Clearinghouse Rule 19-082

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
REPEALING, RENUMBERING AND AMENDING, AMENDING, REPEALING AND RECREATING, AND CREATING RULES

The Wisconsin Natural Resources Board proposes an order to **repeal** NR 660.02 (1) (title), 660.10 (82) (Note), 664.0174 (Note), 664.0340 (2) (e), 665.0174 (Note), 665.0195 (4), 673.20 (1) to (3), 673.40 (1) to (3), 673.56 (1) and (2), and 673.70 (4); to **renumber and amend** NR 663.12 and 668.50 (1) (b) 1., 673.20 (intro.), 673.40 (intro.); to **amend** NR 149.13 Table 2 footnote 2., 211.10 (2) (a), 211.17 (1) (b), 502.09 (6) (a), 506.095 (3) (b) (Note), 660.02 (2), 660.10 (29) (a), (31), (34), (43) (a), (b), (46), (52), (53), (76), (82), (83m), (108), (108m) (a) 1., 3., (b), (122), (126) (b), and (141) (b), 660.11 (2) (a), (f), (3) (b) 1., 8., 11., (4) (a), and (7) (intro.), 660.20 (1), 660.30 (1), 660.31 (3) (intro.), (a), (b), and (e), 660.33 (1), 660.40 (1), 660.41 (1), 663.10 Subchapter A (Note), 663.20 (5) (b) and (6) (b), 663.21 (1) and (2) (a), 664.0001 (7) (a) (Note), (b) and (c), 664.0004, 664.0015 (2) (d), 664.0052 (2), 664.0056 (7) (Note), 664.0071 (1) (b) 4., 664.0072 (1) (c), (4) (a), (5) (f), (6) (a), (g), and (7), 664.0101 (2), 664.0112 (4) (c), 664.0143 (3) (e) and (4) (h), 664.0170 and (Note), 664.0174, 664.0178 (Note), 664.0191 (1), 664.0193 (5) (b) 5. a., b., and (6) (a), 664.0196 (Note), 664.0197 (1), 664.0198 (1) (a) 1., 664.0221 (5) (a), 664.0228 (1) (a), 664.0229 (1) (a), 664.0256 (1) (a), 664.0258 (1), 664.0301 (5) (a), 664.0312 (1) (a), 664.0316 (2) and (5), 664.0340 (2) (a), (c), (3) (a) 2. and 4., 664.0351 (Note), 664.0551 (1), 664.0552 (1), 664.0553 (1), 664.0554 (5) (a) 1., 664.1030 (2) (b), (c), and (3), 664.1050 (2) (b), (c), (6), and (Note), 664.1057 (8) (intro.), 664.1064 (13), 664.1086 (3) (c) 2. a. and b., (d) 1., (4) (c) 2., and (d) 1., 664.1101 (3) (d), 664.1102 (1), 664.1202 (1), 665.0001 (3) (e) (Note) and (g), 665.0052 (2), 665.0056 (7) (Note), NR 665.0071 (1) (b) 1. and 4., 665.0072 (1) (c), (4) (a), (5) (f), (6) (a) and (g), 665.0072 (7), 665.0090 (5), 665.0112 (4) (c) 2., 665.0118 (5) (b), 665.0143 (3) (h), 665.0174, 665.0193 (5) (b) 5. and (6) (a), 665.0196 (Note 1), 665.0197, 665.0198 (1) (a) 1., 665.0221 (4) (a), 665.0228 (1) (a), 665.0229 (1) (a), 665.0256 (1), 665.0258 (1), 665.0301 (4) (a), 665.0312 (1) (a), 665.0316 (2) and (5), 665.0340 (2) (a), (3) (b) and (d), 665.0351 (Note), 665.0381 (Note), 665.0404 (Note), 665.0405 (1) (a), 665.0440 (1), 665.1030 (2) (b), (c), and (Note), 665.1050 (2) (b), (c), and (7) (Note), 665.1063 (2) (d) 2., 665.1064 (13), 665.1087 (3) (c) 2., (d) 1., (4) (c) 2., and (d) 1., 665.1088 (3) (f), 665.1101 (3) (d), 665.1102 (1), 665.1202 (1), 666.020 (2) and (4) (a), 666.022, 666.070 (2) (c), (3) and (4), 666.100 (3) (c) and (4) (c) 1. b., 666.101 (3), 666.103 (1) (f) 4. and (3) (d), 666.108 (3) (Note), 666.112 (1) (b) and (2) (b) 2., 666.202 (1) (b) and (4), 666.210 (4) and (5), 666.220, NR 666.255 (1), 666.305, 666.901 (3), 666.903 (10) (d) (Note), 666 Appendix IX 2.1.6.3.1, Appendix IX 2.1.11 References, Appendix IX 2.2.4.1.7, Appendix IX 2.2.6.3.1, Appendix IX 2.2.6.3.1.1, and Appendix IX 2.2.11 References, 667.0003, 667.0071 (3) and (4), 667.0147 (6) (b) 4. b., 667.0201, 667.0202 (1) (a) 2., 667.1108, 668.07 (title), (1) (intro.), (c) 3., (d) Table, (g), (h), (2) (c) 2., (d) 2., (4) (intro.), (a) 3., (b), and (c) (intro.), 668.31 (1), 668.37, 668.38 (1), 668.39 (1), (2) and (3), 668.40 (7) and (10), 668.45 (1) (intro.), (b) and (2) (a), 668.48 Table and table note 6, 668.50 (1) (a), 668 Appendix VI, 670.001 (3) (intro.), (b) 1., 3., and 11., 670.001 (3) (g), 670.002 (3), 670.019 (1) (b) and (d), 670.042 (1) (a) 2., (b), (2) (b) (intro.), (3) (b) (intro.), (4) (b) 2., (5) (b) 3. and (6) (a), 670.062 (2) (f), 670.066 (4) (c) (intro.), 670.320 (2) (b) 2., 670.432 (1) and (2) (a), 670 Appendix I and Appendix II, 673.03 (2) (a) (Note), (4) (a) 1. and 2., 673.08 (1) (a) and (b), 673.13 (3) (b) 3. and 4., 673.33 (3) (title) and (3) (b) 4., 673.39 (1) (intro.) and (2) (intro.), 673.56, 673.60 (2), 673.62 (1), 673.70 (1) and (2), 673.80 (1), 679.01 (intro.), 679.10 (2) (b) 3., (c), and (5) (a) 2., 679.11 Table 1 table note 2, and 679.40 (3); to **repeal and recreate** NR 660.10 (21), (70m), (107), and (139), 660.11 (7) (a), 660.31 (3) (c) and (d), 661 and Appendix I, VII and VIII, 662, 663.10 (4), 663.20 (1) (a), (b), (3), and (7) (d), 663.21 (2) (b), 664.0012 (1) (a) and (b**),** 664.0071 (1) (b) 5., 6., (c) (intro), (3), (Note), and (4), 664.1200 (Note), 665.0012 (1), 665.0071 (1) (b) 5., 6., (1) (c), (3) and (4), 666.080 (1), 668.01 (5) (a), 668.07 (2) (f), and 668.40 Table; and to **create** NR 660.02 (3) and (4), 660.04, 660.05, 660.10 (3m), (3p), (3t), (3w), (3y), (9t), (13m), (19e), (20m), (28m), (28p), (28s), (50m), (51m), (51t),

(65m), (67m), (83t), (97m), (97t), (100m) and (138m), 660.11 (5) (b), (c), (8) (zb), (9), (10), (11) and (12), 660.30 (4) and (5), 660.33 (3), (4) and (5), 660.34, 660.42, 660.43, 663.12 (2), 663.20 (1) (c), (d), (e), (f), (g) and (i), 663.21 (2) (b) 3., (c), (d) and (3), 663.25, 664.0001 (7) (m), 664.0012 (1) (c) and (d), 664.0071 (1) (c) 1. and 2., (6), (7), (8), (9), (10), (11) and (12), 664.0072 (6) (h), 664.0193 (5) (a) 5., 664.1057 (8) (Note), 665.0001 (3) (p), 665.0020, 665.0071 (6), (7), (8), (9), (10), (11), and (12), 665.0072 (6) (h), 665.0193 (5) (a) 5., 665.0195 (5), 665.1057 (8) (Note), 666.023 (2) (Note), 666.080 (2) (a) 8. and (b) 8., 666 Subchapter P, 667.0071 (1) (f), 668.50 (1) (b) 1. a., b., c., d., (d), and (e), 670.001 (1) (c), 670.001 (3) (b) 12., 670.014 (4) (a) 6., 673.05 (2) (c), and 673.80 (4) relating to the generation, transportation, recycling, treatment, storage, and disposal of hazardous waste, universal waste, pharmaceuticals, and used oil and affecting small business.

WA-06-17

Analysis Prepared by the Department of Natural Resources

1. Statute Interpreted: Sections 227.14 (1m), 289.06, 289.24, 289.30, 289.41, 289.46 and 289.67, Stats., ch. 291, Stats., and s. 299.53, Stats.

2. Statutory Authority: Sections 227.11 (2) (a), 227.14 (1m), 287.03 (1) (a), 289.05, 289.06, 289.21, 289.24, 289.30, 289.31, 289.33, 289.41, 289.43, 289.61, 289.63, 291.05, 291.07, 291.25, 299.05 and 299.53, Stats.

3. Explanation of Agency Authority: The proposed rules replace and update current rules that comprehensively regulate the generation, transportation, recycling, treatment, storage and disposal of hazardous waste and used oil. As authorized by s. 227.14 (1m), Stats., the format of the proposed rules is similar to the federal regulations published in the code of federal regulations by the U.S. Environmental Protection Agency (EPA) under the resource conservation and recovery act (RCRA).

When the Wisconsin legislature passed the Hazardous Waste Management Act in 1977 it set out a declaration of policy in what is now s. 291.001, Stats., regarding hazardous waste management. It found that hazardous wastes, when mismanaged, pose a substantial danger to the environment and public health and safety. To provide for proper management of hazardous waste within the state, the legislature called upon the department to develop and administer a regulatory program that met nine specific objectives.

Section 291.001, Stats., calls for a program that: (1) Relies upon private industry or local units of government to provide hazardous waste management services, (2) Requires the transportation, storage, treatment and disposal of hazardous wastes to be performed only by licensed operators, (3) Requires generators of hazardous waste to use operators licensed to transport, treat, store or dispose of hazardous wastes, (4) Does not interfere with, control or regulate the manufacturing processes that generate hazardous wastes, (5) Ensures the maintenance of adequate records on, and the reporting of, the disposition of all hazardous wastes either generated in or entering this state, (6) Encourages to the extent feasible, the reuse, recycling or reduction of hazardous wastes, (7) Provides adequate care and protection of disposal facilities after the facilities cease to accept hazardous wastes, (8) Provides members of the public and units of local government an opportunity to review and comment upon the construction, operation and long-term care of hazardous waste management facilities, and (9) Meets the minimum requirements of RCRA.

In furtherance of these stated objectives, the legislature adopted a number of statutes setting out general and specific hazardous waste rulemaking authority. Section 291.05, Stats., for instance, requires the department to adopt by rule EPA's criteria for identifying the characteristics of hazardous waste, and to adopt EPA's lists of hazardous wastes and hazardous constituents, with limited exceptions. Rules

governing hazardous waste transportation are also mandated, as are rules governing specific aspects of hazardous waste generation, treatment, storage and disposal, corrective action, licensing, closure, long term care, and license and plan review and approval fees.

Since hazardous wastes are a subset of solid wastes, rulemaking authority in various sections of ch. 289, Stats., is also relied upon by the department, in particular authority relating to hazardous waste facility location, design, construction, operation, maintenance, closure, long-term care, negotiation and arbitration, financial responsibility and licensing and recycling. Finally, the department also relies in part on rulemaking authority in s. 299.53, Stats., to regulate used oil.

4. Related Statutes or Rules: Chapters 160, 287, 289, 292, 293 and 299, Stats., and chs. NR 2, 140, 141, 500 to 538, 700 to 754 and 812, Wis. Adm. Code.

5. Plain Language Analysis: The rule incorporates into state law changes made to federal hazardous waste regulations by the U.S. Environmental Protection Agency in the following Federal Registers, to the extent allowed by state law:

A. NESHAP Final Standards for HW Combustors Amendments, April 8, 2008.

Summary: The federal amendments to the October 2005 final rule clarify several compliance and monitoring provisions and correct several omissions and typographical errors in the final rule. The amendments contain no unfunded mandates, no information collection burdens, affect only hazardous waste combustion facilities with specific North American Industry Classification System (NAICs) codes, and at present there are no known affected entities operating in Wisconsin. (Corrections and clarifications; minimal to no impact; EPA checklist 217)

Addressed in NR 664.0340, Wis. Adm. Code.

B. F019 Exemption for Waste Water Treatment Sludges from Auto Manufacturing Zinc Phosphating Process, June 4, 2008.

Summary: The F019 listing will be amended to exempt wastewater treatment sludges generated from zinc phosphating, when such phosphating is used in the motor vehicle manufacturing process, provided that the wastes are not placed outside on the land prior to shipment to a landfill for disposal, and the wastes are placed in landfill units that are subject to or meet the specified landfill design criteria. This F019 listing does not affect any other wastewater treatment sludges. (Relaxation/exemption; EPA checklist 218)

Addressed in NR 661.0031, Wis. Adm. Code.

C. OECD Requirements; Export Shipments of Spent Lead – Acid Batteries, January 8, 2010.

Summary: The amendments implement changes to the agreements concerning the transboundary movement of hazardous waste among countries belonging to the Organization for Economic Cooperation and Development (OECD), including notice and consent requirements, exception reports, import consent documentation and manifest requirements. (Required to maintain equivalency; not administered by the state; EPA Checklist 222)

Addressed in NR 662.010, 662.055, 662.080 to 662.089, 664.0071, 665.0012 and 665.0071, Wis. Adm. Code.

D. HW Technical Corrections and Clarifications, March 18, 2010.

Summary: These amendments include technical changes to correct existing errors, clarify existing parts of the hazardous waste regulatory program, and update references to Department of Transportation (DOT) regulations that have changed since the publication of various RCRA final rules. (Revisions to manifest regulations required to maintain equivalency; EPA Checklist 223)

Addressed in NR 660.10, 661.0001 to 661.0007, 661.0023, 661.0030 to 661.0033, 662.010 662.011, 662.23, 662.034, 662.041, 662.042, 662.060, 663.12, 664.0052, 664.056, 664.072, 664.314, 664.316, 664.552, 665.056, 665.072, 665.314, 665.316, 666.020, 666.022, 666.070, 666.080, 666.101, 668.40, 668.48, and 670.004, Wis. Adm. Code.

E. Removal of Saccharin and its Salts from the List of HW, December 17, 2010.

Summary: The rule removes saccharin and its salts from the lists of hazardous constituents and commercial chemical products which are hazardous wastes when discarded or intended to be discarded. (Relaxation; EPA Checklist 225).

Addressed in NR 668.40, Wis. Adm. Code.

F. Revisions of the Treatment Standards for Carbamate Wastes, June 13, 2011.

Summary: The rule provides, as an alternative standard, for the use of the best demonstrated available technologies (BDAT) for treating hazardous wastes from the production of carbamates and carbamate commercial chemical products, off-specification or manufacturing chemical intermediates, and container residues that become hazardous wastes when they are discarded or intended to be discarded. In addition, this action removes carbamate Regulated Constituents from the table of Universal Treatment Standards. (Relaxation; EPA Checklist 227)

Addressed in NR 668.40 and 668.48, Wis. Adm. Code.

G. HW Technical Corrections and Clarifications, May 14, 2012.

Summary: The rule corrects a typographical error in the entry "K107" in the table listing hazardous wastes from specific sources in NR 661.0032 [40 CFR 261.32]; and makes a conforming change at NR 666.020 (2) [40 CFR 266.20(b)] to clarify that a recycling facility must keep a one-time certification and notification related to recyclable materials being used in a manner constituting disposal. (Technical correction; neither more or less stringent; EPA Checklist 228)

Addressed in NR 661.0032, Wis. Adm. Code.

H. HW Manifest Rule, February 7, 2014.

Summary: New requirements will authorize the use of electronic manifests (or e-Manifests) as a means to track off-site shipments of hazardous waste from a generator's site to the site of the receipt and disposition of the hazardous waste. (Required to maintain equivalency; paperwork reduction; EPA Checklist 231)

Addressed in NR 660.02, 660.10, 662.020, 662.024, 662.025, 663.20, 663.25, 664.0071 and 665.0071, Wis. Adm. Code.

I. Revisions to the Export Provisions of the CRT Rule, June 26, 2014.

Summary: The amendment revises certain export provisions of the cathode ray tube (CRT) final rule published on July 28, 2006. The revisions will allow EPA to better track exports of CRTs for reuse and recycling in order to ensure safe management of these materials. (Mandatory to retain equivalency; not administered by the state; EPA Checklist 232)

Addressed in NR 660.10, 661.0039 and 661.0041, Wis. Adm. Code.

J. Revisions to the Definition of Solid Waste, January 13, 2015.

Summary: The rule revises several recycling-related provisions associated with the definition of solid waste used to determine hazardous waste regulation under Subtitle C of the Resource Conservation and Recovery Act (RCRA). The purpose of these revisions is to ensure that the hazardous secondary material recycling regulations, as implemented, encourage reclamation in a way that does not result in increased risk to human health and the environment from discarded hazardous secondary material. (Relaxation; partially mandatory to retain equivalency; EPA Checklists 233A, 233B, 233C, 233D, 233D2, and 233E)

Addressed in NR 660.10, 660.30, 660.31, 660.34, 660.33, 660.42, 660.43, 661.0001, 661.0002, 661.0004, 661.0400, 661.0410, 661.0411 and 661.0420, Wis. Adm. Code.

K. Vacatur of the Comparable Fuels Rules and the Gasification Rule, April 8, 2015.

Summary: This is a revision of regulations associated with the comparable fuels exclusion and the gasification exclusion, originally issued by EPA under RCRA. (Mandatory to retain equivalency; Relaxation; no known entities in Wisconsin; EPA Checklist 234)

Addressed in NR 660.10, 661.004 and 661.0038, Wis. Adm. Code.

L. Disposal of Coal Combustion Residuals from Electric Utilities, April 17, 2015.

Summary: This rule provides exemption from the definition of hazardous waste, wastes generated primarily from processes that support the combustion of coal or other fossil fuels that when co-disposed with coal combustion residuals are not subject to hazardous waste regulations. (Relaxation; EPA Checklist 235)

Addressed in NR 661.0004, Wis. Adm. Code.

M. Imports and Exports of Hazardous Waste, November 28, 2016.

Summary: The rule amends existing regulations regarding the export and import of hazardous wastes from and into the United States. These changes provide greater protection to human health and the environment by making existing export and import related requirements more consistent with the current import-export requirements for shipments between members of OECD. (Mandatory to retain equivalency; not administered by the state, EPA Checklist 236)

Addressed in NR 660.10, 660.11, 661.0004, 661.0006, 661.0039, 662.010, 662.012, 662.041, 662.080 to 662.084, 663.10, 663.20, 664.0012, 664.0071, 665.0012, 665.0071, 666.070, 666.080, 667.0071, 673.20, 673.39, 673.40, 673.56, 673.6 and 673.70, Wis. Adm. Code.

N. Hazardous Waste Generator Rule Improvements, November 28, 2016.

Summary: The rule amends the existing hazardous waste generator regulatory program by reorganizing the hazardous waste generator regulations to make them more user-friendly and thus improve their usability by the regulated community; providing a better understanding of how the RCRA hazardous waste generator regulatory program works; addressing gaps in the existing regulations to strengthen environmental protection; providing greater flexibility for hazardous waste generators to manage their hazardous waste in a cost-effective and protective manner; and making technical corrections and conforming changes to address inadvertent errors and remove obsolete references to programs that no longer exist. (Most provisions are equivalent or less stringent; clarifications; EPA Checklist 237)

Addressed in NR 660.03, 660.10, 660.11, 661.0001, 661.0004 to 661.0006, 661.0033, 661.0042, 662.001, 662.010 to 662.018, 662.032, 662.034, 662.035, 662.040, 662.041, 662.043, 662.044, 662.200 to 662.204, 662.206 to 662.214, 662.216, 662.230 to 662.233, 662.250 to 662.256, 662.260 to 662.265, 663.12, 664.0001, 664.0015, 664.0071. 664.0075. 664.0170, 664.0174. 664.0191, 664.1030, 664.1050. 664.1101. 665.0001, 665.0015, 665.0071, 665.0075, 665.0174. 665.0195, 665.1030. 665.1050, 665.1101, 666.080, 666255, 667.0071, 668.01, 668.07, 668.50, 670.001, 670.042. 673.08 and 679.10, Wis. Adm. Code.

O. Confidentiality Determinations for Hazardous Waste Export and Import Documents, December 26, 2018

Summary: This rule amends existing regulations regarding the export and import of hazardous wastes from and into the United States. Specifically, this rule applies a confidentiality determination such that no person can assert confidential business information claims for documents related to the export, import, and transit of hazardous waste and export of excluded cathode ray tubes. EPA is making these changes to apply a consistent approach in addressing confidentiality claims for export and import documentation. (Mandatory to retain equivalency; clarifications; not administered by the state; EPA Checklist 238)

Addressed in NR 660.02, 661.0039, 662.083, 662.083 and 662.084, Wis. Adm. Code.

P. Hazardous Waste Electronic Manifest System User Fee Rule, January 3, 2018

Summary: This rule establishes the methodology used to determine and revise the user fees applicable to the electronic and paper manifests to be submitted to the national electronic manifest system (e-Manifest system) that EPA is developing under the Hazardous Waste Electronic Manifest Establishment Act, P.L. 112-195, which directs EPA to establish a national electronic manifest system. After the e-Manifest system's implementation date, certain users of the hazardous waste manifest will be required to pay a prescribed fee for each electronic and paper manifest they use and submit to the national system so that EPA can recover the costs of developing and operating the national e-Manifest system. This final rule also announces the June 30, 2018 date when EPA expected the system to be operational and when this rule and the earlier promulgated One Year Rule will go into effect. EPA began accepting manifest submissions and collecting the corresponding manifest submission fees on this date. (Mandatory to retain equivalency; not administered by the state; EPA Checklist 239)

Addressed in NR 660.04, 660.05, 662.020, 662.021, 662.024, 663.20, 663.21, 664.0071, 664.1086, 664.1300, 664.1310 to 664.1316, 665.0071, 665.1087 665.1300, 665.1310 to 665.1310, Wis. Adm. Code.

Q. Safe Management of Recalled Airbags, November 30, 2018

Summary: This rule provides a conditional exemption from hazardous waste requirements for entities that remove airbag modules and inflators (i.e. airbag waste) from automobiles. Under this new rule, the entities that generate the airbag waste are "airbag waste handlers" and include automobile dealerships, automotive salvage and scrap yards, independent repair facilities and collision centers. The exemption relates to the generation and accumulation of airbag waste at the airbag waste handler location and during transport to an airbag waste collection facility or designated facility, as long as certain conditions are met. Once collected at the airbag waste collection facility, the airbag waste will be managed as RCRA hazardous waste and must be sent to RCRA disposal or recycling facilities. (Relaxation; no known entities in Wisconsin; EPA Checklist 240)

Addressed in NR 660.10, 661.0004 and 662.014, Wis. Adm. Code.

R. Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, December 11, 2018

Summary: This rule establishes cost-saving, streamlined standards for handling hazardous waste pharmaceuticals to better fit the operations of the healthcare sector, provides regulatory certainty for healthcare facilities sending unused, unsaleable prescription hazardous waste pharmaceuticals to reverse distributors to receive manufacturer credit, and the rule incorporates flexibilities to accommodate current reverse distribution business practices. In addition, FDA-approved, over-the-counter nicotine replacement therapies (i.e., nicotine patches, gums and lozenges) will no longer be considered hazardous waste when discarded, which will result in significant cost savings and burden reduction in the management of these types of nicotine wastes. (Relaxation. EPA Checklist 241)

Addressed in NR 661.0004, 662.010, 664.0001 ,665.0001, 666 Subpart P, 668.07, 668.50, 670.001 and 673.80, Wis. Adm. Code.

Many of these amendments, driven by federal-level changes implemented to improve clarity for the hazardous waste generator community, led to the restructuring and renumbering of existing code. In addition, minor updates have been made to the list of technical standards incorporated by reference into s. NR 660.11, Wis. Adm. Code.

6. Summary of, and Comparison with, Existing or Proposed Federal Statutes and Regulations: The rule revisions incorporate new Resource Conservation and Recovery Act (RCRA) regulations adopted by EPA between 2008 and 2018, and correct errors in the current rules. Section 291.05, Stats., requires the department to adopt by rule EPA's criteria for identifying the characteristics of hazardous waste, and to adopt EPA's lists of hazardous wastes and hazardous constituents, with limited exceptions. Rules governing hazardous waste transportation are also mandated, as are rules governing specific aspects of hazardous waste generation, treatment, storage and disposal, corrective action, licensing, closure, long term care, and license and plan review and approval fees.

The new rules will include hazardous waste (HW) combustor final standards, conditional exemptions from hazardous waste regulations for specific waste streams, import/export requirements, e-Manifest regulations, revisions to the definition of solid waste and generator improvement regulations to improve

clarity and usability, and new standards to improve the management of hazardous waste pharmaceuticals. New rules that are regulated or implemented at the federal level, for example e-Manifest system management, are required to be adopted by rule as part of state authorization requirements and by statute, and are identified in the summary statements of 5.A through R above. To the extent possible, the Department intends to adopt the content and format of the federal regulations, to be equivalent. The Department has identified that Wisconsin will differ from federal regulations in the following:

A. Chapter NR 661: Hazardous Waste Identification and Listing: Clarified for handlers and transporters that the s. NR 661.09 universal waste exemption from the LDR requirements is limited to LDR notification.
B. Chapter NR 662: Hazardous Waste Generator Standards: Clarifies what constitutes mixing materials with a hazardous waste for a very small quantity generators (VSQG). This is not a new requirement under NR 662.013 but a clarification on what 'mixing' means.
C. Chapter NR 664: Hazardous Waste Treatment, Storage and Disposal Facility Standards: Under NR 664.0193 (5) (a) 5. Wisconsin will require that secondary containment systems have an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete. This is a new requirement but has been a long-standing EPA and Wisconsin policy.
D. Chapter NR 665: Interim License Hazardous Waste Treatment, Storage and Disposal Facility Standards: Under NR 665.0193 (5) (a) 5. Wisconsin will require that secondary containment systems have an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete. This is a new requirement but has been a long-standing EPA and Wisconsin policy.
E. Chapter NR 673: Universal Waste Management Standards: Under s. NR 673.05 (2) (c) Lamps that are intentionally broken or crushed by the generator as defined in s. NR 673.09 (4) are not covered under ch. NR 673 Universal Waste Management Standards. This is a new requirement but has been a long-standing EPA and Wisconsin policy.

7. Comparison with Similar Rules in Adjacent States: Minnesota, Illinois, and Michigan have state hazardous waste programs. In that capacity, they are working to promulgate these rules and include these regulations as part of their EPA authorized program. The status of this process in each state is found below. Iowa does not have RCRA hazardous waste authorization from EPA. Instead, EPA's Region 7 office administers and enforces the RCRA hazardous waste management requirements in Iowa.

Summary of neighboring states	**Iowa***		**Illinois**		**Michigan**		**Minnesota**	
Rule Change - Date	**Adopted**	**Authorized**	**Adopted**	**Authorized**	**Adopted**	**Authorized**	**Adopted**	**Authorized**
A. NESHAP Final Standards for HW Combustors Amendments, April 8, 2008. Checklist 217	N/A	N/A	**Y**	**Y (3/10/2017)**	**Y**	**Y (8/28/2015)**	**N**	**N**
B. F019 Exemption for Waste Water Treatment Sludges from Auto Manufacturing Zinc Phosphating Process, June 4, 2008. Checklist 218	N/A	N/A	**Y**	**N**	**Y**	**Y (8/28/2015)**	**Y**	**Y (6/23/2011)**
C: OECD Requirements; Export Shipments of spent Lead – Acid Batteries, January 8, 2010. Checklist 222	N/A	N/A	**Y**	**N**	**Y**	**Y (8/28/2015)**	**N**	**N**
D. HW Technical Corrections and Clarifications, March 18, 2010. Checklist 223.	N/A	N/A	**Y**	**N**	**Y**	**Y (8/28/2015)**	**N**	**N**

E. Removal of Saccharin and its Salts from the list of HW, December 17, 2010. Checklist 225	N/A	N/A	Y	N	Y	Y (8/28/2015)	N	N
F. Revisions of the treatment Standards for Carbamate Wastes, June 13, 2011. Checklist 227	N/A	N/A	Y	N	Y	Y (8/28/2015)	N	N
G. HW Technical Corrections and Clarifications, May 14, 2012. Checklist 228	N/A	N/A	Y	N	Y	Y (8/28/2015)	N	N
H. HW Manifest Rule, February 7, 2014, Checklist 231	N/A	N/A	Y	N	Y	N	N	N
I. Revisions to the Export Provisions of the CRT Rule, June 26, 2014, Checklist 232	N/A	N/A	Y	N	Y	N	N	N
J. Revisions to the Definition of Solid Waste, January 13, 2015, Checklist 233	N/A	N/A	Y	N	Y	N	N	N
K. Vacatur of the Comparable Fuels Rules and the Gasification Rule, April 8, 2015, Checklist 234	N/A	N/A	Y	N	Y	N	N	N
L. Disposal of Coal Combustion Residuals from Electronic Utilities, April 17, 2015, Checklist 235	N/A	N/A	Y	N	Y	N	N	N
M. Imports and Exports of Hazardous Waste, November 28, 2016, Checklist 236	N/A	N/A	N	N	N	N	N	N
N. Hazardous Waste Generator Rule Improvements, November 28, 2016, Checklist 237	N/A	N/A	Y	N	N	N	N	N
O Confidentiality Determinations for Hazardous Waste Export and Import Documents, December 26, 2017, Checklist 238	N/A	N/A	N	N	N	N	N	N
P Hazardous Waste Electronic Manifest User Fee Rule, January 3,2018, Checklist 239	N/A	N/A	N	N	N	N	N	N
Q, Safe Management of Recalled Airbags, November 30, 2018, Checklist 240	N/A	N/A	N	N	N	N	N	N
R. Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, December 11, 2018, Checklist 241	N/A	N/A	N	N	N	N	N	N

8. Summary of Factual Data and Analytical Methodologies Used and How Any Related Findings Support the Regulatory Approach Chosen: Not applicable. The proposed rules are required by statute to maintain consistency with federal rules and ensure program authorization through RCRA.

9. Analysis and Supporting Documents Used to Determine the Effect on Small Business or in Preparation of an Economic Impact Report: The determination that these rules will have minimal impact on small businesses was reached through analysis of the reports created by EPA during the promulgation process at the federal level, and the evaluation of impacted state entities and business sectors. Each federal revision contains an economic impact assessment, fiscal estimate, and language discussing which sectors, businesses, and entities will be affected by the change. While Wisconsin small business will be regulated under these revisions, the majority of the revisions are considered relaxations or clarifications, and as such will have minimal adverse economic impacts.

10. Effect on Small Business (initial regulatory flexibility analysis): Promulgation of these rules will result in minimal additional costs to small business. Federal rules require an economic impact

analysis for promulgation, and without exception these changes were deemed by federal analysis to cause "minimal impact, with little or no change in market prices or production." Additionally, several of the rule changes are relaxations or partial relaxations (B, E, F, J, K, L, N, Q, and R) and as such will result in either direct (decreased regulatory costs) or indirect (administrative time savings) cost savings for businesses and entities in affected business sectors.

The majority of the changes that are not considered relaxations are either mandatory, not administered by the state, or were promulgated under the authority of RCRA as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA). Regulations promulgated under HSWA are immediately effective in all states, regardless of state authorization status. Entities and businesses in affected sectors have already implemented many of the changes and will thus be additionally unaffected by the HSWA rules. The effect of these proposed rules will be minimal and may be advantageous to small business, as they are primarily paperwork reductions, clarifications and relaxations of existing rules. Additionally, the proposed regulations don't alter fee schedules in such a way that there would be any negative effect on the small business community of Wisconsin.

11. Agency Contact Person:

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Hazardous Waste Prevention and Management
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(608) 267-3132

12. Place where comments are to be submitted and deadline for submission:

Written comments may be submitted at the public hearings, by regular mail, or email to:

Ruth O'Donnell
Hazardous Waste Prevention and Management
Department of Natural Resources
141 NW Barstow, RM 180
Waukesha, WI 53188
DNRHazardousWasteRulesandGuidance@wisconsin.gov.

Written comments may also be submitted to the Department at:
DNRAdminRulesComments@Wisconsin.gov

Public hearings will be held at the following times and locations:

- July 25, 2019 – 9:00 a.m. – Department of Natural Resources Green Bay Service Center, 2984 Shawano Avenue, Green Bay WI; Lake Michigan Conference Room
- July 26, 2019 – 9:00 a.m. – Department of Natural Resources Milwaukee Service Center, 2300 N. Martin Luther King, Jr. Dr., Milwaukee, WI; Room 141
- July 29, 2019 – 9:00 a.m. – Department of Natural Resources, 101 S. Webster St., Madison, WI; Room G27A

The deadline for submitting public comments is August 5, 2019.

The consent of the Attorney General will be requested for the incorporation by reference of s. NR 660.11 Wis. Adm. Code. This section is adopted under ss. 227.21 (2) (b) and 291.05, Stats., to incorporate by reference testing, monitoring, and other technical standards, established by the federal government and technical societies and organizations, to which reference is made in chs. NR 660 to 670.

SECTION 1. NR 149.13 Table 2 footnote 2 is amended to read:

NR 149.13 Table 2 footnote 2. Waste characterization assays are offered for solid matrices (Tier 1) only and shall include tests required to determine if a material meets the hazardous definition in s. NR ~~661.003~~ 661.0003 and those used to fulfill the requirements of waste analysis plans under ch. NR 664 or 665.

SECTION 2. NR 211.10 (2) (a) is amended to read:

NR 211.10 (2) (a) Pollutants that create or contribute to a fire or explosion hazard in the POTW, including waste streams with a closed cup flashpoint of less than 140° F or 60° C using the test methods in s. NR ~~661.21~~ 661.0021.

SECTION 3. NR 211.17 (1) (b) is amended to read:

NR 211.17 (1) (b) Any amount of a substance that would be an acute hazardous waste according to s. NR ~~661.30 (4) or 661.33 (5)~~ 660.10 (3m) if otherwise disposed.

SECTION 4. NR 502.09 (6) (a) is amended to read:

NR 502.09 (6) (a) An ash testing program shall be completed within 60 days after construction and shake-down of the incinerator. Representative samples of both fly ash and bottom ash shall be tested for physical characteristics, bulk chemical composition, analysis using the appropriate leaching test and analysis using the toxicity characteristics leaching procedure as specified in s. NR ~~661.24~~ 661.0024. Sample collection methods, the number of tests, detection limits, and parameters to be tested for will be specified by the department.

SECTION 5. NR 506.095 (3) (b) (Note) is amended to read:

NR 506.095 (3) (b) **Note:** The department encourages that solid waste material from which oil is removed, such as used oil filters that have been drained in accordance with s. NR ~~661.04~~ 661.0004 (2) (m), be recycled. If the material cannot be recycled, it should be properly characterized and disposed of in accordance with the requirements of chs. NR 500 to 538 and 660 to 679.

SECTION 6. NR 660.02 (1) (title) is repealed.

SECTION 7. NR 660.02 (2) is amended to read:

NR 660.02 (2) ~~CONFIDENTIALITY OF INFORMATION~~ ~~Any~~Except as provided under subs. (3) and (4), any person who submits information to the department according to chs. NR 660 to 679 may seek confidential status for part or all of that information, except emission data, by following the procedures set forth in s. 291.15 or 299.55, Stats., and s. NR 2.19. Information granted confidential status will be disclosed by the department only to the extent, and by means of the procedures, set forth in s. 291.15 or 299.55, Stats., and s. NR 2.19. However, if no application for confidential status accompanies the information when it is received by the department, it may be made available to the public without further notice to the person submitting it.

SECTION 8. NR 660.02 (3) and (4) are created to read:

NR 660.02 (3) (a) *Manifest claim of confidential status*. No claim of confidential status may be asserted by any person with respect to information entered on a hazardous waste manifest, EPA Form 8700-22; a hazardous waste manifest continuation sheet, EPA Form 8700-22A; or an electronic manifest format that may be prepared and used in accordance with s. NR 662.020 (1) (c).

(b) *Availability of manifest.* EPA will make any electronic manifest that is prepared and used in accordance with s. NR 662.020 (1) (c), or any paper manifest that is submitted to the system under ss. NR 664.0071 or 665.0071 available to the public under this section when the electronic or paper manifest becomes a complete and final document. Electronic manifests and paper manifests submitted to the system are considered by EPA and the department to be complete and final documents and publicly available information after 90 days have passed since the delivery to the designated facility of the hazardous waste shipment identified in the manifest.

(4) (a) After June 26, 2018, no claim of business confidentiality may be asserted by any person with respect to information contained in cathode ray tube export documents prepared, used, and submitted under ss. NR 661.0039 (1) (e) and 661.0041 (1), and with respect to information contained in hazardous waste export, import, and transit documents prepared, used, and submitted under ss. NR 662.082, 662.083, 662.084, 663.20, 664.0012, 664.0071, 665.0012,

665.0071, and 667.0071, whether submitted electronically into EPA's waste import export tracking system, or its successor or in paper format.

(b) EPA will make any cathode ray tube export documents prepared, used, and submitted under ss. NR 661.0039 (1) (e) and 661.0041(1), and any hazardous waste export, import, and transit documents prepared, used, and submitted under ss. NR 662.082, 662.083, 662.084, 663.20, 664.0012, 664.0071, 665.0012, 665.0071, and 667.0071 available to the public under this section when these electronic or paper documents are considered by EPA to be complete and final documents. These submitted electronic and paper documents related to hazardous waste exports, imports and transits, and cathode ray tube exports are considered by EPA to be final documents on March 1 of the calendar year after the related cathode ray tube exports or hazardous waste exports, imports, or transits occur.

SECTION 9. NR 660.04 is created to read:

NR 660.04 **Manifest copy submission requirements for certain interstate waste shipments.** (1) In any case in which the state in which waste is generated, or the state in which waste will be transported to a designated facility, requires that the waste be regulated as a hazardous waste or otherwise be tracked through a hazardous waste manifest, the designated facility that receives the waste shall do all of the following, regardless of the state in which the facility is located:

(a) Complete the facility portion of the applicable manifest.

(b) Sign and date the facility certification.

(c) Submit to the e-Manifest system a final copy of the manifest for data processing purposes.

(d) Pay the appropriate per manifest fee to EPA for each manifest submitted to the e-Manifest system, subject to the fee determination methodology, payment methods, dispute procedures, sanctions, and other fee requirements specified in subpart FF of 40 CFR 264 of this chapter.

SECTION 10. NR 660.05 is created to read:

NR 660.05 Applicability of electronic manifest system and user fee requirements to facilities receiving state-only regulated waste shipments. (1) In this, "state-only regulated waste" means any of the following:

(a) A non-RCRA waste that a state regulates more broadly under its state regulatory program.

(b) A RCRA hazardous waste that is federally exempt from manifest requirements, but not exempt from manifest requirements under state law.

(2) In any case in which a state requires a RCRA manifest to be used under state law to track the shipment and transportation of a state-only regulated waste to a receiving facility, the facility receiving such a waste shipment for management shall do all of the following:

(a) Comply with the provisions of ss. NR 664.0071, use of the manifest, and 664.0072, manifest discrepancies.

(b) Pay the appropriate per manifest fee to EPA for each manifest submitted to the e-Manifest system, subject to the fee determination methodology, payment methods, dispute procedures, sanctions, and other fee requirements specified in subpart FF of 40 CFR part 264.

SECTION 11. NR 660.10 (3m), (3p), (3t), (3w), (3y), (9t), (13m), (19e) and (20m) are created to read:

NR 660.10 (3m) "Acute hazardous waste" means a hazardous waste that meets the listing criteria specified in s. NR 661.0011 (1) (b) and therefore is either listed in s. NR 661.0031 with the assigned hazard code of (H) or is listed in s. NR 661.0033 (5).

(3p) "AES filing compliance date" means the date that EPA announces in the Federal Register, on or after which exporters of hazardous waste and exporters of cathode ray tubes for recycling are required to file EPA information in the Automated Export System or its successor system, under the International Trade Data System, ITDS, platform.

(3t) "Airbag waste" means any hazardous waste airbag module or hazardous waste airbag inflator.

(3w) "Airbag waste collection facility" means any facility that receives airbag waste from an airbag waste handler subject to regulation under s. NR 661.0004 (10), and accumulates the waste for more than 10 days.

(3y) "Airbag waste handler" means any person, by site, who generates airbag waste that is subject to regulation under this chapter.

(9t) "Central accumulation area" means any on-site hazardous waste accumulation area with hazardous waste accumulating in units subject to either s. NR 262.016 for small quantity generators or s. NR 662.017 for large quantity generators. A central accumulation area at an eligible academic entity that chooses to operate under ch. NR 662 subch. K is also subject to s. NR 662.211 when accumulating unwanted material or hazardous waste.

(13m) "Contained" means held in a unit, including a land-based unit as defined in this subchapter, that meets all of the following criteria:

(a) The unit is in good condition, with no leaks or other continuing or intermittent unpermitted releases of the hazardous secondary material to the environment, and is designed, as appropriate for the hazardous secondary material, to prevent releases of hazardous secondary material into the environment. Unpermitted releases are releases that are not covered by a permit, such as a permit to discharge to water or air, and may include releases through surface transport by precipitation runoff, releases to soil and groundwater, wind-blown dust, fugitive air emissions, and catastrophic unit failures.

(b) The unit is properly labeled or otherwise has a system, such as a log, to immediately identify the hazardous secondary material in the unit.

(c) The unit holds hazardous secondary material that are compatible with other hazardous secondary material placed in the unit and is compatible with the materials used to construct the unit and addresses any potential risks of fires or explosions.

(d) Hazardous secondary material in units that meet the applicable requirements under chs. NR 664 and NR 665 are presumptively contained for the purposes of this subsection.

(19e) "CRT exporter" means any person in the United States who initiates a transaction to send used CRTs outside the United States or its territories for recycling or reuse, or any intermediary in the United States arranging for such export.

(20m) "Department of transportation" or "DOT" means the U.S. department of transportation.

SECTION 12. NR 660.10 (21) is repealed and recreated to read:

NR 660.10 (21) "Designated facility" means any of the following:

(a) A hazardous waste, treatment, storage or disposal facility that meets one of the following conditions:

1. Has received a license, or interim license, according to ch. NR 670.

2. Has received a permit, or interim permit, from a state authorized according to 40 CFR part 271.

3. Is regulated under s. NR 661.0006 (3) (b) or subch. F of ch. NR 666,

4. Has been designated on the manifest by the generator pursuant to s. NR 662.020.

(b) A generator site designated on the manifest to receive its waste as a return shipment from a facility that has rejected the waste according to s. NR 664.0072 (6) or 665.0072 (6).

(c) If a waste is destined to a facility in an authorized state that has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility shall be a facility allowed by the receiving state to accept such waste.

SECTION 13. NR 660.10 (28m), (28p) and (28s) are created to read:

NR 660.10 (28m) "Electronic import-export reporting compliance date" means the date that EPA announces in the Federal Register, on or after which exporters, importers, and receiving facilities are required to submit certain export and import related documents to EPA using EPA's waste import export tracking system, or its successor system.

(28p) "Electronic manifest" or "e-Manifest" means the electronic format of the hazardous waste manifest that is obtained from EPA's national e-Manifest system and transmitted electronically to the system, and that is the legal equivalent of EPA Forms 8700-22, Manifest, and 8700-22A, Continuation Sheet.

(28s) "Electronic Manifest system" or "e-Manifest system" means EPA's national information technology system through which the electronic manifest may be obtained, completed, transmitted, and distributed to users of the electronic manifest and to regulatory agencies.

SECTION 14. NR 660.10 (29) (a), (31), (34), (43) (a), (b) and (46) are amended to read:

NR 660.10 (29) (a) Is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in s. NR ~~661.22~~ 661.0022, or they are listed in subch. D of ch. NR 661 only for this reason.

(31) "EPA" or "U.S. EPA" means the United States environmental protection agency.

(34) "EPA identification number" or "EPA ID number" means the number assigned by EPA to each generator, transporter, and treatment, storage or disposal facility.

(43) (a) All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste, or for managing hazardous secondary material prior to reclamation. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

(b) For the purpose of implementing corrective action under s. NR 664.0101 or 667.0101, all contiguous property under the control of the owner or operator seeking a license under ch. 291, Stats., and ~~42 USC 6928 (h)~~ Subtitle C of RCRA. This definition also applies to facilities implementing corrective action under s. 291.37, Stats., and 42 USC 6928(h).

(46) "Final closure" means the closure of all hazardous waste management units at the facility according to all applicable closure requirements so that hazardous waste management activities under chs. NR 664 and 665 are no longer conducted at the facility unless subject to the provisions in s. NR ~~662.034~~662.015 and 662.017.

SECTION 15. NR 660.10 (50m), (51m) and (51t) are created to read:

NR 660.10 (50m) "Generating facility" as used in s. NR 661.10 (51t) means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator.

(51m) "Hazardous secondary material" means a secondary material, such as spent material, by-product, or sludge, that, when discarded, would be identified as a hazardous waste as defined in s. NR 660.10 (52).

(51t) "Hazardous secondary material generator" means any person whose act or process produces hazardous secondary material at the generating facility. In this subsection, "generating facility" means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator. For the purposes of ss. NR 661.0002 (1) (b) 2. and 661.0004 (1) (w), a facility that collects hazardous secondary material from other persons is not the hazardous secondary material generator.

SECTION 16. NR 660.10 (52) and (53) are amended to read:

NR 660.10 (52) "Hazardous waste" means a hazardous waste as defined in s. NR ~~661.03~~ 661.0003.

(53) "Hazardous waste constituent" means a constituent that caused the department to list the hazardous waste in subch. D of ch. NR 661, or a constituent listed in table 1 of s. NR ~~661.24~~ 661.0024.

SECTION 17. NR 660.10 (65m) and (67m) are created to read:

NR 660.10 (65m) "Intermediate facility" means a facility that stores hazardous secondary material for more than 10 days, other than a hazardous secondary material generator or reclaimer of such material.

(67m) "Land-based unit" means an area where hazardous secondary material are placed in or on the land before recycling. This definition does not include land-based production units.

SECTION 18. NR 660.10 (70m) is repealed and recreated to read:

NR 660.10 (70m) "Large quantity generator" means a generator that generates any of the following amounts in a calendar month:

(a) Greater than or equal to 1,000 kilograms of non-acute hazardous waste.

(b) Greater than 1 kilogram of acute hazardous waste listed in s. NR 661.0031 or 661.0033 (5).

(c) Greater than 100 kilograms of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in s. NR 661.0031 or 661.0033 (5).

SECTION 19. NR 660.10 (76) and (82) are amended to read:

NR 660.10 (76) "Manifest" has the meaning given in s. 291.01 (11), Stats. "Manifest" also means the shipping document EPA Form 8700–22 and, if necessary, EPA form 8700-22A, or the electronic manifest, originated and signed by the generator or offeror according to the instructions in the appendix to 40 CFR part 262 and the applicable requirements of chs. NR 662 to 665.

(82) "New hazardous waste management facility" or "new facility" means a facility ~~which~~ that began operation, or for which construction commenced after ~~October 21, 1976~~November, 19, 1980.

SECTION 20. NR 660.10 (82) (Note) is repealed.

SECTION 21. NR 660.10 (83m) is amended to read:

NR 660.10 (83m) "No free liquids," as used in ss. NR ~~661.04~~ 661.0004 (1) (z) and ~~661.04~~ 661.0004 (2) (r), means that solvent−contaminated wipes may not contain free liquids as determined by Method 9095B Paint Filter Liquids Test in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA SW–846, incorporated by reference in s. NR 660.11, and that there is no free liquid in the container holding the wipes. "No free liquids" may also be determined using another standard or test method as defined by the department.

SECTION 22. NR 660.10 (83t), (97m), (97t) and (100m) are created to read:

NR 660.10 (83t) "Non-acute hazardous waste" means all hazardous wastes that are not acute hazardous waste.

(97m) "Recognized trader" means a person domiciled in the United States, by site of business, who acts to arrange and facilitate transboundary movements of wastes destined for recovery or disposal operations, either by purchasing from and subsequently selling to United States and foreign facilities, or by acting under arrangements with a United States waste facility to arrange for the export or import of the wastes.

(97t) "Remanufacturing" means processing a higher-value hazardous secondary material in order to manufacture a product that serves a similar functional purpose as the original commercial-grade material. For the purpose of this definition, a hazardous secondary material is considered higher-value if it was generated from the use of a commercial-grade material in a manufacturing process and can be remanufactured into a similar commercial-grade material.

(100m) "Resource conservation and recovery act or RCRA" means a set of state and federal laws governing the management of solid and hazardous waste.

SECTION 23. NR 660.10 (107) is repealed and recreated to read:

NR 660.10 (107) "Small quantity generator" means a generator who generates any of the following amounts in a calendar month:

(a) Greater than 100 kilograms but less than 1,000 kilograms of non-acute hazardous waste.

(b) Less than or equal to 1 kilogram of acute hazardous waste listed in s. NR 661.0031 or 661.0033 (5).

(c) Less than or equal to 100 kilograms of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in s. NR 661.0031 or 661.0033 (5).

SECTION 24. NR 660.10 (108), (108m) (a) 1., 3., and (b), (122) and (126) (b) are amended to read:

NR 660.10 (108) "Solid waste" means a solid waste as defined in s. NR ~~661.02~~ 661.0002.

(108m) (a) 1. Contains one or more of the F001 to F005 solvents listed in s. NR ~~661.31~~ 661.0031 or the corresponding P− or U−listed solvents listed in s. NR ~~661.33~~ 661.0033.

3. Exhibits only the hazardous waste characteristic of ignitability found in s. NR ~~661.21~~ 661.0021 due to the presence of one or more solvents that are not listed in ch. NR 661.

(108m) (b) Solvent−contaminated wipes that contain listed hazardous waste other than solvents, or exhibit the characteristic of toxicity, corrosivity, or reactivity due to contaminants other than solvents, are not eligible for the exclusions at ss. NR ~~661.04~~661.0004 (1) (z) and ~~661.04~~ 661.0004 (2) (r).

(122) "Transfer facility" means any transportation-related facility, including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste or hazardous secondary material are held during the normal course of transportation.

(126) (b) Also included in this definition for the purpose of the s. NR ~~661.04~~ 661.0004 (5) and (6) exemptions are liner compatibility, corrosion and other material compatibility studies and toxicological and health effects studies. A treatability study is not a means to commercially treat or dispose of hazardous waste.

SECTION 25. NR 660.10 (138m) is created to read:

NR 660.10 (138m) "User of the electronic manifest system" means a hazardous waste generator, a hazardous waste transporter, an owner or operator of a hazardous waste treatment, storage, recycling, or disposal facility, or any other person that does any of the following:

(a) Required to use a manifest to comply with one of the following:

1. Any federal or state requirement to track the shipment, transportation, and receipt of hazardous waste or other waste material that is shipped from the site of generation to an off-site designated facility for treatment, storage, recycling, or disposal.

2. Any federal or state requirement to track the shipment, transportation, and receipt of rejected wastes or regulated container residues that are shipped from a designated facility to an alternative facility or returned to the generator.

(b) Elects to use the system to obtain, complete and transmit an electronic manifest format supplied by the EPA electronic manifest system.

(c) Elects to use the paper manifest form and submits to the system for data processing purposes a paper copy of the manifest, or data from the paper copy, in accordance with s. NR 664.0071 (1) (b) 5. or 665.0071 (1) (b) 5. These paper copies are submitted for data exchange purposes only and are not the official copies of record for legal purposes.

SECTION 26. NR 660.10 (139) is repealed and recreated to read:

NR 660.10 (139) "Very small quantity generator" means a generator that generates less than or equal to any of the following amounts in a calendar month:

(a) 100 kilograms of non-acute hazardous waste.

(b) 1 kilogram of acute hazardous waste listed in s. NR 661.0031 or 661.0033 (5).

(c) 100 kilograms of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in s. NR 661.0031 or 661.0033 (5).

SECTION 27. NR 660.10 (141) (b) is amended to read:

NR 660.10 (141) (b) Receives and treats or stores an influent wastewater that is a hazardous waste as defined in s. NR ~~661.03~~ 661.0003, or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in s. NR ~~661.03~~ 661.0003, or

treats or stores a wastewater treatment sludge that is a hazardous waste as defined in s. NR ~~661.03~~ 661.0003.

SECTION 28. NR 660.11 (2) (a), (f), (3) (b) 1., 8., 11., and (4) (a) are amended to read:

NR 660.11 (2) (a) ASTM D–93–79 or D–93–80, Standard Test Methods for Flash Point by Pensky−Martens Closed Cup Tester, incorporated by reference for s. NR ~~661.21~~ 661.0021.

(f) ASTM D–3278–78, Standard Test Methods for Flash Point for Liquids by Setaflash Closed Tester, incorporated by reference for s. NR ~~661.21~~ 661.0021 (1).

(3) (b) 1. Method 1311, September 1992, and Update I, incorporated by reference for ss. NR ~~661.24~~ 661.0024, 668.07, and 668.40.

8. Method 1110A, November 2004 and Update IIIB, incorporated by reference for s. NR ~~661.22~~ 661.0022.

11. Method 9040C, November 2004 and Update IIIB, incorporated by reference for s. NR ~~661.22~~ 661.0022.

(4) (a) Flammable and Combustible Liquids Code, NFPA 30, (1977 or 1981), incorporated by reference for subch. J of ch. NR 662, ss. NR 664.0198 and 665.0198, subch. H of ch. NR 666, and s. NR 667.0202 (2).

SECTION 29. NR 660.11 (5) (b) and (c) are created to read:

NR 660.11 (5) (b) American Petroleum Institute Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, incorporated by reference for s. NR 661.0191 (2)

(c) Steel Tank Institute, "Standards for Dual Wall Underground Storage Tanks," 2006, incorporated by reference for s. NR 661.0193 (4)

SECTION 30. NR 660.11 (7) (intro.) is amended to read:

NR 660.11 (7) (intro) The following materials are available for purchase from the ~~Organisation~~ Organization for Economic ~~Co-operation~~ Cooperation and Development, Environment Directorate, 2 rue ~~Andre~~ André Pascal, F-75775 Paris Cedex 16, France:

SECTION 31. NR 660.11 (7) (a) is repealed and recreated to read:

NR 660.11 (7) (a) Guidance Manual for the Control of Transboundary Movements of Recoverable Wastes, copyright 2009, Annex B: OECD Consolidated List of Wastes Subject to the Green Control Procedure and Annex C: OECD Consolidated List of Wastes Subject to the Amber Control Procedure, IBR approved for ss. NR 662.82 (1), 662.83 (2), (4), and (7), and NR 662.84 (2) and (4).

SECTION 32. NR 660.11 (8) (zb), (9), (10), (11) and (12) are created to read:

NR 660.11 (8) (zb) 40 CFR 52.741 Appendix B, Method 204 Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure, incorporated by reference for ss. NR 661.1084 (9), 661.1086 (5), 661.1089 (2), 661.1089 (4), 670.027 (1), and 670.315 (3).

(9) The 1987 Standard Industrial Classification (SIC) is available from the Occupational Safety and Health Administration, 200 Constitution Ave NW, Washington, DC 20210, (800) 321-6742, www.osha.gov, incorporated by reference for ss. NR 661.0003 (3), 661.0004 (1), 661.0032, 668.40, 670.013 (3), and 679.01 (8).

(10) The 2017 North American Industry Classification System (NAICS code) is available from the United States Census Bureau, 4600 Silver Hill Road, Washington, DC 20233, (800) 923-8282, www.census.gov, incorporated by reference for ss. NR 661.0004 (1), 662.203 (2), and 662.204 (2).

(11) 40 CFR parts 704, 710, and 711, Chemical Data Reporting Rule of the Toxic Substances Control Act, incorporated by reference for s. NR 661.0004 (1).

(12) References to citations of federal statutes and regulations shall also include any applicable Wisconsin requirements.

SECTION 33. NR 660.20 (1) is amended to read:

NR 660.20 (1) As provided under s. 227.12, Stats., and ch. NR 2, a person may petition the department to modify or revoke any provision in chs. NR 660 to 673. Section NR 660.21 sets forth additional requirements for petitions to add a testing or analytical method to ch. NR 661, 664 or 665. Section NR 660.22 references petitions to EPA to exclude a waste or waste−derived material at a particular facility from s. NR ~~661.03~~ 661.0003 or the lists of hazardous wastes in subch. D of ch. NR 661. Section NR 660.23 sets forth additional requirements for petitions

to amend ch. NR 673 to include additional hazardous wastes or categories of hazardous waste as universal waste.

SECTION 34. NR 660.30 (1) is amended to read:

NR 660.30 (1) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in s. NR ~~661.01~~ 661.0001 (3) (h)).

SECTION 35. NR 660.30 (4) and (5) are created to read:

NR 660.30 (4) Hazardous secondary material that are reclaimed in a continuous industrial process.

(5) Hazardous secondary material that are indistinguishable in all relevant aspects from a product or intermediate.

SECTION 36. NR 660.31 (3) (intro.), (a) and (b) are amended to read:

NR 660.31 (3) (intro.) The department may grant a request for a variance from classifying as a solid waste those hazardous secondary material that have been partially reclaimed, but ~~shall~~ must be reclaimed further before recovery is completed, if~~, after initial reclamation,~~ the ~~resulting material is~~ partial reclamation has produced a commodity-like ~~(even though it is not yet a commercial product, and has to be reclaimed further)~~ material. ~~This~~ A determination ~~will be based on all of the following factors~~ that a partially reclaimed material for which the variance is sought is commodity-like will be based on whether the hazardous secondary material is legitimately recycled as specified in s. NR 660.43 and on whether all of the following decision criteria are satisfied:

(a) The degree of ~~processing the~~ partial reclamation the material has undergone ~~and the degree of further processing that is required~~ is substantial as demonstrated by using a partial reclamation process other than the process that generated the hazardous waste.

(b) The partially-reclaimed material has sufficient economic value ~~of the material after it has been reclaimed~~ that it will be purchased for further reclamation.

SECTION 37. NR 660.31 (3) (c) and (d) are repealed and recreated to read:

NR 660.31 (3) (c) The partially reclaimed material is a viable substitute for a product or intermediate produced from virgin or raw materials that is used in subsequent production steps.

(d) There is a market for the partially reclaimed material as demonstrated by known customers who are further reclaiming the material, such as records of sales or contracts and evidence of subsequent use, such as bills of lading.

SECTION 38. NR 660.31 (3) (e) is amended to read:

NR 660.31 (3) (e) The ~~extent to which the reclaimed~~partially ~~-~~reclaimed material is handled to minimize loss.

SECTION 39. NR 660.33 (1) is amended to read:

NR 660.33 (1) The applicant shall apply to the department for the variance. The application shall address the relevant criteria contained in s. NR 660.31, 660.32, or 660.34, as applicable.

SECTION 40. NR 660.33 (3), (4) and (5) are created to read:

NR 660.33 (3) In the event of a change in circumstances that affects how a hazardous secondary material meets the relevant criteria contained in s. NR 660.31, 660.32, or 660.34 upon which a variance or non-waste determination has been based, the applicant shall send a description of the change in circumstances to the department. The department may issue a determination that the hazardous secondary material continues to meet the relevant criteria of the variance or non-waste determination or may require the facility to re-apply for the variance or non-waste determination.

(4) A variance or non-waste determination shall be effective for a fixed term not to exceed 10 years. No later than 6 months prior to the end of that term, a facility shall re-apply for a variance or non-waste determination. If a facility re-applies for a variance or non-waste determination within 6 months prior to the end of the term, the facility may continue to operate under an expired variance or non-waste determination until receiving a decision on their re-application from the department.

(5) A facility receiving a variance or non-waste determination shall provide notification as required under s. NR 660.42.

SECTION 41. NR 660.34 is created to read:

NR 660.34 **Standards and criteria for non-waste determinations.** (1) An applicant may apply to the department for a formal determination that a hazardous secondary material is not discarded and therefore not a solid waste. The determinations will be based on the criteria contained in sub. (2) or (3), as applicable. If an application is denied, the hazardous secondary material may still be eligible for a solid waste variance or exclusion through one of the solid waste variances under s. NR 660.31.

(2) The department may grant a non-waste determination for hazardous secondary material that is reclaimed in a continuous industrial process if the applicant demonstrates that the hazardous secondary material is a part of the production process and is not discarded. The determination shall be based on whether the hazardous secondary material is legitimately recycled as specified in s. NR 660.43 and on all of the following criteria:

(a) The management of the hazardous secondary material is part of the continuous primary production process and is not waste treatment.

(b) The capacity of the production process will use the hazardous secondary material in a reasonable time frame and will ensure that the hazardous secondary material will not be abandoned. Examples of factors the department will use to determine capacity of the production process to use the hazardous secondary material include past production practices, market factors, the nature of the hazardous secondary material, and any contractual arrangements.

(c) The hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, water, or land at significantly higher levels from either a statistical or health and environmental risk perspective than would otherwise be released by the production process.

(d) Other relevant factors that demonstrate that the hazardous secondary material is not discarded, including why the hazardous secondary material cannot meet, or should not have to meet, the conditions of an exclusion under s. NR 661.0002 or 661.0004.

(3) The department may grant a non-waste determination for hazardous secondary material that is indistinguishable in all relevant aspects from a product or intermediate if the applicant demonstrates that the hazardous secondary material is comparable to a product or intermediate and is not discarded. The determination will be based on whether the hazardous

secondary material is legitimately recycled as specified in s. NR 660.43 and on all of the following criteria:

(a) Market participants treat the hazardous secondary material as a product or intermediate rather than a waste. Examples of factors that may be used to determine that the hazardous secondary material is a product or intermediate rather than a waste include the current positive value of the hazardous secondary material, stability of demand, or any contractual arrangements.

(b) The chemical and physical identity of the hazardous secondary material is comparable to commercial products or intermediates.

(c) The capacity of the market would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned. Examples of factors used to determine that a hazardous secondary material will not be abandoned include past practices, market factors, the nature of the hazardous secondary material, and any contractual arrangements.

(d) The hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, water or land at significantly higher levels from either a statistical or health and environmental risk perspective than would otherwise be released by the production process.

(e) Other relevant factors that demonstrate that the hazardous secondary material is not discarded, including why the hazardous secondary material cannot meet, or should not have to meet, the conditions of an exclusion under s. NR 661.0002 or 661.0004.

SECTION 42. NR 660.40 (1) is amended to read:

NR 660.40 (1) The department may decide on a case−by−case basis that persons accumulating or storing the recyclable materials described in s. NR ~~661.06~~ 661.0006 (1) (b) 4. should be regulated under s. NR ~~661.06~~ 661.0006 (2) and (3). The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the department will consider all of the following factors:

SECTION 43. NR 660.41 (1) is amended to read:

NR 660.41 (1) If a generator is accumulating the waste, the department shall issue a special order setting forth the factual basis for the decision and stating that the person shall comply with subch. A of ch. NR 662, subch. C of ch. NR 662, subch. D of ch. NR 662 and subch. ~~E~~ H of ch. NR 662. The special order shall become final within 30 days, unless the person served requests a public hearing to challenge the decision. Upon receiving such a request, the department shall hold a public hearing. The department shall provide notice of the hearing to the public and allow public participation at the hearing. The department shall issue a final order after the hearing stating whether or not compliance with ch. NR 662 is required. The order becomes effective 30 days after service of the decision unless the department specifies a later date.

SECTION 44. NR 660.42 and 660.43 are created to read:

NR 660.42 **Notification requirement for hazardous secondary material.** (1) A facility managing hazardous secondary material under ss. NR 660.30, 661.0004 (1) (w), 661.0004 (1) (x), 661.0004 (1) (y), or 661.0004 (1) (za) shall send a notification to the department prior to operating under the regulatory provision and by March 1 of each even numbered year thereafter using EPA Form 8700–12. The notification shall include all of the following information:

(a) The name, address, and EPA ID number, if applicable, of the facility.

(b) The name and telephone number of a contact person.

(c) The NAICS code of the facility.

(d) The regulation under which the hazardous secondary material will be managed.

(e) For reclaimers and intermediate facilities managing hazardous secondary material in accordance with s. NR 661.0004 (1) (x) or (y), whether the reclaimer or intermediate facility has financial assurance. Financial assurance is not applicable for persons managing hazardous secondary material generated and reclaimed under the control of the generator.

(f) The date the facility began or expects to begin managing the hazardous secondary material in accordance with the regulation.

(g) A list of hazardous secondary material that will be managed according to the regulation, reported as the EPA hazardous waste numbers that would apply if the hazardous secondary material were managed as hazardous wastes.

(h) For each hazardous secondary material, whether the hazardous secondary material, or any portion thereof, will be managed in a land-based unit.

(i) The quantity of each hazardous secondary material to be managed annually.

(j) The certification, included in EPA Form 8700-12, signed and dated by an authorized representative of the facility.

(2) If a facility managing hazardous secondary material has submitted a notification, but then subsequently stops managing hazardous secondary material in accordance with the regulations in sub. (1), the facility shall notify the department within 30 days using EPA Form 8700-12. For purposes of this section, a facility has stopped managing hazardous secondary material if the facility no longer generates, manages or reclaims hazardous secondary material under the regulations in sub. (1) and does not expect to manage any amount of hazardous secondary material for at least one year.

NR 660.43 **Legitimate recycling of hazardous secondary material.** (1) FACTORS THAT ARE REQUIRED. Recycling of hazardous secondary material for the purpose of the exclusions or exemptions from the hazardous waste rules shall be legitimate. Hazardous secondary material that is not legitimately recycled is discarded material and is a solid waste. In determining if recycling is legitimate, a person shall address all of the requirements under this subsection and consider the requirements in sub. (2). Legitimate recycling under this subsection includes all of the following:

(a) *Factor 1.* Legitimate recycling shall involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product or intermediate of the recycling process. The hazardous secondary material provides a useful contribution if it meets any of the following conditions:

1. It contributes valuable ingredients to a product or intermediate.
2. It replaces a catalyst or carrier in the recycling process.
3. It is the source of a valuable constituent recovered in the recycling process.
4. It is recovered or regenerated by the recycling process.
5. It is used as an effective substitute for a commercial product.

(b) *Factor 2.* The recycling process shall produce a valuable product or intermediate. The product or intermediate is valuable if it is one of the following:

1. Sold to a third party.

2. Used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process.

(c) *Factor 3.* The generator and the recycler shall manage the hazardous secondary material as a valuable commodity when it is under their control. Where there is an analogous raw material, the hazardous secondary material shall be managed, at a minimum, in a manner consistent with the management of the raw material or in an equally protective manner. Where there is no analogous raw material, the hazardous secondary material shall be contained. Hazardous secondary material that are released into the environment and are not recovered immediately are discarded.

(2) FACTOR THAT SHALL BE CONSIDERED. In making a determination that a hazardous secondary material is legitimately recycled, a person shall evaluate all factors in sub. (a) and consider legitimacy as a whole. If, after careful evaluation of these considerations, the factor in this subsection is not met, then this fact may be an indication that the material is not legitimately recycled. However, the factor in this subsection does not have to be met for the recycling to be considered legitimate. In evaluating the extent to which this factor is met and in determining whether a process that does not meet this factor is still legitimate, a person can consider exposure from toxics in the product, the bioavailability of the toxics in the product and other relevant considerations. In making a determination as to the overall legitimacy of a specific recycling activity, all of the following factors shall be considered:

(a) *Factor 4.* Whether any of the following applies to the product of the recycling process does not:

1. Contains significant concentrations of any hazardous constituents found in ch. NR 661, Appendix VIII that are not found in analogous products.

2. Contains concentrations of hazardous constituents found in ch. NR 661, Appendix VIII at levels that are significantly elevated from those found in analogous products.

3. Exhibits a hazardous characteristic, as defined in subch. C of ch. NR 661, that analogous products do not exhibit.

SECTION 45. NR 661 and Appendix I, VII and VIII are repealed and recreated to read:

Subchapter A — General

NR 661.0001 Purpose, scope and definitions. (1) This chapter identifies solid wastes subject to regulation as hazardous wastes under chs. NR 662 to 665, 668, and 670, and subject to the notification requirements under s. NR 660.07. In this chapter:

(a) Subchapter A defines the terms "solid waste" and "hazardous waste," identifies wastes that are excluded from regulation under chs. NR 662 to 666, 668 and 670, and establishes special management requirements for hazardous waste produced by very small quantity generators and hazardous waste that is recycled.

(b) Subchapter B sets forth the criteria used by the department to identify characteristics of hazardous waste and to list particular hazardous wastes.

(c) Subchapter C identifies characteristics of hazardous waste.

(d) Subchapter D lists particular hazardous wastes.

(2) (a) The definition of solid waste contained in this chapter applies only to wastes that also are hazardous for purposes of chs. NR 660 to 673. For example, it does not apply to materials such as non-hazardous scrap, paper, textiles, or rubber, that are not otherwise hazardous wastes and that are recycled.

(b) This chapter identifies only some of the materials that are solid wastes and hazardous wastes for purposes of ss. 291.15, 291.85, 291.91, and 291.93, Stats., and 42 USC 6927, 6934, and 6973 (a). A material that is not defined as a solid waste in this chapter, or is not a hazardous waste identified or listed in this chapter, is still a solid waste and a hazardous waste for the purposes of those provisions if any of the following are met:

1. In the case of ss. 291.15, 291.91, and 291.93, Stats., or 42 USC 6927 and 6934, the department or EPA has reason to believe that the material may be a solid waste within the meaning of s. 289.01 (33), Stats., and section 1004(27) of RCRA, or a hazardous waste within the meaning of s. 291.01 (7), Stats., and section 1004 (5) of RCRA.

2. In the case of s. 291.85, Stats., and 42 USC 6973(a), the statutory elements are established.

(3) For the purposes of ss. NR 661.0002 and 661.0006:

(a) "Spent material" means any material that has been used and, as a result of contamination, can no longer serve the purpose for which it was produced without processing.

(b) "Sludge" has the meaning used in s. NR 660.0010 (105).

(c) "By-product" means a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples of of by-products are process residues such as slags or distillation column bottoms. "By-product" does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(d) "Reclaimed" means a material that has been processed to recover a usable product or that has been regenerated. Examples of "reclaimed material" are recovery of lead values from spent batteries, regeneration of spent solvents, and, for the purposes of s. NR 661.0004 (1) (w) and (x), smelting, melting, and refining furnaces solely engaged in metals reclamation if the metal recovery from the hazardous secondary material meets the requirements specified for metals recovery from hazardous waste found in s. NR 666.100 (4) (a) to (c), and if the residuals meet the requirements specified in s. NR 666.112.

(e) "Used or reused" means a material that is one of the following:

1. Employed as an ingredient, including use as an intermediate, in an industrial process to make a product, such as distillation bottoms from one process used as feedstock in another process. However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products, as when metals are recovered from metal-containing secondary material.

2. Employed in a particular function or application as an effective substitute for a commercial product, such as spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment.

(f) "Scrap metal" means bits and pieces of metal parts, such as bars, turnings, rods, sheets, wire, or metal pieces that may be combined together with bolts or soldering, such as radiators, scrap automobiles, or railroad box cars, which when worn or superfluous, can be recycled.

(g) "Recycled" means a material that is used, reused, or reclaimed.

(h) "Accumulated speculatively" means a material that is accumulated before being recycled.

1. A material is not accumulated speculatively if the person accumulating it can show all of the following:

a. The material is potentially recyclable and has a feasible means of being recycled.

b. During the calendar year commencing on January 1, the amount of material that is recycled, or transferred to a different site for recycling equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period.

2. Materials that are accumulated speculatively shall be placed in a storage unit with a label indicating the first date that the material began to be accumulated. If placing a label on the storage unit is not practicable, the accumulation period shall be documented through an inventory log or other appropriate method.

3. In calculating the percentage of turnover for materials that are accumulated speculatively, the 75 percent requirement shall be applied to each material of the same type, such as slags from a single smelting process, that is recycled in the same way. Materials accumulating in units that are exempt from regulation under s. NR 661.0004 (3) shall not be included in making the calculation.

4. Materials that are accumulated speculatively that are already defined as solid wastes shall not be included in making the calculation.

5. Materials that are accumulated speculatively are no longer in this category once they are removed from accumulation for recycling.

(i) "Excluded scrap metal" means processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

(j) "Processed scrap metal" means scrap metal that has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes scrap metal that has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type, and, fines, drosses and related materials that have been agglomerated.

Note: shredded circuit boards being sent for recycling are not considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled under s. NR 661.0004 (1) (n).

(k) "Home scrap metal" means scrap metal generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

(L) "Prompt scrap metal" means scrap metal generated by the metal working and fabrication industries and includes such scrap metal as turnings, cuttings, punchings, and borings. **Note:** Prompt scrap is also known as industrial or new scrap metal.

NR 661.0002 Definition of solid waste. (1) (a) "Solid waste" means any discarded material that is not excluded under s. NR 661.0004 (1) or that is not excluded by a variance granted under ss. NR 660.30 and 660.31 or that is not excluded by a non-waste determination under ss. NR 660.30 and 660.34.

(b) "Discarded material" means any material that is one of the following:

1. Abandoned, as specified in sub. (2).

2. Recycled, as specified in sub. (3).

3. Considered inherently waste-like, as specified in sub. (4).

4. A military munition identified as a solid waste as specified in s. NR 666.202.

(2) Materials are solid waste if they are abandoned by being any of the following:

(a) Disposed of.

(b) Burned or incinerated.

(c) Accumulated, stored, or treated, but not recycled, before or in lieu of being abandoned by being disposed of, burned or incinerated.

(d) Sham recycled, as specified in sub. (7).

(3) Materials are solid wastes if they are recycled, or accumulated, stored, or treated before recycling as specified in (3) (a) through (d) of this subsection: (MIKE review)

(a) They are used in a manner constituting disposal.

1. Materials noted with a "*" in Column 1 of Table 1 are solid wastes when they are any of the following:

a. Applied to or placed on the land in a manner that constitutes disposal.

b. Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land, in which case the product itself remains a solid waste.

2. Commercial chemical products listed in s. NR 661.0033 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(b) They are burned for energy recovery.

1. Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are any of the following:

a. Burned to recover energy;

b. Used to produce a fuel or are otherwise contained in fuels, in which cases the fuel itself remains a solid waste.

2. Commercial chemical products listed in s. NR 661.0033 are not solid wastes if they are themselves fuels.

(c) They are reclaimed. Materials noted with a "-" in column 3 of Table 1 are not solid wastes when reclaimed. Materials noted with an "*" in column 3 of Table 1 are solid wastes when reclaimed unless they meet the requirements specified in ss. NR 661.0004 (1) (q), (w), (x), or (za).

(d) They are accumulated speculatively. Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

TABLE 1

	Use constituting disposal s. NR 661.0002 (3) (a)	Energy recovery or fuel s. NR 661.0002 (3) (b)	Reclamation s. NR 661.0002 (3) (c), except as provided in ss. NR 661.0004 (1) (q), (w), (x), or (za)	Speculative accumulation s. NR 661.0002 (3) (d)
	1	2	3	4
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed s. NR 661.0031 or 661.0032)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	-	(*)
By-products (listed in s. NR 661.0031 or 661.0032)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	-	(*)
Commercial chemical products listed in s. NR 661.0033	(*)	(*)	-	-
Scrap metal that is not excluded under s. NR 661.0004 (1) (m)	(*)	(*)	(*)	(*)

Note: The terms "spent materials," "sludges," "by-products," "scrap metal" and "processed scrap metal" are defined in s. NR 661.0001.

(4) All of the following inherently waste-like materials are solid wastes when they are recycled in any manner:

(a) Hazardous waste numbers F020, F021, unless used as an ingredient to make a product at the site of generation, F022, F023, F026, and F028.

(b) Secondary material fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in subchs. C or D, except for brominated material that meets all of the following criteria:

1. The material contains a bromine concentration of at least 45%.

2. The material contains less than a total of 1% of toxic organic compounds listed in Appendix VIII.

3. The material is processed continually on-site in the halogen acid furnace via direct conveyance by hard piping.

(c) The department shall use all of the following criteria to add wastes to the inherently waste-like materials list:

1. Any of the following:

a. The materials are ordinarily disposed of, burned, or incinerated.

b. The materials contain toxic constituents listed in Appendix VIII and these constituents are not ordinarily found in raw materials or products for which the materials substitute, or are found in raw materials or products in smaller concentrations, and are not used or reused during the recycling process.

2. The material may pose a substantial hazard to human health and the environment when recycled.

(5) (a) A material is not a solid waste when it can be shown to be recycled by being one of the following:

1. Used or reused as an ingredient in an industrial process to make a product, provided the material is not being reclaimed prior to the use or reuse.

2. Used or reused as an effective substitute for commercial products, provided the material is not reclaimed prior to the use or reuse.

3. Returned to the original process from which it was generated, without first being reclaimed or land disposed. The material shall be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the material shall be managed such that there is no placement on the land. In cases where the material is generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at s. NR 661.0004 (1) (q) apply rather than this subsection.

(b) All of the following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process as described in par. (a) 1. to 3.:

1. Materials used in a manner constituting disposal or used to produce products that are applied to the land.

2. Materials burned for energy recovery, used to produce a fuel, or contained in fuels.

3. Materials accumulated speculatively.

4. Materials listed in sub. (4) (a) and (b).

(6) A respondent in an action to enforce ch. 291, Stats., and chs. NR 660 to 667 who raises a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, shall demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, the respondent shall provide appropriate documentation, such as contracts showing that a second person uses the material as an ingredient in a production process, to demonstrate that the material is not a waste, or is exempt from regulation. In addition, an owner or operator of facilities claiming that they actually are recycling materials shall show that they have the necessary equipment to do so.

(7) A hazardous secondary material found to be sham recycled is considered discarded and a solid waste. "Sham recycling" means recycling that is not legitimate recycling as defined in s. NR 660.43.

NR 661.0003 Definition of hazardous waste. (1) A solid waste, as defined in s. NR 661.0002, is a hazardous waste if all of the following apply:

(a) It is not excluded from regulation as a hazardous waste under s. NR 661.0004 (2).

(b) It meets any of the following criteria:

1. It exhibits any of the characteristics of hazardous waste identified in subch. C. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under s. NR 661.0004 (2) (g) and any other solid waste exhibiting a characteristic of hazardous waste under subch. C is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the toxicity characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration

for any contaminant listed in table 2 of s. NR 661.0024 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.

2. It is listed in subch. D and has not been excluded from the lists in subch. D under ss. NR 660.20 and 660.22.

4. It is a mixture of solid waste and one or more hazardous wastes listed in subch. D and has not been excluded from this paragraph under ss. NR 660.20 and 660.22, or sub. (7) or (8); however, the following mixtures of solid wastes and hazardous wastes listed in subch. D are not hazardous wastes (except by application of subd. 1. or 2.) if the generator can demonstrate that the mixture consists of wastewater discharge subject to regulation under either s. 283.21 (2), 283.31 or 283.33, Stats. (including wastewater at facilities that have eliminated the discharge of wastewater) and one of the following:

a. One or more of the following spent solvents listed in s. NR 661.0031: benzene, carbon tetrachloride, tetrachloroethylene, trichloroethylene or the scrubber waters derived from the combustion of these spent solvents, provided, that the maximum total weekly usage of these solvents, other than the amounts that can be demonstrated not to be discharged to wastewater, divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed one part per million, or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system, at facilities subject to regulation under the Clean Air Act, as amended, at 40 CFR parts 60, 61, or 63, or subject to ch. NR 440, 446 subch. III and IV, or 447 to 469, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions, does not exceed one part per million on an average weekly basis. Any facility that uses benzene as a solvent and claims this exemption shall use an aerated biological wastewater treatment system and shall use only lined surface impoundments or tanks prior to secondary clarification in the wastewater treatment system. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the department. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location, headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation

that the sampling and analysis plan has been received by the department. The department may reject the sampling and analysis plan if the department finds that the sampling and analysis plan fails to include the above information, or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the department rejects the sampling and analysis plan or if the department finds that the facility is not following the sampling and analysis plan, the department shall notify the facility to cease the use of the direct monitoring option until the bases for rejection are corrected.

b. One or more of the following spent solvents listed in s. NR 661.0031: methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, 2-ethoxyethanol, or the scrubber waters derived from the combustion of these spent solvents, provided that the maximum total weekly usage of these solvents, other than the amounts that can be demonstrated not to be discharged to wastewater, divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million, or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system, at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or subject to ch. NR 440, 446 subch. III and IV, or NR 447 to 469 or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions, does not exceed 25 parts per million on an average weekly basis. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the department. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location, headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and analysis plan has been received by the department. The department may reject the sampling and analysis plan if the department finds that the sampling and analysis plan fails to include the above information, or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the department rejects the sampling and analysis plan or if the department finds that the facility is not following the sampling and analysis plan, the department

shall notify the facility to cease the use of the direct monitoring option until the bases for rejection are corrected.

c. One of the following wastes listed in s. NR 661.0032, if the wastes are discharged to the refinery oil recovery sewer before primary oil, water, or solids separation: heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA hazardous waste number K050), crude oil storage tank sediment from petroleum refining operations (EPA hazardous waste number K169), clarified slurry oil tank sediment or in-line filter/separation solids from petroleum refining operations (EPA hazardous waste number K170), spent hydrotreating catalyst (EPA hazardous waste number K171), and spent hydrorefining catalyst (EPA hazardous waste number K172).

d. A discarded hazardous waste, commercial chemical product, or chemical intermediate listed in ss. NR 661.0031 to 661.0033, arising from de minimis losses of these materials. For purposes of this subdivision paragraph, de minimis losses are inadvertent releases to a wastewater treatment system, including those from normal material handling operations, such as spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials; minor leaks of process equipment, storage tanks or containers; leaks from well maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing. Any manufacturing facility that claims an exemption for de minimis quantities of wastes listed in ss. NR 661.0031 to 661.0032, or any nonmanufacturing facility that claims an exemption for de minimis quantities of wastes listed in subch. D shall either have eliminated the discharge of wastewaters or have included in its WPDES permit application or submission to its pretreatment control authority the constituents for which each waste was listed in ch. NR 661 Appendix VII and the constituents in the table “Treatment Standards for Hazardous Wastes” in s. NR 668.40 for which each waste has a treatment standard. A facility is eligible to claim the exemption once the department has been notified of possible de minimis releases via the WPDES permit application or the pretreatment control authority submission. A copy of the WPDES permit application or the submission to the pretreatment control authority shall be placed in the facility's on-site files.

e. Wastewater resulting from laboratory operations containing toxic (T) wastes listed in subch. D if the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system or provided the wastes combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation.

f. One or more of the following wastes listed in s. NR 661.0032; wastewaters from the production of carbamates and carbamoyl oximes (EPA hazardous waste number K157) provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and trimethylamine, (including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or recovered) divided by the average weekly flow of process wastewater prior to any dilution into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system, at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or subject to ch. NR 440, 446 subch. III and IV, or NR 447 to 469, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions, does not exceed 5 parts per million on an average weekly basis. A facility that chooses to measure concentration levels shall file a copy of its sampling and analysis plan with the department as the context requires. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and analysis plan has been received by the department. The department may reject the sampling and analysis plan if the department finds that the sampling and analysis plan fails to include the above information, or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the department rejects the sampling and analysis plan or if the department finds that the facility is not following the sampling and analysis plan, the department

shall notify the facility to cease the use of the direct monitoring option until the bases for rejection are corrected.

g. Wastewaters derived from the treatment of one or more of the following wastes listed in s. NR 661.0032 organic waste, including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates, from the production of carbamates and carbamoyl oximes, EPA hazardous waste numbers K156, provided that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 milligrams per liter or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or subject to ch. NR 440, 446 subch. III and IV, or NR 447 to 469, or, at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions does not exceed 5 milligrams per liter on an average weekly basis. A facility that chooses to measure concentration levels shall file copy of its sampling and analysis plan with the department. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location, headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and analysis plan has been received by the department. The department may reject the sampling and analysis plan if the department finds that the sampling and analysis plan fails to include the above information or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the department rejects the sampling and analysis plan or if the department finds that the facility is not following the sampling and analysis plan, the department shall notify the facility to cease the use of the direct monitoring option until the bases for rejection are corrected.

5. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subch. D. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste, for example to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in ch. NR 661, Appendix VIII.

a. The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils or fluids. The presumption does apply to metalworking oils or fluids if the oils or fluids are recycled in any other manner or disposed.

b. The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons, or CFCs, removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(2) A solid waste not excluded from regulation under sub. (1) (a) becomes a hazardous waste when any of the following events occur:

(a) In the case of a waste listed in subch. D, when the waste first meets the listing description set forth in subch. D.

(b) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in subch. D is first added to the solid waste.

(c) In the case of any other waste, including a waste mixture, when the waste exhibits any of the characteristics identified in subch. C.

(3) Unless and until it meets the criteria of sub. (4):

(a) A hazardous waste will remain a hazardous waste.

(b) 1. Except as otherwise provided in subd. 2. or sub. (7) or (8), any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash emission control dust, or leachate, but not including precipitation run-off, is a hazardous waste. However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.

2. Unless they exhibit one or more of the characteristics of hazardous waste, none of the following solid wastes are hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste:

a. Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry, SIC Codes 331 and 332, as incorporated by reference in s. NR 660.11.

b. Waste from burning any of the materials exempted from regulation by s. NR 661.0006 (1) (c) 3. and 4.

c. 1) Nonwastewater residues, such as slag, resulting from high temperature metals recovery or HTMR processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces as defined in s. NR 660.10 (60) (f), (g), and (m), that are disposed in approved solid waste disposal facilities, if these residues meet the generic exclusion levels identified in Table 2 for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements shall be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan. At a minimum, composite samples of residues shall be collected and analyzed quarterly and when the process or operation generating the waste changes. A person claiming this exclusion in an enforcement action has the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

TABLE 2

Constituent	**Maximum for any single composite sample—TCLP (mg/l)**
Generic exclusion levels for K061 and K062 nonwastewater HTMR residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0

Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70
Generic exclusion levels for F006 nonwastewater HTMR residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

2) A one-time notification and certification shall be placed in the facility's files and sent to the department for K061, K062 or F006 HTMR residues that meet the generic exclusion levels for all constituents, and do not exhibit any characteristics of hazardous waste, that are sent to approved solid waste disposal facilities. The notification and certification that is placed in the generator's or treater's files shall be updated if the process or operation generating the waste changes or if the approved solid waste disposal facility receiving the waste changes. However,

the generator or treater need only notify the department on an annual basis if such changes occur. Such notification and certification shall be sent to the department by the end of the calendar year. The notification shall include the following information: The name and address of the approved solid waste disposal facility receiving the waste shipments; the EPA hazardous waste number and treatability group at the initial point of generation; and the treatment standards applicable to the waste at the initial point of generation. The certification shall be signed by an authorized representative and shall state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

d. Biological treatment sludge from the treatment of one of the following wastes listed in s. NR 661.0032: organic waste, including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates, from the production of carbamates and carbamoyl oximes, EPA Hazardous Waste No. K156; and wastewaters from the production of carbamates and carbamoyl oximes, EPA Hazardous Waste No. K157.

e. Catalyst inert support media separated from one of the following wastes listed in s. NR 661.0032: spent hydrotreating catalyst, EPA Hazardous Waste No. K171; and spent hydrorefining catalyst, EPA Hazardous Waste No. K172.

(4) Any solid waste described in sub. (3) is not a hazardous waste if it meets the following criteria:

(a) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in subch. C. However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements under ch. NR 668, even if they no longer exhibit a characteristic at the point of land disposal.

(b) In the case of a waste that is a listed waste under subch. D, contains a waste listed under subch. D, or is derived from a waste listed in subch. D, it also has been excluded from sub. (3) under ss. NR 660.20 and 660.22.

(6) Notwithstanding subs. (1) to (4) and provided the debris as defined in ch. NR 668 does not exhibit a characteristic identified in subch. C, none of the following materials is subject to regulation under ch. NR 660, 661 to 666, 668, or 670:

(a) Hazardous debris as defined in ch. NR 668 that has been treated using one of the required extraction or destruction technologies specified in Table 1 of s. NR 668.45. Persons claiming this exclusion in an enforcement action have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

(b) Debris as defined in ch. NR 668, that the department, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

(7) (a) A hazardous waste that is listed in subch. D solely because it exhibits one or more characteristics of ignitability as defined under s. NR 661.0021, corrosivity as defined under s. NR 661.0022, or reactivity as defined under s. NR 661.0023 is not a hazardous waste if the waste no longer exhibits any characteristic of hazardous waste identified in subch. C.

(b) The exclusion described in par. (a) also pertains to all of the following:

1. Any mixture of a solid waste and a hazardous waste listed in subch. D solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under sub. (1) (b) 4.

2. Any solid waste generated from treating, storing, or disposing of a hazardous waste listed in subch. D solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under sub. (3) (b) 1.

(c) A waste excluded under this subsection is subject to ch. NR 668, as applicable, even if it no longer exhibits a characteristic at the point of land disposal.

(d) Any mixture of a solid waste excluded from regulation under s. NR 661.0004 (2) (g) and a hazardous waste listed in subch. D solely because it exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity as regulated under sub. (1) (b) 4. is not a hazardous waste if the mixture no longer exhibits any characteristic of hazardous waste identified in subch. C for which the hazardous waste listed in subch. D was listed.

(8) (a) Hazardous waste containing radioactive waste is no longer a hazardous waste when it meets the eligibility criteria and conditions of subch. N of ch. NR 666, eligible radioactive mixed waste.

(b) The exemption described in par. (a) also pertains to all of the following:

1. Any mixture of a solid waste and an eligible radioactive mixed waste.

2. Any solid waste generated from treating, storing, or disposing of an eligible radioactive mixed waste.

(c) Waste exempted under this subsection shall meet the eligibility criteria and specified conditions in ss. NR 666.225 and 666.230 for storage and treatment, and in ss. NR 666.310 and 666.315 for transportation and disposal. Waste that fails to satisfy these eligibility criteria and conditions is regulated as hazardous waste.

NR 661.0004 Exclusions. (1) MATERIALS THAT ARE NOT SOLID WASTES. All of the following materials are not solid wastes for the purpose of this chapter:

(a) All of the following:

1. Domestic sewage. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

2. Any mixture of domestic sewage, as defined in subd.1., and other wastes that passes through a sewer system to a publicly owned treatment works for treatment, except as prohibited by s. NR 666.505 and Clean Water Act requirements specified in 40 CFR 403.5 (b).

(b) Industrial wastewater discharges that are point source discharges subject to regulation under ss. 283.31 and 283.33, Stats.

Note: This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.

(c) Irrigation return flows.

(d) Source material, special nuclear material, or by-product material as defined by 42 USC 2011 to 2114.

Note: Title 42 USC 2011 to 2114 is also known as the atomic energy act of 1954, as amended.

(e) Materials subjected to in-situ mining techniques that are not removed from the ground as part of the extraction process.

(f) Pulping liquors that are reclaimed in a pulping liquor recovery furnace and reused in the pulping process, unless they are accumulated speculatively as defined in s. NR 661.0001 (3).

(g) Spent sulfuric acid used to produce virgin sulfuric acid provided it is not accumulated speculatively as defined in s. NR 661.0001 (3).

(h) Secondary material that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided all of the following conditions are met:

1. Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance.

2. Reclamation does not involve controlled flame combustion, such as occurs in boilers, industrial furnaces, or incinerators.

3. The secondary material is never accumulated in the tanks for more than 12 months without being reclaimed.

4. The reclaimed material is not used to produce a fuel or used to produce products that are used in a manner constituting disposal.

(i) All of the following:

1. Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose.

2. Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.

3. Prior to reuse, the wood preserving wastewaters and spent wood preserving solutions described in subds. 1 and 2, so long as they meet all of the following conditions:

a. The wood preserving wastewaters and spent wood preserving solutions are reused on-site at waterborne plants in the production process for their original intended purpose.

b. Prior to reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or groundwater or both.

c. Any unit used to manage wastewaters or spent wood preserving solutions prior to reuse can be visually or otherwise determined to prevent such releases.

d. Any drip pad used to manage the wastewaters or spent wood preserving solutions prior to reuse complies with the standards in subch. W of ch. NR 665, regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste.

e. Prior to operating pursuant to this exclusion, the plant owner or operator prepares a one-time notification stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following

language: “I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation.” The plant shall maintain a copy of the notification in its on-site records until closure of the facility. The exclusion applies so long as the plant meets all of the conditions. If the plant goes out of compliance with any condition, it may apply to the department for reinstatement. The department may reinstate the exclusion upon finding that the plant has returned to compliance with all conditions and that the violations are not likely to recur.

(j) EPA hazardous waste numbers K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-products processes that are hazardous only because they exhibit the Toxicity Characteristic, TC, specified in section s. NR 661.0024 when, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point the wastes are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

(k) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided the residue is shipped in drums, if shipped, and not land disposed before recovery.

(L) All of the following:

1. Oil-bearing hazardous secondary material that are generated at a petroleum refinery, SIC code 2911, and are inserted into the petroleum refining process, SIC code 2911, including distillation, catalytic cracking, fractionation, or thermal cracking units, unless the material is placed on the land, or speculatively accumulated before being recycled. Materials inserted into thermal cracking units are excluded under this subdivision, provided that the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary material may be inserted into the same petroleum refinery where they are generated, or sent directly to another petroleum refinery and still be excluded under this provision. Except as provided in subd. 2., oil-bearing hazardous secondary material generated elsewhere in the petroleum industry are not excluded under this section. Residuals generated from processing or recycling materials excluded under this subdivision, where such materials as generated would have otherwise met a

listing under subch. D, are designated as F037 listed wastes when disposed or intended for disposal.

2. Recovered oil that is recycled in the same manner and with the same conditions as described in subd. 1. Recovered oil is oil that has been reclaimed from secondary material, including wastewater, generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident to those practices, SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172. Recovered oil does not include oil-bearing hazardous wastes listed in subch. D; however, oil recovered from such wastes may be considered recovered oil. "Recovered oil" does not include used oil as defined in s. NR 679.01.

(m) Excluded scrap metal, which is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal being recycled.

(n) Shredded circuit boards being recycled provided they are all of the following:

1. Stored in containers sufficient to prevent a release to the environment prior to recovery.

2. Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

(o) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with s. NR 464.06 (5). The exemption applies only to combustion at the mill generating the condensates.

(q) Spent materials as defined in s. NR 661.0001 (3) (a), other than hazardous wastes listed in subch. D, generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing or by beneficiation, if all of the following are met:

1. The spent material is legitimately recycled to recover minerals, acids, cyanide, water, or other values.

2. The spent material is not accumulated speculatively.

3. Except as provided in subd. 4, the spent material is stored in tanks, containers, or buildings meeting the following minimum integrity standards: a building shall be an engineered structure with a floor, walls, and a roof all of which are made of non-earthen materials providing structural support, except smelter buildings may have partially earthen floors provided the

secondary material is stored on the non-earthen portion, and have a roof suitable for diverting rainwater away from the foundation; a tank shall be free standing, not be a surface impoundment as defined in s. NR 660.10 (115), and shall be manufactured of a material suitable for containment of its contents; a container shall be free standing and be manufactured of a material suitable for containment of its contents. If tanks or containers contain any particulate that may be subject to wind dispersal, the owner or operator shall operate these units in a manner that controls fugitive dust. Tanks, containers, and buildings shall be designed, constructed and operated to prevent significant releases to the environment of these materials.

4. The department may make a site-specific determination, after public review and comment, that only solid mineral processing spent material may be placed on pads rather than tanks containers, or buildings. Solid mineral processing spent materials may not contain any free liquid. The department shall affirm that pads are designed, constructed and operated to prevent significant releases of the secondary material into the environment. Pads shall provide the same degree of containment as tanks, containers, and buildings that meet the design, construction, and operating requirements in subd. 3.

a. The department shall also consider if storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the groundwater, surface water, air exposure pathways are: the volume and physical and chemical properties of the secondary material, including its potential for migration off the pad; the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway; and the possibility and extent of harm to human and environmental receptors via each exposure pathway.

b. Pads shall meet the following minimum standards: be designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material, capable of withstanding physical stresses associated with placement and removal; have run on and runoff controls; be operated in a manner which controls fugitive dust; and have integrity assurance through inspections and maintenance programs.

c. Before making a determination under this subdivision, the department shall provide notice and the opportunity for comment to all persons potentially interested in the determination. This may be accomplished by placing notice of this action in major local newspapers or broadcasting notice over local radio stations.

5. The owner or operator provides notice to the department providing the following information: the types of materials to be recycled; the type and location of the storage units and recycling processes; and the annual quantities expected to be placed in land-based units. This notification shall be updated when there is a change in the type of materials recycled or the location of the recycling process.

6. For purposes specified in sub. (2) (g), mineral processing spent materials shall be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.

(r) Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process, SIC code 2911, along with normal petroleum refinery process streams, if all of the following are met:

1. The oil is hazardous only because it exhibits the characteristic of ignitability, D001, as defined in s. NR 661.0021 or exhibits the characteristic toxicity of benzene, D018, as defined in s. NR 661.0024.

2. The oil generated by the organic chemical manufacturing facility is not placed on the land or speculatively accumulated before being recycled into the petroleum refining process. An "associated organic chemical manufacturing facility" is a facility where the primary SIC code is 2869, but where operations may also include SIC codes 2821, 2822, and 2865; and is physically co-located with a petroleum refinery; and where the petroleum refinery to which the oil being recycled is returned also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. "Petrochemical recovered oil" means oil that has been reclaimed from secondary material, such as sludges, byproducts, or spent materials, including wastewater, from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.

(s) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid, unless the material is placed on the land or accumulated speculatively as defined in s. NR 661.0001 (3).

(t) Hazardous secondary material used to make zinc fertilizers, provided that all of the following conditions are met:

1. Hazardous secondary material used to make zinc micronutrient fertilizers shall not be accumulated speculatively, as defined in s. NR 661.0001 (3) (h).

2. Generators and intermediate handlers of zinc-bearing hazardous secondary material that are to be incorporated into zinc fertilizers shall do all of the following:

a. Submit a one-time notice to the department that contains the name, address and EPA identification number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary material under the conditions specified in this paragraph.

b. Store the excluded secondary material in tanks, containers, or buildings that are constructed and maintained in a way that prevents releases of the secondary material into the environment. At a minimum, any building used for that purpose shall be an engineered structure made of non-earthen materials that provide structural support, and shall have a floor, walls and a roof that prevent wind dispersal and contact with rainwater. Tanks used for that purpose shall be structurally sound and, if outdoors, shall have roofs or covers that prevent contact with wind and rain. Containers used for that purpose shall be kept closed except when it is necessary to add or remove material, and shall be in sound condition. Containers that are stored outdoors shall be managed within storage areas that have containment structures or systems sufficiently impervious to contain leaks, spills and accumulated precipitation; provide for effective drainage and removal of leaks, spills and accumulated precipitation; and prevent run-on into the containment system.

c. With each off-site shipment of excluded hazardous secondary material, provide written notice to the receiving facility that the material is subject to the conditions of this paragraph.

d. Maintain at the generator's or intermediate handlers' facility for no less than 3 years records of all shipments of excluded hazardous secondary material. For each shipment those records shall at a minimum contain the name of the transporter and date of the shipment; the name and address of the facility that received the excluded material, and documentation confirming receipt of the shipment; and the type and quantity of excluded secondary material in each shipment.

3. Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary material shall do all of the following:

a. Store excluded hazardous secondary material in accordance with the storage requirements for generators and intermediate handlers, as specified in subd. 2. b.

b. Submit a one-time notification to the department that, at a minimum, specifies the name, address and EPA identification number of the manufacturing facility and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary material under the conditions specified in this paragraph.

c. Maintain for a minimum of 3 years records of all shipments of excluded hazardous secondary material received by the manufacturer, which shall at a minimum identify for each shipment the name and address of the generating facility, name of transporter and date the materials were received, the quantity received, and a brief description of the industrial process that generated the material.

d. Submit to the department an annual report that identifies the total quantities of all excluded hazardous secondary material that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial process from which they were generated.

4. Nothing in this section preempts, overrides or otherwise negates the provision specified in s. NR 662.011, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

5. Licensed storage units that have been used to store only zinc-bearing hazardous wastes prior to the submission of the one-time notice described in subd. 2. a., and that afterward will be used only to store hazardous secondary material excluded under this paragraph, are not subject to the closure requirements under chs. NR 664 and 665.

(u) Zinc fertilizers made from hazardous wastes, or hazardous secondary material that are excluded under paragraph (t), provided that all of the following are met:

1. The fertilizers meet the following contaminant limits:

a. For metal contaminants:

Constituent	Maximum Allowable Total Concentration in

	Fertilizer, per Unit (1%) of Zinc (ppm)
Arsenic	0.3
Cadmium	1.4
Chromium	0.6
Lead	2.8
Mercury	0.3

b. For dioxin contaminants the fertilizer shall contain no more than 8 parts per trillion of dioxin, measured as toxic equivalent or TEQ.

2. The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals no less than every 6 months, and for dioxins no less than every 12 months. Testing shall also be performed whenever changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical method to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the product introduced into commerce.

3. The manufacturer maintains for no less than 3 years records of all sampling and analyses performed for purposes of determining compliance with the requirements specified in subd. 2. The records shall at a minimum include all of the following:

a. The dates and times product samples were taken, and the dates the samples were analyzed.

b. The name and qualifications of the person taking the samples.

c. A description of the methods and equipment used to take the samples.

d. The name and address of the laboratory facility at which analyses of the samples were performed.

e. A description of the analytical methods used, including any cleanup and sample preparation methods.

f. All laboratory analytical results used to determine compliance with the contaminant limits specified in this paragraph.

(v) Used CRTs, subject to all of the following:

1. Used, intact CRTs are not solid wastes unless they are disposed of, or unless they are speculatively accumulated as defined in s. NR 661.0001 (3) (h) by CRT collectors or glass processors.

2. Used, intact CRTs are not solid wastes when exported for recycling provided that they meet the requirements specified in s. NR 661.0040.

3. Used, broken CRTs are not solid wastes provided that they meet the requirements specified in s. NR 661.0039.

4. Glass removed from CRTs is not a solid waste provided that it meets the requirements specified in s. NR 661.0039 (3).

(w) Hazardous secondary material generated and legitimately reclaimed and under the control of the generator, provided that the material complies with all the following:

1. The material is one of the following:

a. The hazardous secondary material that is generated and reclaimed at the generating facility. For purposes of subd. 1. a. "generating facility" means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator.

b. The hazardous secondary material that is generated and reclaimed at different facilities, if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are controlled by a person as defined in s. NR 660.10 (90), and if the generator provides one of the following certifications: "on behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], which is controlled by [insert generator facility name] and that [insert name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material," or "on behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], that both facilities are under common control, and that [insert name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material." For purposes of this subd. 1. b. "control" means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who

operate facilities on behalf of a different person as defined in s. NR 660.10 (90) shall not be deemed to "control" such facilities. The generating and receiving facilities shall both maintain at their facilities, for no less than 3 years, records of hazardous secondary material sent or received under this exclusion. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received under the exclusion. These requirements may be satisfied by routine business records, such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations.

c. The hazardous secondary material that is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor, if the tolling contractor certifies the following: "On behalf of [insert tolling contractor name], I certify that [insert tolling contractor name] has a written contract with [insert toll manufacturer name] to manufacture [insert name of product or intermediate] which is made from specified unused materials, and that [insert tolling contractor name] will reclaim the hazardous secondary material generated during this manufacture. On behalf of [insert tolling contractor name], I also certify that [insert tolling contractor name] retains ownership of, and responsibility for, the hazardous secondary material that are generated during the course of the manufacture, including any releases of hazardous secondary material that occur during the manufacturing process." The tolling contractor shall maintain at its facility, for no less than 3 years, records of hazardous secondary material received pursuant to its written contract with the tolling manufacturer, and the tolling manufacturer shall maintain at its facility, for no less than 3 years, records of hazardous secondary material shipped pursuant to its written contract with the tolling contractor. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received pursuant to the written contract. These requirements may be satisfied by routine business records, such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations. For purposes of subd. 1. b. "tolling contractor" means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer, and "toll manufacturer" means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.

2. The hazardous secondary material generator satisfies all of the following conditions:

a. The hazardous secondary material is contained as defined in s. NR 660.10 (13m). A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for the purpose of reclamation. Hazardous secondary material managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded and a solid waste.

b. The hazardous secondary material is not speculatively accumulated, as defined in s. NR 661.0001 (3) (h).

c. Notice is provided as required by s. NR 660.42.

d. The material is not otherwise subject to material-specific management conditions under sub. (1) when reclaimed, and it is not a spent lead-acid battery under ss. NR 666.080 and 673.02

e. Persons performing the recycling of hazardous secondary material under this exclusion shall maintain documentation of their legitimacy determination on-site. Documentation shall be a written description of how the recycling meets all 3 factors specified in s. NR 660.43 (1) and how the factor in s. NR 660.43 (2) was considered. Documentation shall be maintained for 3 years after the recycling operation has ceased.

f. The emergency preparedness and response requirements in subch. M are met.

(x) Hazardous secondary material that is generated and then transferred to another person for the purpose of reclamation is not a solid waste, provided that all of the following are met:

1. The material is not speculatively accumulated, as defined in s. NR 661.0001 (3) (h).

2. The material is not handled by any person or facility other than the hazardous secondary material generator, the transporter, an intermediate facility or a reclaimer, and, while in transport, is not stored for more than 10 days at a transfer facility, as defined in s. NR 660.10 (122), and is packaged according to applicable DOT regulations under 49 CFR parts 173, 178, and 179, and Wisconsin department of transportation regulations at Trans ch. 326 while in transport.

3. The material is not otherwise subject to material-specific management conditions under sub. (1) when reclaimed, and it is not a spent lead-acid battery under ss. NR 666.080 and 673.02.

4. The reclamation of the material is legitimate, as specified in s. NR 660.43.

5. The hazardous secondary material generator satisfies all of the following conditions:

a. The material shall be contained as defined in s. NR 660.10 (13m). A hazardous secondary material released to the environment is considered discarded and a solid waste unless it is immediately recovered for the purpose of recycling. Hazardous secondary material managed in a unit with leaks or other continuing releases is considered discarded and a solid waste.

b. Prior to arranging for transport of hazardous secondary material to a reclamation facility where the management of the hazardous secondary material is not addressed under a RCRA part B permit or interim status standards, the hazardous secondary material generator shall make reasonable efforts to ensure that each reclaimer intends to properly and legitimately reclaim the hazardous secondary material and not discard it, and that each reclaimer will manage the hazardous secondary material in a manner that is protective of human health and the environment. If the hazardous secondary material will be passing through an intermediate facility where the management of the hazardous secondary material is not addressed under a RCRA part B permit or interim status standards, the hazardous secondary material generator shall make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent to the reclamation facility identified by the hazardous secondary material generator, and the hazardous secondary material generator shall perform reasonable efforts to ensure that the intermediate facility will manage the hazardous secondary material in a manner that is protective of human health and the environment. Reasonable efforts shall be repeated at a minimum of every 3 years for the hazardous secondary material generator to claim the exclusion and to send the hazardous secondary material to each reclaimer and any intermediate facility. In making these reasonable efforts, the generator may use any credible evidence available, including information gathered by the hazardous secondary material generator, provided by the reclaimer or intermediate facility, or provided by a third party. The hazardous secondary material generator shall affirmatively answer all of the following questions for each reclamation facility and any intermediate facility:

1) Does the available information indicate that the reclamation process is legitimate pursuant to s. NR 660.43? In answering this question, the hazardous secondary material generator may rely on their existing knowledge of the physical and chemical properties of the

hazardous secondary material, as well as information from other sources, such as the reclamation facility and audit reports, about the reclamation process.

2) Does the publicly available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator notified the appropriate authorities of hazardous secondary material reclamation activities pursuant to s. NR 660.42 and have they notified the appropriate authorities that the financial assurance condition is satisfied per subd. 6. f.? In answering these questions, the hazardous secondary material generator may rely on the available information documenting the reclamation facility's and any intermediate facility's compliance with the notification requirements per s. NR 660.42, including the requirement specified in s. NR 660.42 (1) (e) to notify the department whether the reclaimer or intermediate facility has financial assurance.

3) Does publicly available information indicate that the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has not had any formal enforcement actions taken against the facility in the previous 3 years for violations of the RCRA hazardous waste regulations and has not been classified as a significant noncomplier with RCRA Subtitle C? In answering this question, the hazardous secondary material generator may rely on the publicly available information from EPA or the department. If the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has had a formal enforcement action taken against the facility in the previous 3 years for violations of the RCRA hazardous waste regulations and has been classified as a significant non-complier with RCRA Subtitle C, does the hazardous secondary material generator have credible evidence that the facilities will manage the hazardous secondary material properly? In answering this question, the hazardous secondary material generator may obtain additional information from EPA, the department, or the facility itself that the facility has addressed the violations, taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the hazardous secondary material.

4) Does the available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material? In answering this question, the generator may rely on a description by the reclamation facility or by

an independent third party of the equipment and trained personnel to be used to recycle the generator's hazardous secondary material.

5) If residuals are generated from the reclamation of the excluded hazardous secondary material, does the reclamation facility have the licenses required, if any, to manage the residuals? If not, does the reclamation facility have a contract with an appropriately licensed facility to dispose of the residuals? If not, does the hazardous secondary material generator have credible evidence that the residuals will be managed in a manner that is protective of human health and the environment? In answering these questions, the hazardous secondary material generator can rely on publicly available information from EPA, the department, or information provided by the facility itself.

c. The hazardous secondary material generator shall maintains for a minimum of 3 years documentation and certification that reasonable efforts were made to meet the requirements under this paragraph for each reclamation facility and, if applicable, intermediate facility where the management of the hazardous secondary material is not addressed under a RCRA part B permit or interim status standards prior to transferring hazardous secondary material. Documentation and certification shall be made available upon request by the department within 72 hours, or within a longer period of time as specified by the department. The certification statement shall contain all of the following:

1) The printed name and official title of an authorized representative of the hazardous secondary material generator company, the authorized representative's signature, and the date signed.

2) The following language: "I hereby certify in good faith and to the best of my knowledge that, prior to arranging for transport of excluded hazardous secondary material to [insert name of reclamation facility and any intermediate facility], reasonable efforts were made in accordance with s. NR 661.0004 (1) (x) 5. b. to ensure that the hazardous secondary material would be recycled legitimately, and otherwise managed in a manner that is protective of human health and the environment, and that such efforts were based on current and accurate information."

d. The hazardous secondary material generator shall maintain at the generating facility, for no less than 3 years, records of all off-site shipments of hazardous secondary material. For each shipment, those records shall, at a minimum, contain all of the following information:

1) The name of the transporter and date of the shipment.

2) The name and address of each reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent.

3) The type and quantity of hazardous secondary material in the shipment.

d. The hazardous secondary material generator shall maintain at the generating facility, for no less than 3 years, confirmations of receipt from each reclaimer and, if applicable, each intermediate facility for all off-site shipments of hazardous secondary material. Confirmations of receipt shall include the name and address of the reclaimer or intermediate facility, the type and quantity of the hazardous secondary material received, and the date on which the hazardous secondary material were received. This requirement may be satisfied by routine business records, such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

e. The hazardous secondary material generator complies with the emergency preparedness and response conditions in subch. M.

6. Reclaimers of hazardous secondary material excluded from regulation under this exclusion and intermediate facilities as defined in s. NR 660.10 (65m) shall satisfy all of the following conditions:

a. The reclaimer and intermediate facility shall maintain at its facility, for no less than 3 years, records of all shipments of hazardous secondary material that were received at the facility and, if applicable, for all shipments of hazardous secondary material that were received and subsequently sent off-site from the facility for further reclamation. For each shipment, these records shall at a minimum contain all of the following information:

1) The name of the transporter and date of the shipment.

2) The name and address of the hazardous secondary material generator and, if applicable, the name and address of the reclaimer or intermediate facility from which the hazardous secondary material were received.

3) The type and quantity of hazardous secondary material in the shipment.

4) For hazardous secondary material that, after being received by the reclaimer or intermediate facility, were subsequently transferred off-site for further reclamation, the name and address of the subsequent reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent.

b. The intermediate facility shall send the hazardous secondary material to the reclaimers designated by the hazardous secondary material generator.

c. The reclaimer and intermediate facility shall send to the hazardous secondary material generator confirmations of receipt for all off-site shipments of hazardous secondary material. Confirmations of receipt shall include the name and address of the reclaimer or intermediate facility, the type and quantity of the hazardous secondary material received, and the date on which the hazardous secondary material were received. This requirement may be satisfied by routine business records, such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

d. The reclaimer and intermediate facility shall manage the hazardous secondary material in a manner that is at least as protective as that employed for analogous raw material and the hazardous secondary material shall be contained. "Analogous raw material" means a raw material for which a hazardous secondary material is a substitute and that serves the same function and has similar physical and chemical properties as the hazardous secondary material.

e. Any residuals that are generated from reclamation processes will be managed in a manner that is protective of human health and the environment. If any residuals exhibit a hazardous characteristic according to subch. C of ch. NR 661, or if the residuals are specifically listed in subch. D of ch. NR 661, the residuals are hazardous wastes and shall be managed in accordance with the applicable requirements under chs. NR 660 through 670.

f. The reclaimer and intermediate facility have financial assurance as required under subch. H of ch. NR 661.

g. The reclaimer and intermediate facility have been granted a variance under s. NR 660.31 (4) or have a RCRA Part B permit or interim status standards, or hazardous waste license under s. 291.25, Stats. that address the management of the hazardous secondary material.

7. All persons claiming the exclusion under this paragraph shall provide notification as required under s. NR 660.42.

(y) Hazardous secondary material that is exported from the United States and reclaimed at a reclamation facility located in a foreign country is not a solid waste, provided that the hazardous secondary material generator complies with the applicable requirements under par. (x) 1. to 5., excepting par. (x) 5. b. 2) for foreign reclaimers and foreign intermediate facilities, and

that the hazardous secondary material generator also complies with all of the following requirements:

1. The hazardous secondary material generator shall notify EPA of an intended export before the hazardous secondary material is scheduled to leave the United States. A complete notification shall be submitted 60 days before the initial shipment is intended to be shipped off-site. The notification may cover export activities extending over a 12 month or lesser period. The notification shall be in writing, signed by the hazardous secondary material generator, and include all of the following information:

a. The name, mailing address, telephone number and EPA ID number, if applicable, of the hazardous secondary material generator.

b. A description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material were managed as hazardous waste and the U.S. DOT proper shipping name, hazard class and ID number (UN/NA) for each hazardous secondary material as identified in 49 CFR parts 171 through 177.

c. The estimated frequency or rate at which the hazardous secondary material is to be exported and the period of time over which the hazardous secondary material is to be exported.

d. The estimated total quantity of hazardous secondary material.

e. All points of entry to and departure from each foreign country through which the hazardous secondary

material will pass.

f. A description of the means by which each shipment of the hazardous secondary material will be transported, such as mode of transportation vehicle (air, highway, rail, water, etc.), type of container (drums, boxes, tanks, etc.).

g. A description of the manner in which the hazardous secondary material will be reclaimed in the country of import.

h. The name and address of the reclaimer, any intermediate facility and any alternate reclaimer and intermediate facilities.

i. The name of any countries of transit through which the hazardous secondary material will be sent and a description of the approximate length of time it will remain in such countries and the nature of its handling while there.

Note: For purposes of this paragraph, the terms ‘‘EPA acknowledgement of consent’’, ‘‘country of import’’ and ‘‘country of transit’’ are used as defined in s. NR 662.081 with the exception that the terms in this section refer to hazardous secondary material, rather than hazardous waste.

2. Notifications shall be submitted electronically using EPA’s Waste Import Export Tracking System or its successor system.

3. Except for changes to the telephone number in subd. 1. a. and decreases in the quantity of hazardous secondary material indicated pursuant to subd. 1. d., when the conditions specified on the original notification change, including any exceedance of the estimate of the quantity of hazardous secondary material specified in the original notification, the hazardous secondary material generator shall provide EPA with a written renotification of the change. Except for changes to subd. 1. i. and in the ports of entry to and departure from countries of transit pursuant to subd. 1. e., the shipment may not take place until consent to the changes from the country of import has been obtained and the hazardous secondary material generator receives from EPA an EPA acknowledgment of consent reflecting the country of import’s consent to the changes.

4. Upon request by EPA, the hazardous secondary material generator shall furnish to EPA any additional information a country of import requests in order to respond to a notification.

5. EPA will provide a complete notification to the country of import and any countries of transit. A notification is complete when EPA receives a notification that EPA determines satisfies the requirements specified in subd. 1. When a claim of confidentiality is asserted with respect to any notification information required by subd. 1., EPA may find the notification not complete until any such claim is resolved in accordance with 40 CFR 260.2.

6. The export of hazardous secondary material under this paragraph is prohibited unless the country of import consents to the intended export. When the country of import consents in writing to the receipt of the hazardous secondary material, EPA will send an EPA acknowledgment of consent to the hazardous secondary material generator. Where the country of import objects to receipt of the hazardous secondary material or withdraws a prior consent, EPA will notify the hazardous secondary material generator in writing. EPA will also notify the hazardous secondary material generator of any responses from countries of transit.

7. For exports to OECD member countries, the receiving country may respond to the notification using tacit consent. If no objection has been lodged by any country of import or countries of transit to a notification provided pursuant to subd. 1. within 30 days after the date of issuance of the acknowledgement of receipt of notification by the competent authority of the country of import, the transboundary movement may commence. In such cases, EPA will send an EPA acknowledgment of consent to inform the hazardous secondary material generator that the country of import and any relevant countries of transit have not objected to the shipment, and are thus presumed to have consented tacitly. Tacit consent expires one calendar year after the close of the 30 day period. Renotification and renewal of all consents is required for exports after that date.

8. A copy of the EPA acknowledgment of consent shall accompany the shipment. The shipment shall conform to the terms of the EPA acknowledgment of consent.

9. If, for any reason, a shipment cannot be delivered to the reclaimer, intermediate facility, or the alternate reclaimer or alternate intermediate facility, the hazardous secondary material generator shall re-notify EPA of a change in the conditions of the original notification to allow shipment to a new reclaimer in accordance with subd. 3. and obtain another EPA acknowledgment of consent.

10. A hazardous secondary material generator shall keep a copy of each notification of intent to export and each EPA acknowledgment of consent for a period of 3 years following receipt of the EPA acknowledgment of consent. A hazardous secondary material generator may satisfy this recordkeeping requirement by retaining electronically submitted notifications or electronically generated acknowledgements in their account on EPA's Waste Import Export Tracking System, or its successor system, provided that such copies are readily available for viewing and production if requested by EPA or the department. No hazardous secondary material generator may be held liable for the inability to produce a notification or acknowledgement for inspection under this section if they can demonstrate that the inability to produce such copies are due exclusively to technical difficulty with EPA's Waste Import Export Tracking System, or its successor system, for which the hazardous secondary material generator bears no responsibility.

11. A hazardous secondary material generator shall file with the EPA administrator no later than March 1 of each year a report summarizing the types, quantities, frequency, and

ultimate destination of all hazardous secondary material exported during the previous calendar year. Annual reports shall be submitted electronically using EPA's Waste Import Export Tracking System, or its successor system. Such reports shall include all of the following information:

a. The name, mailing and site address, and EPA ID number, if applicable, of the hazardous secondary material generator.

b. The calendar year covered by the report.

c. The name and site address of each reclaimer and intermediate facility.

d. By reclaimer and intermediate facility, for each hazardous secondary material exported, a description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material was managed as hazardous waste, the DOT hazard class, the name and EPA ID number, where applicable, for each transporter used, the total amount of hazardous secondary material shipped and the number of shipments pursuant to each notification.

e. A certification signed by the hazardous secondary material generator that states: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

12. All persons claiming an exclusion under this paragraph shall provide notification as required by s. NR 660.42.

Note: The requirements of par. (y) are based on 40 CFR 261.4 (a) (25) and are administered by EPA and not the department because the exercise of foreign relations and international commerce powers is reserved to the federal government under the U.S. Constitution. Wisconsin has adopted these requirements into its rules for the convenience of the regulated community and for completeness. The enforcement of the 40 CFR 261.4 (a) (25) requirements remains EPA's responsibility even though Wisconsin has adopted these requirements into its rules. Wisconsin plays a key role in providing EPA with information on whether Wisconsin facilities designated to receive hazardous waste imports are authorized to

manage specific wastes and in ensuring facility compliance with all applicable environmental laws and rules.

(z) Solvent-contaminated wipes that are sent for cleaning and reuse are not solid wastes from the point of generation, provided all of the following are met:

1. The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, or when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container shall be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions.

2. The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for cleaning.

3. At the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the solvent-contaminated wipes shall contain no free liquids as defined in s. NR 660.10 (48).

4. Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes shall be managed according to the applicable regulations specified in chs. NR 660 to 673.

5. A generator shall maintain at its site all of the following documentation:

a. Name and address of the laundry or dry cleaner that is receiving the solvent-contaminated wipes.

b. Documentation that the 180-day accumulation time limit under subd. 2 is being met.

c. Description of the process the generator is using to ensure the solvent-contaminated wipes contain no free liquids at the point of being laundered or dry cleaned on-site or at the point of being transported off-site for laundering or dry cleaning.

6. The solvent-contaminated wipes are sent to a laundry or dry cleaner whose discharge, if any, is regulated under 33 USC 1311 and 33 USC 1342 or 33 USC 1317, and ch. 283, Wis. Stats.

(za) Hazardous secondary material that is generated and then transferred to another person for the purpose of remanufacturing is not a solid waste, provided that all of the following are met:

1. The hazardous secondary material consists of one or more of the following spent solvents: toluene, xylenes, ethylbenzene, 1,2,4-trimethylbenzene, chlorobenzene, n-hexane, cyclohexane, methyl tert-butyl ether, acetonitrile, chloroform, chloromethane, dichloromethane, methyl isobutyl ketone, NN-dimethylformamide, tetrahydrofuran, n-butyl alcohol, ethanol, or methanol.

2. The hazardous secondary material originated from using one or more of the solvents listed in subd. 1. in a commercial grade for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, in the pharmaceutical manufacturing, NAICS 325412, basic organic chemical manufacturing, NAICS 325199, plastics and resins manufacturing, NAICS 325211, or the paints and coatings manufacturing, NAICS 325510, sectors. All NAICS categories are incorporated by reference in s. NR 660.11.

3. The hazardous secondary material generator sends the hazardous secondary material spent solvents listed in subd. 1. to a remanufacturer in the pharmaceutical manufacturing, NAICS 325412, basic organic chemical manufacturing, NAICS 325199, plastics and resins manufacturing, NAICS 325211, or the paints and coatings manufacturing, NAICS 325510, sectors.

4. After remanufacturing one or more of the solvents listed in subd. 1., the use of the remanufactured solvent shall be limited to reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, in the pharmaceutical manufacturing, NAICS 325412, basic organic chemical manufacturing, NAICS 325199, plastics and resins manufacturing, NAICS 325211, and the paints and coatings manufacturing, NAICS 325510, sectors or to using them as ingredients in a product. These allowed uses correspond to chemical functional uses enumerated under the Chemical Data Reporting Rule of the Toxic Substances Control Act, 40 CFR parts 704, 710-711, including Industrial Function Codes U015, solvents consumed in a reaction to produce other chemicals, and U030, solvents become part of the mixture.

5. After remanufacturing one or more of the solvents listed in subd. 1., the use of the remanufactured solvent does not involve cleaning or degreasing oil, grease, or similar material

from textiles, glassware, metal surfaces, or other articles. These disallowed continuing uses correspond to chemical functional uses in Industrial Function Code U029 under the Chemical Data Reporting Rule of the Toxics Substances Control Act.

6. Both the hazardous secondary material generator and the remanufacturer shall do all of the following:

a. Notify the department and update the notification every 2 years per s. NR 660.42. The generator shall notify the department that the hazardous secondary material has been transferred to a remanufacturer. The remanufacturer shall notify the department that the hazardous secondary material has been received from the generator for remanufacturing.

b. Develop and maintain an up-to-date remanufacturing plan that identifies all of the following:

1) The name, address and EPA ID number of the generator and the remanufacturer.

2) The types and estimated annual volumes of spent solvents to be remanufactured.

3) The processes and industry sectors that generated the spent solvents.

4) The specific uses and industry sectors for the remanufactured solvents.

5) A certification from the remanufacturer stating "on behalf of [insert remanufacturer facility name], I certify that this facility is a remanufacturer under pharmaceutical manufacturing, NAICS 325412, basic organic chemical manufacturing, NAICS 325199, plastics and resins manufacturing, NAICS 325211, or the paints and coatings manufacturing sectors, NAICS 325510, and will accept the spent solvent for the sole purpose of remanufacturing into commercial-grade solvent that will be used for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions or for use as product ingredient. I also certify that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulation codified under 40 CFR parts 60, 61, or 63, or subject to ch. NR 440, subch. III and IV of ch. 446, or chs. 447 to 469, or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in subchs. AA, BB, and CC of ch. 661."

c. Maintain records of shipments and confirmations of receipts for a period of 3 years from the dates of the shipments.

d. Prior to remanufacturing, store the hazardous spent solvents in tanks or containers that meet technical standards found in subchs. I and J, with the tanks and containers being labeled or otherwise having an immediately available record of the material being stored.

e. During remanufacturing, and during storage of the hazardous secondary material prior to remanufacturing, the remanufacturer certifies that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulation codified under 40 CFR parts 60, 61, or 63, or subject to NR 440, subchs. III and IV of ch. NR 446, or 447 to 469; or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in subchs. AA, BB, and CC.

f. Meet the requirements prohibiting speculative accumulation under s. 661.0001 (3) (h).

(2) SOLID WASTES THAT ARE NOT HAZARDOUS WASTES. All of the following solid wastes are not hazardous wastes:

(a) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered, such as refuse-derived fuel, or reused, except if the hazardous waste in this waste stream is separated for management at a collection facility regulated under subch. HH of ch. NR 666. "Household waste" means any material, including garbage, trash and sanitary wastes in septic tanks, derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas. A resource recovery facility managing municipal solid waste may not be deemed to be treating, storing, disposing of or otherwise managing hazardous wastes for the purposes of regulation under chs. NR 660 to 673, if the facility does all of the following:

1. Receives and burns only the following:

a. Household waste from single and multiple dwellings, hotels, motels, and other residential sources.

b. Solid waste from commercial or industrial sources that does not contain hazardous waste.

2. Does not accept hazardous wastes and the owner or operator of the facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in the facility.

(b) Solid wastes generated by any of the following and that are returned to the soils as fertilizers:

1. The growing and harvesting of agricultural crops.

2. The raising of animals, including animal manures.

(c) Mining overburden returned to the mine site.

(d) All of the following:

1. Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided by s. NR 666.112 for facilities that burn or process hazardous waste.

2. All of the following wastes generated primarily from processes that support the combustion of coal or other fossil fuels that are co-disposed with the wastes in subd. 1., except as provided by s. NR 666.112 for facilities that burn or process hazardous waste:

a. Coal pile run-off. For purposes of this subd. 1. a., "coal pile run-off" means any precipitation that drains off coal piles.

b. Boiler cleaning solutions. For purposes of this subd. 1. b., "boiler cleaning solutions" means water solutions and chemical solutions used to clean the fire-side and water-side of the boiler.

c. Boiler blowdown. For purposes of this subd. 1. c. "boiler blowdown" means water purged from boilers used to generate steam.

d. Process water treatment and demineralizer regeneration wastes. For purposes of this subd. 1. d., "process water treatment and demineralizer regeneration wastes" means sludges, rinses, and spent resins generated from processes to remove dissolved gases, suspended solids, and dissolved chemical salts from combustion system process water.

e. Cooling tower blowdown. For purposes of this subd. 1. e., "cooling tower blowdown" means water purged from a closed cycle cooling system. Closed cycle cooling systems include cooling towers, cooling ponds, or spray canals.

f. Air heater and precipitator washes. For purposes of this subd. 1. f., "air heater and precipitator washes" means wastes from cleaning air preheaters and electrostatic precipitators.

g. Effluents from floor and yard drains and sumps. For purposes of subd. 1. d., "effluents from floor and yard drains and sumps" means wastewaters, such as wash water, collected by or from floor drains, equipment drains, and sumps located inside the power plant

building; and wastewaters, such as rain runoff, collected by yard drains and sumps located outside the power plant building.

h. Wastewater treatment sludges. For purposes of this subd. 1. h., "wastewater treatment sludges" refers to sludges generated from the treatment of wastewaters specified in subd. 2. a. to f.

(e) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

(f) All of the following:

1. Wastes that fail the test for the toxicity characteristic specified in NR 661.0024 because chromium is present or are listed in subch. D due to the presence of chromium, which do not fail the test for the Toxicity Characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that all of the following apply:

a. The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium.

b. The waste is generated from an industrial process that uses trivalent chromium exclusively, or nearly exclusively, and the process does not generate hexavalent chromium.

c. The waste is typically and frequently managed in non-oxidizing environments.

2. Specific wastes that meet the standard in subd. 1. a. to c., so long as they do not fail the test for the toxicity characteristic for any other constituent, and do not exhibit any other characteristic, are any of the following:

a. Chrome blue trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp or chrome tan or retan or wet finish, hair save or chrome tan or retan or wet finish, retan or wet finish, no beamhouse, through-the-blue, and shearling.

b. Chrome blue shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp or chrome tan or retan or wet finish, hair save or chrome tan or retan or wet finish, retan or wet finish, no beamhouse, through-the-blue, and shearling.

c. Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp or chrome tan or retan or wet finish, hair save or chrome tan or retan or wet finish, retan or wet finish, no beamhouse, through-the-blue.

d. Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp or chrome tan or retan or wet finish, hair save or chrome tan or retan or wet finish, retan or wet finish, no beamhouse, through-the-blue, and shearling.

e. Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp or chrome tan or retan or wet finish, hair save or chrome tan or retan or wet finish, retan or wet finish, no beamhouse, through-the-blue, and shearling.

f. Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp or chrome tan or retan or wet finish, hair save or chrome tan or retan or wet finish, and through-the-blue.

g. Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

h. Wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process.

(g) Solid waste from the extraction, beneficiation, and processing of ores and minerals, including coal, phosphate rock, and overburden from the mining of uranium ore, except as provided under s. NR 666.112 for facilities that burn or process hazardous waste.

1. For purposes of par. (g) beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water or carbon dioxide; roasting, autoclaving, or chlorination in preparation for leaching, except where the roasting, autoclaving, chlorination, or leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing; gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching.

2. For the purposes par. (g), solid waste from the processing of ores and minerals includes only the following wastes as generated:

a. Slag from primary copper processing.

b. Slag from primary lead processing.

c. Red and brown muds from bauxite refining.

d. Phosphogypsum from phosphoric acid production.

e. Slag from elemental phosphorus production.

f. Gasifier ash from coal gasification.

g. Process wastewater from coal gasification.

h. Calcium sulfate wastewater treatment plant sludge from primary copper processing.

i. Slag tailings from primary copper processing.

j. Fluorogypsum from hydrofluoric acid production.

k. Process wastewater from hydrofluoric acid production.

L. Air pollution control dust/sludge from iron blast furnaces.

m. Iron blast furnace slag.

n. Treated residue from roasting/leaching of chrome ore.

o. Process wastewater from primary magnesium processing by the anhydrous process.

p. Process wastewater from phosphoric acid production.

q. Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production.

r. Basic oxygen furnace and open hearth furnace slag from carbon steel production.

s. Chloride process waste solids from titanium tetrachloride production.

t. Slag from primary zinc processing.

3. A residue derived from co-processing mineral processing secondary material with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under sub. (2) if the owner or operator does all of the following:

a. Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials.

b. Legitimately reclaims the secondary mineral processing materials.

(h) Cement kiln dust waste, except as provided by s. NR 666.112 for facilities that burn or process hazardous waste.

(i) Solid waste that consists of discarded arsenical-treated wood or wood products that fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and that is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(j) Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic specified in s. NR 661.0024 for any of the hazardous waste codes D018 through D043 only, and are subject to the corrective action rules under chs. ATCP 93 and NR 706.

(L) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

(m) Non-terne plated used oil filters that are not mixed with wastes listed in subch. D if these oil filters have been gravity hot-drained using one of the following methods:

1. Puncturing the filter anti-drain back valve or the filter dome end and hot-draining.

2. Hot-draining and crushing.

3. Dismantling and hot-draining.

4. Any other equivalent hot-draining method that will remove used oil.

(n) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

(o) Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided that all of the following are met:

1. The solid wastes disposed would meet one or more of the listing descriptions for hazardous waste codes K169, K170, K171, K172, K174, K175, K176, K177, K178, and K181 if these wastes had been generated after the effective date of the listing.

2. The solid wastes described in subd. 1. were disposed prior to the effective date of the listing.

3. The leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste.

4. Discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is subject to regulation under ch. 283, Stats., or 33 USC 1317 (b) or 1342.

5. As of February 13, 2001, leachate or gas condensate derived from K169 to K172 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. As of November 21, 2003, leachate or gas condensate derived from K176, K177, and K178 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. After February 26, 2007, leachate or gas condensate derived from K181 will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. One exception to these requirements is the following: if the surface impoundment is used to temporarily store leachate

or gas condensate in response to an emergency situation, such as shutdown of wastewater treatment system, provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of this subdivision after the emergency ends.

(r) Solvent-contaminated wipes, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are not hazardous wastes from the point of generation provided all of the following are met:

1. The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, or when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container shall be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions.

2. The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for disposal.

3. At the point of being transported for disposal, the solvent-contaminated wipes shall contain no free liquids as defined in s. NR 660.10 (48).

4. Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes shall be managed according to the applicable regulations under chs. NR 660 to 667.

5. A generator shall maintain at its site all of the following documentation:

a. Name and address of the landfill or combustor that is receiving the solvent-contaminated wipes.

b. Documentation that the 180 day accumulation time limit in subd. 2. is being met.

c. Description of the process the generator is using to ensure solvent-contaminated wipes contain no free liquids at the point of being transported for disposal.

6. The solvent-contaminated wipes are sent for disposal to any of the following:

a. To a municipal solid waste landfill regulated under 40 CFR part 258, including 40 CFR 258.40, or to a hazardous waste landfill regulated under ch. NR 664 or 665.

b. To a municipal waste combustor or other combustion facility regulated under 42 USC 7429, or to a hazardous waste combustor, boiler, or industrial furnace regulated under ch. NR 664 or 665 or subch. H of ch. NR 666.

(3) HAZARDOUS WASTES THAT ARE EXEMPTED FROM CERTAIN REGULATIONS. A hazardous waste generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under chs. NR 662 to 665, 668, and 670 or to the notification requirements specified in s. NR 660.07 until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

(4) SAMPLES. (a) Except as provided in par. (b) and (d), a sample of solid waste or a sample of water, soil, or air collected for the sole purpose of testing to determine its characteristics or composition is not subject to any requirements under this chapter or chs. NR 662 to 670 or to the notification requirements under s. NR 660.07, when one of the following occurs:

1. The sample is being transported to a laboratory for the purpose of testing.

2. The sample is being transported back to the sample collector after testing.

3. The sample is being stored by the sample collector before transport to a laboratory for testing.

4. The sample is being stored in a laboratory before testing.

5. The sample is being stored in a laboratory after testing but before it is returned to the sample collector.

6. The sample is being stored temporarily in the laboratory after testing for a specific purpose, such as until conclusion of a court case or enforcement action when further testing of the sample may be necessary.

(b) In order to qualify for the exemption in par. (a) 1. and 2., a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector shall do one of the following:

1. Comply with U.S. department of transportation or DOT, U.S. postal service or USPS, or any other applicable shipping requirements.

2. Comply with all of the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

a. Assure that all of the following information accompanies the sample:

1) The sample collector's name, mailing address, and telephone number.

2) The laboratory's name, mailing address, and telephone number.

3) The quantity of the sample.

4) The date of shipment.

5) A description of the sample.

b. Package the sample so that it does not leak, spill, or vaporize from its packaging.

(c) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in par. (a).

(d) In order to qualify for the exemption in par. (a) 1. and 2., the mass of a sample that will be exported to a foreign laboratory or that will be imported to a U.S. laboratory from a foreign source shall not exceed 25 kg.

(5) TREATABILITY STUDY SAMPLES. (a) Except as provided in par. (b) and (d), persons who generate or collect samples for the purpose of conducting treatability studies as defined in s. NR 660.10 (126), are not subject to any requirement of chs. NR 661 to 663 or to the notification requirements specified in s. NR 660.07, nor are such samples included in the quantity determinations of ss. NR 662.013 and 662.16 (2) when one of the following applies:

1. The sample is being collected and prepared for transportation by the generator or sample collector.

2. The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility.

3. The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.

(b) The exemption in par. (a) is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies if all of the following apply:

1. The generator or sample collector uses, in treatability studies, no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1,000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, and 2,500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream.

2. The mass of each sample shipment does not exceed 10,000 kg. The 10,000 kg quantity may be all media contaminated with non-acute hazardous waste, or may include 2,500 kg of media contaminated with acute hazardous waste, 1,000 kg of hazardous waste, and 1 kg of acute hazardous waste.

3. The sample shall be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and one of the following requirements shall be met:

a. The transportation of each sample shipment complies with U.S. department of transportation or DOT, U.S. postal service or USPS, or any other applicable shipping requirements.

b. If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, all of the following information shall accompany the sample:

1) The name, mailing address, and telephone number of the originator of the sample.

2) The name, address, and telephone number of the facility that will perform the treatability study.

3) The quantity of the sample.

4) The date of shipment.

5) A description of the sample, including its EPA hazardous waste number.

4. The sample is shipped to a laboratory or testing facility that is exempt under s. NR 661.0004 (6) or has an appropriate RCRA permit or interim status, or hazardous waste license under s. 291.25, Stats.

5. The generator or sample collector maintains all of the following records for a period ending 3 years after completion of the treatability study:

a. Copies of the shipping documents.

b. A copy of the contract with the facility conducting the treatability study.

c. Documentation showing all of the following:

1) The amount of waste shipped under this exemption.

2) The name, address, and EPA identification number of the laboratory or testing facility that received the waste.

3) The date the shipment was made.

4) Whether or not unused samples and residues were returned to the generator.

6. The generator reports the information required under subd. 5. c. in its annual report.

(c) The department may grant requests on a case-by-case basis for up to an additional 2 years for treatability studies involving bioremediation. The department may grant requests on a case-by-case basis for quantity limits in excess of those specified in par. (b) 1. and 2., and sub. (6) (d), for up to an additional 5,000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2,500 kg of media contaminated with acute hazardous waste and 1 kg of acute hazardous waste for any of the following reasons:

1. In response to requests for authorization to ship, store and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology, the type of process, such as batch versus continuous, size of the unit undergoing testing, particularly in relation to scale-up considerations, the time and quantity of material required to reach steady state operating conditions, or test design considerations such as mass balance calculations.

2. In response to requests for authorization to ship, store and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, when any of the following apply: there has been an equipment or mechanical failure during the conduct of a treatability study, there is a need to verify the results of a previously conducted treatability study, there is a need to study and analyze alternative techniques within a previously evaluated treatment process, or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

3. The additional quantities and timeframes allowed in par. (c) 1. and 2. are subject to all of the provisions in par. (a) and par. (b) 3. to 6. The generator or sample collector shall apply to the department and provide in writing all of the following information:

a. The reason the generator or sample collector requires additional time or quantity of sample for treatability study evaluation and the additional time or quantity needed.

b. Documentation accounting for all samples of hazardous waste from the waste stream that have been sent for or undergone treatability studies including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results on each treatability study.

c. A description of the technical modifications or change in specifications that will be evaluated and the expected results.

d. If such further study is being required due to equipment or mechanical failure, the applicant shall include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns.

e. Other information that the department considers necessary.

4. In order to qualify for the exemption in par. (a) 1., the mass of a sample that will be exported to a foreign laboratory or testing facility, or that will be imported to a U.S. laboratory or testing facility from a foreign source, shall additionally not exceed 25 kg.

(6) SAMPLES UNDERGOING TREATABILITY STUDIES AT LABORATORIES AND TESTING FACILITIES. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies, to the extent such facilities are not otherwise subject to chs. NR 660 to 670, are not subject to any requirement under this chapter, chs. NR 662 to 670, or to the notification requirements under s. NR 660.07 provided that all of the conditions under par. (a) to (k) are met. A mobile treatment unit, or MTU, may qualify as a testing facility subject to par (a) to (k). Where a group of MTUs are located at the same site, the limitations in par. (a) to (k) apply to the entire group of MTUs collectively as if the group were one MTU.

(a) No less than 45 days before conducting treatability studies, the facility notifies the department in writing that it intends to conduct treatability studies under this subsection.

(b) The laboratory or testing facility conducting the treatability study has an EPA identification number.

(c) No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste, 2,500 kg of media contaminated with acute hazardous waste or 250 kg of other "as received" hazardous waste is subject to initiation of treatment in all treatability studies

in any single day. For the purpose of this subsection, "as received" means waste as received in the shipment from the generator or sample collector.

(d) The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which may include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials, including nonhazardous solid waste, added to "as received" hazardous waste.

(e) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year, or 2 years for treatability studies involving bioremediation, have elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to 5 years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

(f) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

(g) The facility maintains records for 3 years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. All of the following information shall be included for each treatability study conducted:

1. The name, address, and EPA identification number of the generator or sample collector of each waste sample.

2. The date the shipment was received.

3. The quantity of waste accepted.

4. The quantity of "as received" waste in storage each day.

5. The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day.

6. The date the treatability study was concluded.

7. The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the EPA identification number.

(h) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of each treatability study.

(i) The facility prepares and submits a report to the department, by March 15 of each year, that includes all of the following information for the previous calendar year:

1. The name, address, and EPA identification number of the facility conducting the treatability studies.

2. The types, by process, of treatability studies conducted.

3. The names and addresses of persons for whom studies have been conducted, including their EPA identification numbers.

4. The total quantity of waste in storage each day.

5. The quantity and types of waste subjected to treatability studies.

6. When each treatability study was conducted.

7. The final disposition of residues and unused sample from each treatability study.

(j) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under s. NR 661.0003 and, if so, are subject to chs. NR 661 to 670, unless the residues and unused samples are returned to the sample originator under the sub. (5) exemption.

(k) The facility notifies the department by letter when the facility is no longer planning to conduct any treatability studies at the site.

(10) AIRBAG WASTE. (a) Airbag waste at the airbag waste handler or during transport to an airbag waste collection facility or designated facility is not subject to regulation under chs. NR 662 to 668 or ch. NR 670, and is not subject to the notification requirements under s. NR 660.07 provided all of the following are met:

1. The airbag waste is accumulated in a quantity of no more than 250 airbag modules or airbag inflators, for no longer than 180 days.

2. The airbag waste is packaged in a container designed to address the risk posed by the airbag waste and labeled “Airbag Waste-Do Not Reuse.”

3. The airbag waste is sent directly to one of the following facilities:

a. An airbag waste collection facility in the United States under the control of a vehicle manufacturer or its authorized representative, or under the control of an authorized party administering a remedy program in response to a recall under the National Highway Traffic Safety Administration.

b. A designated facility as defined in s. NR 660.10 (21).

4. The transport of the airbag waste complies with all applicable U.S. Department of Transportation regulations under 49 CFR part 171 through 180 during transit.

5. The airbag waste handler maintains at the handler facility, for no less than 3 years, records of all off-site shipments of airbag waste and all confirmations of receipt from the receiving facility. For each shipment, these records shall, at a minimum, contain the name of the transporter and date of the shipment; name and address of receiving facility; and the type and quantity of airbag waste in the shipment. Confirmations of receipt shall include the name and address of the receiving facility; the type and quantity of the airbag waste received; and the date on which it was received. Shipping records and confirmations of receipt shall be made available for inspection and may be satisfied by routine business records, such as electronic or paper financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(b) Once the airbag waste arrives at an airbag waste collection facility or designated facility, it becomes subject to all applicable hazardous waste regulations, and the facility receiving airbag waste is considered the hazardous waste generator for the purposes of the hazardous waste regulations and shall comply with the requirements under ch. NR 662.

(c) Reuse in vehicles of defective airbag modules or defective airbag inflators subject to a recall under the National Highway Traffic Safety Administration is considered sham recycling and prohibited under s. NR 661.0002 (7).

NR 661.0006 Requirements for recyclable materials. (1) (a) Except for the materials listed in pars. (b) and (c), hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities under subs. (2) and (3). Hazardous wastes that are recycled will be known as "recyclable materials."

(b) The following recyclable materials are not subject to the requirements of this section but are regulated under subchs. C to N of ch. NR 666 and all applicable provisions in chs. NR 668 and 670:

1. Recyclable materials used in a manner constituting disposal, as specified in subch. C of ch. NR 666.

2. Hazardous wastes burned, as defined in s. NR 666.100 (1), in boilers and industrial furnaces that are not regulated under subch. O of chs. NR 664 or 665, subch. H of ch. NR 666.

3. Recyclable materials from which precious metals are reclaimed as specified in subch. F of ch. NR 666.

4. Spent lead-acid batteries that are being reclaimed, as specified in subch. G of ch. NR 666.

(c) The following recyclable materials are not subject to regulation under chs. NR 662 to 670, and are not subject to the notification requirements specified in s. NR 660.07:

1. Industrial ethyl alcohol that is reclaimed, except that exports and imports of such recyclable materials shall comply with the requirements under subch. H of ch. NR 662 and all of the following:

a. A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, shall comply with the requirements applicable to a primary exporter in ss. NR 662.053, 662.056 (1) (a) to (d), (f), and (2), and 662.057, shall export such materials only upon consent of the receiving country and in conformance with the EPA acknowledgment of consent as defined in subch. H of ch. NR 662, and shall provide a copy of the EPA acknowledgment of consent to the shipment to the transporter transporting the shipment for export.

b. A transporter transporting a shipment for export may not accept a shipment if the transporter knows the shipment does not conform to the EPA acknowledgment of consent. The transporter shall ensure that a copy of the EPA acknowledgment of consent accompanies the shipment and shall ensure that it is delivered to the facility designated by the person initiating the shipment.

2. Scrap metal that is not excluded under s. NR 661.0004 (1) (m).

3. Fuels produced from the refining of oil-bearing hazardous waste along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum

refining, production, and transportation practices. This exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, where such recovered oil is already excluded under s. NR 661.0004 (1) (L).

4. Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under s. NR 679.11 and so long as no other hazardous wastes are used to produce the hazardous waste fuel.

5. Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under s. NR 679.11.

6. Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, in which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under s. NR 679.11.

(d) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements under chs. NR 660 to 668, but is regulated under ch. NR 679. Used oil that is recycled includes any used oil that is reused, following its original use, for any purpose, including the purpose for which the oil was originally used. This includes oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(e) Hazardous waste that is exported or imported for purpose of recovery is subject to the requirements under subch. H of ch. NR 662.

(2) Except as provided in sub. (1), generators and transporters of recyclable materials are subject to the applicable requirements specified in chs. NR 662 and 663 and the notification requirements under s. NR 660.07.

(3) (a) Except as provided in sub. (1), owners and operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of subchs. A to L, AA, BB, and CC of chs. NR 664 and 665, and under chs. NR 666 to 670 and the

notification requirements under s. NR 660.07. Except as provided in s. NR 661.0006 (4), the recycling process itself is exempt from regulation.

(b) Except as provided in sub. (1), owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to all of the following requirements:

1. Notification requirements under ss. NR 660.07

2. Sections 665.0071 and 665.0072 dealing with the use of the manifest and manifest discrepancies.

3. Subsection (4).

4. Section 665.0075 dealing with the annual reporting requirements.

(4) Owners or operators of facilities subject to s. 291.25, Stats., licensing requirements with hazardous waste management units that recycle hazardous wastes, are subject to the requirements specified in subchs. AA and BB of chs. NR 664, 665 or NR 667.

NR 661.0007 Residues of hazardous waste in empty containers. (1) (a) Any hazardous waste remaining in either an empty container or an inner liner removed from an empty container, as defined in sub. (2), is not subject to regulation under chs. NR 661 to 670, or to the notification requirements under s. NR 660.07.

(b) Any hazardous waste in either a container that is not empty or an inner liner removed from a container that is not empty, as defined in sub (2), is subject to regulation under chs. NR 661 to 670 and to the notification requirements under s. NR 670.07.

(2) (a) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in ss. NR 661.0031 or 661.0033 (5), is empty if subds. 1. and 2. or 3. are met:

1. All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, such as pouring, pumping, and aspirating.

2. No more than 2.5 centimeters, or one inch, of residue remain on the bottom of the container or inner liner.

3. One of the following:

a. No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size.

b. No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 119 gallons in size.

(b) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

(c) A container or an inner liner removed from a container that has held an acute hazardous waste listed in ss. NR 661.0031 or 661.0033 (5) is empty if any of the following are met:

1. The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate.

2. The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal.

3. In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

(3) Except as provided under s. NR 666.507(3) and (4), containers of hazardous waste pharmaceuticals are subject to s. NR 666.507 for determining when they are considered empty, in lieu of this section.

NR 661.0008 PCB wastes regulated under Toxic Substance Control Act. The disposal of PCB-containing dielectric fluid and electric equipment containing such fluid authorized for use and regulated under 40 CFR part 761 and that are hazardous only because they fail the test for the toxicity characteristic for hazardous waste codes D018 to D043 are exempt from regulation under chs. NR 661 to 665, 668 and 670, and the notification requirements under s. NR 660.07.

NR 661.0009 Requirements for universal waste, universal waste handlers, and universal waste transporters. Except as specified in ch. NR 673, the wastes listed in this section are exempt from regulation under chs. NR 662 to 667, 668.07, 668.50, and 670 and, therefore, are not fully regulated as hazardous waste. The wastes listed in this section are subject to regulation under ch. NR 673:

(1) Batteries as described in s. NR 673.02.

(2) Pesticides as described in s. NR 673.03.

(3) Mercury-containing equipment as described in s. NR 673.04.

(4) Lamps as described in s. NR 673.05.

Note: The additional language used in this section clarifies that LDR treatment standards apply to Universal Waste. This language is not more stringent that 40 CFR 261.9.

Subchapter B —Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Waste

NR 661.0010 Criteria for identifying the characteristics of hazardous waste. (1) The department shall identify and define a characteristic of hazardous waste under subch. C only upon determining that all of the following are met:

(a) A solid waste that exhibits the characteristic may do any of the following:

1. Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.

2. Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed.

(b) The characteristic can be any of the following:

1. Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste.

2. Reasonably detected by generators of solid waste through their knowledge of their waste.

NR 661.0011 Criteria for listing hazardous waste. (1) The department shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

(a) It exhibits any of the characteristics of hazardous waste identified in subch. C.

(b) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity measured in rats of

less than 50 milligrams per kilogram, an inhalation LC 50 toxicity measured in rats of less than 2 milligrams per liter, or a dermal LD 50 toxicity in rabbits of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. Waste listed in accordance with these criteria will be designated Acute Hazardous Waste.

(c) It contains any of the toxic constituents listed in ch. NR 661, Appendix VIII and, after considering the following factors, the department concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:

1. The nature of the toxicity presented by the constituent.

2. The concentration of the constituent in the waste.

3. The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in subd. 7.

4. The persistence of the constituent or any toxic degradation product of the constituent.

5. The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation.

6. The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

7. The plausible types of improper management to which the waste could be subjected.

8. The quantities of the waste generated at individual generation sites or on a regional or national basis.

9. The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.

10. Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.

11. Such other factors as may be appropriate. Substances will be listed under ch. NR 661, Appendix VIII only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms. Wastes listed in accordance with these criteria will be designated Toxic wastes.

(2) The department may list classes or types of solid waste as hazardous waste if the department has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in s. 291.01 (7), Stats.

(3) The department will use the criteria for listing specified in this section to establish the exclusion limits referred to in s. NR 662.013 (3).

Subchapter C — Characteristics of Hazardous Waste

NR 661.0020 General. (1) A solid waste, as defined in s. NR 661.0002, that is not excluded from regulation as a hazardous waste under s. NR 661.0004(2), is a hazardous waste if it exhibits any of the characteristics identified in this subchapter.

Note: Section NR 662.0011 sets forth the generator's responsibility to determine whether its waste exhibits one or more of the characteristics identified in this subchapter.

(2) A hazardous waste that is identified by a characteristic in this subchapter is assigned every EPA hazardous waste number that is applicable as set forth in this subchapter. This number shall be used in complying with the notification requirements under s. NR 660.07 and all applicable recordkeeping and reporting requirements under chs. NR 662 to 665, 668, and 670.

(3) For purposes of this subchapter, the department will consider a sample obtained using any of the applicable sampling methods specified in ch. NR 661, Appendix I to be a representative sample within the meaning specified in ch. NR 660.10 (101).

Note: Since ch. NR 661, Appendix I sampling methods are not being formally adopted by the department, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of the method under the procedures set forth in ss. NR 660.20 and 660.21.

NR 661.0021 Characteristic of ignitability. (1) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(a) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60 °C or 140 °F, as determined by a Pensky-Martens

Closed Cup Tester, using the test method specified in ASTM Standard D 93-79 or D 93-80, incorporated by reference in s. NR 660.11, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D 3278-78, incorporated by reference in s. NR 660.11.

(b) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(c) It is a flammable gas as defined in 49 CFR 173.115 (a) and as determined by the test methods described in that regulation or equivalent test methods approved by the department under ss. NR 660.20 and 660.21.

(d) It is an oxidizer as defined in 49 CFR 173.127 (a) and as determined by the test methods described in that regulation or equivalent test methods approved by the department under ss. NR 660.20 and 660.21.

(2) A solid waste that exhibits the characteristic of ignitability has the EPA hazardous waste number of D001.

NR 661.0022 Characteristic of corrosivity. (1) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(a) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in s. NR 660.11.

(b) It is a liquid and corrodes SAE 1020 steel at a rate greater than 6.35 mm per year at a test temperature of 55 °C as determined by Method 1110A in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, and as incorporated by reference in s. NR 660.11.

(2) A solid waste that exhibits the characteristic of corrosivity has the EPA hazardous waste number of D002.

NR 661.0023 Characteristic of reactivity. (1) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

(a) It is normally unstable and readily undergoes violent change without detonating.

(b) It reacts violently with water.

(c) It forms potentially explosive mixtures with water.

(d) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(e) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(f) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(g) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(h) It is a forbidden explosive as defined in 49 CFR 173.54, or is a Division 1.1, 1.2 or 1.3 explosive as defined in 49 CFR 173.50 and 173.53, incorporated by reference in Trans 326.01, Wis. Adm. Code.

(2) A solid waste that exhibits the characteristic of reactivity has the EPA hazardous waste number of D003.

NR 661.0024 Toxicity characteristic. (1) A solid waste, except manufactured gas plant waste, exhibits the characteristic of toxicity if, using the toxicity characteristic leaching procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in s. NR 660.11, the extract from a representative sample of the waste contains any of the contaminants listed in Table 2 at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of this section.

(2) A solid waste that exhibits the characteristic of toxicity has the EPA hazardous waste number specified in Table 1 which corresponds to the toxic contaminant causing it to be hazardous.

TABLE 1

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC

EPA HW No.[1]	Contaminant	CAS No.[2]	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	[3]200.0
D024	m-Cresol	108-39-4	[3]200.0
D025	p-Cresol	106-44-5	[3]200.0
D026	Cresol		[3]200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	[4]0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008

D032	Hexachlorobenzene	118-74-1	[4]0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	[4]5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

[1]Hazardous waste number.

[2]Chemical abstracts service number.

[3]If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol, D026, concentration is used. The regulatory level of total cresol is 200 mg/l.

[4]Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

Subchapter D — Lists of Hazardous Wastes

NR 661.0030 General. (1) A solid waste is a hazardous waste if it is listed in this subchapter, unless it has been excluded from this list under ss. NR 660.20 and 660.22.

(2) The department will indicate the department's basis for listing the classes or types of wastes listed in this subchapter by employing one or more of the following hazard codes:

Ignitable Waste	(I)
Corrosive Waste	(C)
Reactive Waste	(R)
Toxicity Characteristic Waste	(E)
Acute Hazardous Waste	(H)
Toxic Waste	(T)

Note: Chapter NR 661, Appendix VII identifies the constituent that caused the department to list the waste as a toxicity characteristic waste by the letter 'E' or toxic waste by the letter 'T' in ss. NR 661.0031 and 661.0032.

(3) Each hazardous waste listed in this subchapter is assigned an EPA hazardous waste number that precedes the name of the waste. This number shall be used in complying with the notification requirements under s. NR 660.07 and certain recordkeeping and reporting requirements under chs. NR 662 to 670.

(4) The following hazardous wastes listed in s. NR 661.0031 are subject to the exclusion limits for acutely hazardous wastes established in s. NR 662.013: EPA hazardous wastes numbers F020, F021, F022, F023, F026 and F027.

NR 661.0031 Hazardous wastes from non-specific sources. (1) LISTED HAZARDOUS WASTE FROM NON-SPECIFIC SOURCES. The following solid wastes are

listed hazardous wastes from non-specific sources unless they are excluded under ss. NR 660.20 and 660.22 and listed in 40 CFR part 261, appendix IX:

Industry and EPA hazardous waste number	**Hazardous waste**	**Hazard code**
Generic:		
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures or blends used in degreasing containing, before use, a total of 10 percent or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures or blends containing, before use, a total of 10 percent or more, by volume, of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures or blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of 10 percent or more, by volume, of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I)
F004	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures or blends containing, before use, a total of 10	(T)

	percent or more, by volume, of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	
F005	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures or blends containing, before use, a total of 10 percent or more, by volume, of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I, T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating, segregated basis, on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F007	Spent cyanide plating bath solutions from electroplating operations.	(R, T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	(R, T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R, T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	(R, T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R, T)
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such	(T)

	phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in s. NR 664.301 or s. NR 665.301. For the purposes of this listing, motor vehicle manufacturing is defined in sub. (2) (d) 1. and 2. describes the recordkeeping requirements for motor vehicle manufacturing facilities.	
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use, as a reactant, chemical intermediate, or component in a formulating process, of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.	(H)
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use, as a reactant, chemical intermediate, or component in a formulating process, of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use, as a reactant, chemical intermediate, or component in a formulating process, of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use, as a reactant, chemical intermediate, or component in a formulating process, of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.	(H)

F024	Process wastes, including distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including 5, with varying amounts and positions of chlorine substitution. This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in s. NR 661.0031 or s. NR 661.32.	(T)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including 5, with varying amounts and positions of chlorine substitution.	(T)
F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use, as a reactant, chemical intermediate, or component in a formulating process, of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. This listing does not include formulations containing Hexachlorophene sythesized from prepurified 2,4,5-trichlorophenol as the sole component.	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027.	(T)
F032	Wastewaters, except those that have not come into contact with process contaminants, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations, except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with s. NR 661.35 or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes, F034 or F035, and where the generator does not resume or initiate use of chlorophenolic formulations. This	(T)

	listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol.	
F034	Wastewaters, except those that have not come into contact with process contaminants, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol.	(T)
F035	Wastewaters, except those that have not come into contact with process contaminants, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol.	(T)
F037	Petroleum refinery primary oil or water or solids separation sludge—Any sludge generated from the gravitational separation of oil or water or solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include those generated in oil or water or solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in s. NR 661.0031 (2) (b), including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units, and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary material excluded under s. NR 661.0004 (1) (L) 1., if those residuals are to be disposed of.	(T)
F038	Petroleum refinery secondary, emulsified, oil or water or solids separation sludge—Any sludge or float generated from the physical or chemical separation of oil or water	(T)

	or solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include all sludges and floats generated in: induced air flotation or IAF units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in s. NR 661.0031 (2) (b), including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units, and F037, K048, and K051 wastes are not included in this listing.	
F039	Leachate, liquids that have percolated through land disposed wastes, resulting from the disposal of more than one restricted waste classified as hazardous under subchapter D. Leachate resulting from the disposal of one or more of the following EPA hazardous wastes and no other hazardous wastes retains its EPA hazardous waste numbers: F020, F021, F022, F026, F027, or F028.	(T)

(2) LISTING SPECIFIC DEFINITIONS: (a) For the purposes of the F037 and F038 listings, oil or water or solids is defined as any combination of oil, water, or solids.

(b) 1. For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following 4 treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and the units employ a minimum of 6 hp per million gallons of treatment volume; and either the hydraulic retention time of the unit is no longer than 5 days; or the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is a hazardous waste by the toxicity characteristic.

2. Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under subd.1. Generators and treatment, storage and disposal facilities shall maintain, in their operating or other onsite records, documents and data sufficient to prove that the unit is an aggressive biological treatment unit as

defined in this subsection; and the sludges sought to be exempted from the definitions of F037 or F038 were generated in the aggressive biological treatment unit.

(c) 1. For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.

2. For the purposes of the F038 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement and floats are considered to be generated at the moment they are formed in the top of the unit.

(d) For the purposes of the F019 listing, the following apply to wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process:

1. Motor vehicle manufacturing is defined to include the manufacture of automobiles and light trucks or utility vehicles, including light duty vans, pick-up trucks, minivans, and sport utility vehicles. Facilities shall be engaged in manufacturing complete vehicles, body and chassis or unibody, or chassis only.

2. A generator shall maintain in its on-site records documentation and information sufficient to prove that the wastewater treatment sludges to be exempted from the F019 listing meet the conditions of the listing. These records include all of the following: the volume of waste generated and disposed of off-site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. A generator shall maintain these documents on site for no less than 3 years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by the department.

NR 661.0032 Hazardous wastes from specific sources. (1) LISTED HAZARDOUS WASTES FROM SPECIFIC SOURCES. The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under ss. NR 660.20 and 660.22 and listed in 40 CFR part 261, appendix IX:

Industry and EPA hazardous waste number	**Hazardous waste**	**Hazard code**
Wood preservation:		
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophenol.	(T)
Inorganic pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated.	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments.	(T)
K008	Oven residue from the production of chrome oxide green pigments.	(T)
Organic chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)
K015	Still bottoms from the distillation of benzyl chloride.	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)

K017	Heavy ends, still bottoms, from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026	Stripping still tails from the production of methy ethyl pyridines.	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production.	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production.	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)

K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K103	Process residues from aniline extraction from the production of aniline.	(T)
K104	Combined wastewater streams generated from nitrobenzene or aniline production.	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine, UDMH, from carboxylic acid hydrazides.	(C, T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine, UDMH, from carboxylic acid hydrazides.	(I, T)
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine, UDMH, from carboxylic acid hydrazides.	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine, UDMH, from carboxylic acid hydrazides.	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.	(C, T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)

K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethane.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethane.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethane.	(T)
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. This waste does not include still bottoms from the distillation of benzyl chloride.	(T)
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K156	Organic waste, including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
K157	Wastewaters, including scrubber waters, condenser waters, washwaters, and separation waters, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
K158	Bag house dusts and filter or separation solids from the production of carbamates and carbamoyl oximes. This	(T)

	listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	
K159	Organics from the treatment of thiocarbamate wastes	(T)
K161	Purification solids, including filtration, evaporation, and centrifugation solids, bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. This listing does not include K125 or K126.	(R, T)
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer, including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater, unless the sludges are disposed of in a hazardous waste or non−hazardous waste landfill licensed or permitted by the state or federal government; they are not otherwise placed on the land prior to final disposal; and the generator maintains documentation demonstrating that the waste was either disposed of in an on−site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off−site landfill. Respondents in any action brought to enforce chs. NR 660 to 670 shall, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion in the previous sentence. In doing so, they shall provide appropriate documentation, such as contracts between the generator and the landfill owner or operator, invoices documenting delivery of waste to landfill, etc., that the terms of the exclusion were met.	(T)
K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process	(T)
K181	Nonwastewaters from the production of dyes or pigments, including nonwastewaters commingled at the point of generation with nonwastewaters from other processes, that, at the point of generation, contain mass loadings of any of the constituents identified in sub (3) that are equal to or greater than the corresponding sub. (3) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (1) disposed in a solid waste landfill unit subject to the design criteria in 40 CFR 258.40, (2) disposed in a hazardous waste landfill unit subject to either s. NR 664.0301 or 665.0301, (3) disposed	(T)

	in other solid waste landfill units that meet the design criteria in 40 CFR 258.40, s. NR 664.0301 or s. NR 665.0301, or (4) treated in a combustion unit that is licensed under s. 291.25, Stats., or an onsite combustion unit that is permitted under the Clean Air Act, 42 USC 7401 to 7671q or ch. 285, Wis. Stats. For the purposes of this listing, dyes or pigments production is defined in sub. (2) (a). Subsection (4) describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under ss. NR 661.0021 to 661.0024 and ss. NR 661.0031 to 661.0033 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met.	
Inorganic chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.	(T)
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates, such as antimony metal or crude antimony oxide.	(E)
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates, such as antimony metal or crude antimony oxide.	(T)
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.	(T)
Pesticides:		
K031	By-product salts generated in the production of MSMA and cacodylic acid.	(T)
K032	Wastewater treatment sludge from the production of chlordane.	(T)

K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote.	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
K037	Wastewater treatment sludges from the production of disulfoton.	(T)
K038	Wastewater from the washing and stripping of phorate production.	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040	Wastewater treatment sludge from the production of phorate.	(T)
K041	Wastewater treatment sludge from the production of toxaphene.	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K098	Untreated process wastewater from the production of toxaphene.	(T)
K099	Untreated wastewater from the production of 2,4-D.	(T)
K123	Process wastewater, including supernates, filtrates, and washwaters, from the production of ethylenebisdithiocarbamic acid and its salt.	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	(C, T)
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	(T)

K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	(C, T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations.	(R)
Petroleum refining:		
K048	Dissolved air flotation, DAF, float from the petroleum refining industry.	(T)
K049	Slop oil emulsion solids from the petroleum refining industry.	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	(T)
K051	API separator sludge from the petroleum refining industry.	(T)
K052	Leaded tank bottoms from the petroleum refining industry.	(T)
K169	Crude oil storage tank sediment from petroleum refining operations.	(T)
K170	Clarified slurry oil tank sediment or in-line filter/separation solids from petroleum refining operations.	(T)
K171	Spent Hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors. This listing does not include inert support media.	(I, T)
K172	Spent Hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors. This listing does not include inert support media.	(I, T)
Iron and steel:		

K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry, SIC Codes 331 and 332.	(C, T)
Primary aluminum:		
K088	Spent potliners from primary aluminum reduction.	(T)
Secondary lead:		
K069	Emission control dust/sludge from secondary lead smelting. This listing does not include sludge generated from secondary acid scrubber systems.	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)
Veterinary pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
Ink formulation:		
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	(T)
Coking:		
K060	Ammonia still lime sludge from coking operations.	(T)
K087	Decanter tank tar sludge from coking operations.	(T)
K141	Process residues from the recovery of coal tar, including collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from	(T)

	coal. This listing does not include K087, decanter tank tar sludges from coking operations.	
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal	(T)
K143	Process residues from the recovery of light oil, including those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	(T)
K144	Wastewater sump residues from light oil refining, including intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.	(T)
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	(T)
K147	Tar storage tank residues from coal tar refining.	(T)
K148	Residues from coal tar distillation, including still bottoms.	(T)

(2) LISTING SPECIFIC DEFINITIONS. (a) For the purposes of the K181 listing under sub (3), dyes or pigments production is defined to include manufacture of the following product classes: dyes, pigments, or FDA certified colors that are classified as azo, triarylmethane, perylene or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products. Wastes that are not generated at a dyes or pigments manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes or pigments, are not included in the K181 listing.

(3) K181 LISTING LEVELS. Nonwastewaters containing constituents in amounts equal to or exceeding the following levels during any calendar year are subject to the K181 listing, unless the conditions in the K181 listing are met.

Constituent	**Chemical abstracts number**	**Mass levels (kg/yr)**
Aniline	62-53-3	9,300

o-Anisidine	90-04-0	110
4-Chloroaniline	106-47-8	4,800
p-Cresidine	120-71-8	660
2,4-Dimethylaniline	95-68-1	100
1,2-Phenylenediamine	95-54-5	710
1,3-Phenylenediamine	108-45-2	1,200

(4) PROCEDURES FOR DEMONSTRATING THAT DYES OR PIGMENT NONWASTEWATERS ARE NOT K181. The procedures described in pars. (a) to (c) and (e) establish when nonwastewaters from the production of dyes or pigments would not be hazardous. These procedures apply to wastes that are not disposed in landfill units or treated in combustion units as specified in sub. (1). If the nonwastewaters are disposed in landfill units or treated in combustion units as described in sub. (1), then the nonwastewaters are not hazardous. In order to demonstrate that it is meeting the landfill disposal or combustion conditions contained in the K181 listing description, the generator shall maintain documentation as described in par. (d).

(a) *Determination based on no K181 constituents*. A generator that has knowledge, such as knowledge of constituents in wastes based on prior sampling and analysis data or information about raw materials used, production processes used, and reaction and degradation products formed, that its wastes contain none of the K181 constituents listed in sub. (3) can use its knowledge to determine that its waste is not K181. The generator shall document the basis for all such determinations on an annual basis and keep each annual documentation for 3 years.

(b) *Determination for generated quantities of 1,000 metric tons a year or less for wastes that contain K181 constituents*. If the total annual quantity of dyes or pigment nonwastewaters generated is 1,000 metric tons or less, the generator can use knowledge of the wastes, such as knowledge of constituents in wastes based on prior analytical data or information about raw materials used, production processes used, and reaction and degradation products formed, to conclude that annual mass loadings for the K181 constituents are below the listing levels of sub. (3). To make this determination, the generator shall do all of the following:

1. Each year document the basis for determining that the annual quantity of nonwastewaters expected to be generated will be less than 1,000 metric tons.

2. Track the actual quantity of nonwastewaters generated from January 1 through December 31 of each year. If, at any time within the year, the actual waste quantity exceeds 1,000 metric tons, the generator shall comply with the requirements under par. (c) for the remainder of the year.

3. Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

4. Keep all of the following records on-site for the 3 most recent calendar years in which the hazardous waste determinations are made:

a. The quantity of dyes or pigment nonwastewaters generated.

b. The relevant process information used.

c. The calculations performed to determine annual total mass loadings for each K181 constituent in the nonwastewaters during the year.

(c) *Determination for generated quantities greater than 1,000 metric tons a year for wastes that contain K181 constituents.* If the total annual quantity of dyes or pigment nonwastewaters generated is greater than 1,000 metric tons, the generator shall perform all of the following steps in order to make a determination that its waste is not K181:

1. Determine which K181 constituents listed in sub. (3) are reasonably expected to be present in the wastes based on knowledge of the wastes, such as based on prior sampling and analysis data or information about raw materials used, production processes used, and reaction and degradation products formed.

2. If 1,2-phenylenediamine is present in the wastes, the generator can use either knowledge or sampling and analysis procedures to determine the level of this constituent in the wastes. For determinations based on use of knowledge, the generator shall comply with the procedures for using knowledge described in par. (b) and keep the records described in par. (b) 4. For determinations based on sampling and analysis, the generator shall comply with all of the sampling and analysis and recordkeeping requirements in subds. 3 to 11.

3. Develop a waste sampling and analysis plan or modify an existing plan to collect and analyze representative waste samples for the K181 constituents reasonably expected to be present in the wastes. At a minimum, the plan shall include all of the following:

a. A discussion of the number of samples needed to characterize the wastes fully.

b. The planned sample collection method to obtain representative waste samples.

c. A discussion of how the sampling plan accounts for potential temporal and spatial variability of the wastes.

d. A detailed description of the test methods to be used, including sample preparation, clean up, if necessary, and determinative methods.

4. Collect and analyze samples in accordance with the waste sampling and analysis plan.

a. The sampling and analysis shall be unbiased, precise, and representative of the wastes.

b. The analytical measurements shall be sufficiently sensitive, accurate and precise to support any claim that the constituent mass loadings are below the listing levels of sub. (3).

5. Record the analytical results.

6. Record the waste quantity represented by the sampling and analysis results.

7. Calculate constituent-specific mass loadings, product of concentrations and waste quantity.

8. Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

9. Determine whether the mass of any of the K181 constituents listed in sub. (3) generated between January 1 and December 31 of any year is below the K181 listing levels.

10. Keep all of the following records on site for the 3 most recent calendar years in which the hazardous waste determinations are made:

a. The sampling and analysis plan.

b. The sampling and analysis results, including QA/QC data.

c. The quantity of dyes or pigment nonwastewaters generated.

d. The calculations performed to determine annual mass loadings.

11. Nonhazardous waste determinations shall be conducted annually to verify that the wastes remain nonhazardous.

a. The annual testing requirements are suspended after 3 consecutive successful annual demonstrations that the wastes are nonhazardous. The generator can then use knowledge of the wastes to support subsequent annual determinations.

b. The annual testing requirements are reinstated if the manufacturing or waste treatment processes generating the wastes are significantly altered, resulting in an increase of the potential for the wastes to exceed the listing levels.

c. If the annual testing requirements are suspended, the generator shall keep records of the process knowledge information used to support a nonhazardous determination. If testing is reinstated, a description of the process change shall be retained.

(d) *Recordkeeping for the landfill disposal and combustion exemptions*. For the purposes of meeting the landfill disposal and combustion condition set out in the K181 listing description, the generator shall maintain on site for 3 years documentation demonstrating that each shipment of waste was received by a landfill unit that is subject to or meets the landfill design standards set out in the listing description, or was treated in combustion units as specified in the listing description.

(e) *Waste holding and handling*. During the interim period, from the point of generation to completion of the hazardous waste determination, the generator is responsible for storing the wastes appropriately. If the wastes are determined to be hazardous and the generator has not complied with the hazardous waste requirements during the interim period, the generator may be subject to an enforcement action for improper management.

NR 661.0033 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof. All of the following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in s. NR 661.0002 (1) (b) 1., when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as, or as a component of, a fuel, distributed for use as a fuel, or burned as a fuel.

(1) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in sub. (5) or (6).

(2) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in sub. (5) or (6).

(3) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in sub. (5) or (6), unless the container is empty as defined in s. NR 661.0007 (2) or s. NR 666.507.

Note: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, the department considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.

(4) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in sub. (5) or (6), or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in sub. (5) or (6).

Note: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in..." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in sub. (5) or (6). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in sub. (5) or (6), such waste will be listed in either s. NR 661.0031 or s. NR 661.0032 or will be identified as a hazardous waste by the characteristics set forth in subch. C.

(5) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in subs. (1) to (4), are identified as acute hazardous wastes (H).

Note: For convenience, the primary hazardous properties of these materials have been indicated by the letters 'T' for toxicity, and 'R' for reactivity. Absence of a letter indicates that the compound only is listed for acute toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by EPA hazardous waste number.

These wastes and their corresponding EPA hazardous waste numbers are:

Alphabetical List		
Hazardous waste number	**Chemical abstracts number**	**Substance**
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R, T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H3 AsO4
P012	1327-53-3	Arsenic oxide As2 O3
P011	1303-28-2	Arsenic oxide As2 O5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide

P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1)
P001	181-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN)2
P189	55285-14-8	Carbamic acid, [(dibutylamino)- thio]methyl-, 2,3-dihydro-2,2-dimethyl- 7-benzofuranyl ester
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl-1H- pyrazol-3-yl ester

P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H-pyrazol-5-yl ester
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester
P127	1563-66-2	Carbofuran
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P202	64-00-6	m-Cumenyl methylcarbamate
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-

P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)-
P051	172-20-8	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P191	644-64-4	Dimetilan.
P047	1534-52-1	4,6-Dinitro-o-cresol, & salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	66419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)- carbonyl]oxime.
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester
P066	16752-77-5	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine

P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride
P197	17702-57-7	Formparanate
P065	628-86-4	Fulminic acid, mercury(2 +) salt (R, T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P192	119-38-0	Isolan
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate.
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S′)-,
P196	15339-36-3	Manganese dimethyldithiocarbamate.
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R, T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N′-[3-[[(methylamino)-carbonyl]oxy]phenyl]-, monohydrochloride.
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N′-[2-methyl-4-[[(methylamino)carbonyl]oxy]phenyl]-
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide

P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P199	2032-65-7	Methiocarb
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methyllactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb
P128	315-8-4	Mexacarbate
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl Ni(CO)4, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide Ni(CN)2
P075	[1]54-11-5	Nicotine, & salts. This listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies.
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO2
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl

P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51-28-5	Phenol, 2,4-dinitro-
P047	1534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester).
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate.
P201	6631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate.
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine

P188	57-64-7	Physostigmine salicylate
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Potassium silver cyanide
P201	6631-37-0	Promecarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime.
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	[1]54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts. This listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies.
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-.
P114	12039-52-0	Selenious acid, dithallium(1 +) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)

P105	66628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	157-24-9	Strychnidin-10-one, & salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	157-24-9	Strychnine, & salts
P115	7446-18-6	Sulfuric acid, dithallium(1 +) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl2 O3
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide [(H2 N)C(S)]2 NH
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P185	66419-73-8	Tirpate.
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V2 O5
P120	1314-62-1	Vanadium pentoxide

P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	181-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S′)-,
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN)2
P122	1314-84-7	Zinc phosphide Zn3 P2, when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram
Numerical List		
Hazardous waste number	**Chemical abstracts number**	**Substance**
P001	181-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P001	181-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P002	591-08-2	Acetamide, -(aminothioxomethyl)-
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P003	107-02-8	2-Propenal
P004	309-00-2	Aldrin
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P005	107-18-6	Allyl alcohol
P005	107-18-6	2-Propen-1-ol
P006	20859-73-8	Aluminum phosphide (R, T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P008	504-24-5	4-Aminopyridine
P008	504-24-5	4-Pyridinamine

P009	131-74-8	Ammonium picrate (R)
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P010	7778-39-4	Arsenic acid H3 AsO4
P011	1303-28-2	Arsenic oxide As2 O5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic oxide As2 O3
P012	1327-53-3	Arsenic trioxide
P013	542-62-1	Barium cyanide
P014	108-98-5	Benzenethiol
P014	108-98-5	Thiophenol
P015	7440-41-7	Beryllium powder
P016	542-88-1	Dichloromethyl ether
P016	542-88-1	Methane, oxybis[chloro-
P017	598-31-2	Bromoacetone
P017	598-31-2	2-Propanone, 1-bromo-
P018	357-57-3	Brucine
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P020	88-85-7	Dinoseb
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN)2
P022	75-15-0	Carbon disulfide
P023	107-20-0	Acetaldehyde, chloro-
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	Benzenamine, 4-chloro-
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P027	542-76-7	3-Chloropropionitrile
P027	542-76-7	Propanenitrile, 3-chloro-

P028	100-44-7	Benzene, (chloromethyl)-
P028	100-44-7	Benzyl chloride
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P031	460-19-5	Ethanedinitrile
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P036	696-28-6	Arsonous dichloride, phenyl-
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)-
P038	692-42-2	Arsine, diethyl-
P038	692-42-2	Diethylarsine
P039	298-04-4	Disulfoton
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P042	51-43-4	Epinephrine
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester

P044	60-51-5	Dimethoate
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methyl amino)-2-oxoethyl] ester
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime
P045	39196-18-4	Thiofanox
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P047	1534-52-1	4,6-Dinitro-o-cresol, & salts
P047	1534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P048	51-28-5	2,4-Dinitrophenol
P048	51-28-5	Phenol, 2,4-dinitro-
P049	541-53-7	Dithiobiuret
P049	541-53-7	Thioimidodicarbonic diamide [(H2 N)C(S)]2 NH
P050	115-29-7	Endosulfan
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
P051	172-20-8	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P054	151-56-4	Aziridine
P054	151-56-4	Ethyleneimine
P056	7782-41-4	Fluorine
P057	640-19-7	Acetamide, 2-fluoro-
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P058	62-74-8	Fluoroacetic acid, sodium salt
P059	76-44-8	Heptachlor

P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P060	465-73-6	Isodrin
P062	757-58-4	Hexaethyl tetraphosphate
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P064	624-83-9	Methane, isocyanato-
P064	624-83-9	Methyl isocyanate
P065	628-86-4	Fulminic acid, mercury(2 +) salt (R, T)
P065	628-86-4	Mercury fulminate (R, T)
P066	16752-77-5	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester
P066	16752-77-5	Methomyl
P067	75-55-8	Aziridine, 2-methyl-
P067	75-55-8	1,2-Propylenimine
P068	60-34-4	Hydrazine, methyl-
P068	60-34-4	Methyl hydrazine
P069	75-86-5	2-Methyllactonitrile
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P070	116-06-3	Aldicarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P071	298-00-0	Methyl parathion
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P072	86-88-4	alpha-Naphthylthiourea
P072	86-88-4	Thiourea, 1-naphthalenyl-
P073	13463-39-3	Nickel carbonyl

P073	13463-39-3	Nickel carbonyl Ni(CO)4, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide Ni(CN)2
P075	[1]54-11-5	Nicotine, & salts. This listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies.
P075	[1]54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts. This listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies.
P076	10102-43-9	Nitric oxide
P076	10102-43-9	Nitrogen oxide NO
P077	100-01-6	Benzenamine, 4-nitro-
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P078	10102-44-0	Nitrogen oxide NO2
P081	55-63-0	Nitroglycerine (R)
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P082	62-75-9	Methanamine, -methyl-N-nitroso-
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P084	4549-40-0	Vinylamine, -methyl-N-nitroso-
P085	152-16-9	Diphosphoramide, octamethyl-
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	Endothall
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P089	56-38-2	Parathion
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P092	62-38-4	Mercury, (acetato-O)phenyl-
P092	62-38-4	Phenylmercury acetate

P093	103-85-5	Phenylthiourea
P093	103-85-5	Thiourea, phenyl-
P094	298-02-2	Phorate
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P095	75-44-5	Carbonic dichloride
P095	75-44-5	Phosgene
P096	7803-51-2	Hydrogen phosphide
P096	7803-51-2	Phosphine
P097	52-85-7	Famphur
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P099	506-61-6	Potassium silver cyanide
P101	107-12-0	Ethyl cyanide
P101	107-12-0	Propanenitrile
P102	107-19-7	Propargyl alcohol
P102	107-19-7	2-Propyn-1-ol
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	66628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	1157-24-9	Strychnidin-10-one, & salts
P108	1157-24-9	Strychnine, & salts
P109	3689-24-5	Tetraethyldithiopyrophosphate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P110	78-00-2	Plumbane, tetraethyl-

P110	78-00-2	Tetraethyl lead
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Methane, tetranitro-(R)
P112	509-14-8	Tetranitromethane (R)
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl2 O3
P114	12039-52-0	Selenious acid, dithallium(1 +) salt
P114	12039-52-0	Tetraethyldithiopyrophosphate
P115	7446-18-6	Thiodiphosphoric acid, tetraethyl ester
P115	7446-18-6	Plumbane, tetraethyl-
P116	79-19-6	Tetraethyl lead
P116	79-19-6	Thiosemicarbazide
P118	75-70-7	Methanethiol, trichloro-
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Ammonium vanadate
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V2O5
P120	1314-62-1	Vanadium pentoxide
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN)2
P122	1314-84-7	Zinc phosphide Zn3 P2, when present at concentrations greater than 10% (R, T)
P123	8001-35-2	Toxaphene
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.
P127	1563-66-2	Carbofuran
P128	315-8-4	Mexacarbate
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)

P185	66419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)-carbonyl]oxime.
P185	66419-73-8	Tirpate
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1)
P188	57-64-7	Physostigmine salicylate
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P189	55285-14-8	Carbosulfan
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester
P190	1129-41-5	Metolcarb
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester
P191	644-64-4	Dimetilan
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester
P192	119-38-0	Isolan
P194	23135-22-0	Ethanimidthioic acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester
P194	23135-22-0	Oxamyl
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S′)-,
P196	15339-36-3	Manganese dimethyldithiocarbamate
P197	17702-57-7	Formparanate
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N′-[2-methyl-4-[[(methylamino)carbonyl]oxy]phenyl]-
P198	23422-53-9	Formetanate hydrochloride
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N′-[3-[[(methylamino)-carbonyl]oxy]phenyl]-monohydrochloride
P199	2032-65-7	Methiocarb
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P201	6631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P201	6631-37-0	Promecarb

P202	64-00-6	m-Cumenyl methylcarbamate
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
P203	1646-88-4	Aldicarb sulfone
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime
P204	57-47-6	Physostigmine
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S′)-,
P205	137-30-4	Ziram

[1]CAS Number given for parent compound only.

(6) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in subs. (1) to (4), are identified as toxic wastes (T) unless otherwise designated.

Note: For convenience, the primary hazardous properties of these materials have been indicated by the letters ‘T’ for toxicity, ‘R’ for reactivity, ‘I’ for ignitability and ‘C’ for corrosivity. Absence of a letter indicates that the compound is only listed for toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by EPA hazardous waste number.

These wastes and their corresponding EPA hazardous waste numbers are:

Alphabetical List		
Hazardous waste number	**Chemical abstracts number**	**Substance**
U394	30558-43-1	A2213
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-

U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	194-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112	141-78-6	Acetic acid ethyl ester (I)
U144	301-04-2	Acetic acid, lead(2 +) salt
U214	563-68-8	Acetic acid, thallium(1 +) salt
see F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I, T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C, R, T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I, T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2′,3′:3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-

		1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-
U280	101-27-9	Barban
U278	22781-23-3	Bendiocarb
U364	22961-82-6	Bendiocarb phenol
U271	17804-35-2	Benomyl
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I, T)
U014	492-80-8	Benzenamine, 4,4′-carbonimidoylbis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4′-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride

U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I, T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1′-(2,2-dichloroethylidene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	66471-62-5	Benzene, 1,3-diisocyanatomethyl- (R, T)
U239	1330-20-7	Benzene, dimethyl- (I)

U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C, R)
U020	98-09-9	Benzenesulfonyl chloride (C, R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis[4-methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.

U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U064	189-55-9	Benzo[rst]pentaphene
U248	181-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[a]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C, R,T)
U085	1464-53-5	2,2′-Bioxirane
U021	92-87-5	[1,1′-Biphenyl]-4,4′-diamine
U073	91-94-1	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dichloro-
U091	119-90-4	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dimethoxy-
U095	119-93-7	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)

U159	78-93-3	2-Butanone (I, T)
U160	1338-23-4	2-Butanone, peroxide (R, T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I, T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester.
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester.
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester.
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester.
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester.
U097	79-44-7	Carbamic chloride, dimethyl-

U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester.
U114	1111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U679	63-25-2	Carbaryl
U372	10605-21-7	Carbendazim
U367	1563-38-8	Carbofuran phenol
U215	6533-73-9	Carbonic acid, dithallium(1 +) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I, T)
U033	353-50-4	Carbon oxyfluoride (R, T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol

U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H2 CrO4, calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	194-75-7	2,4-D, salts & esters

U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3′-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I, T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol

U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I, T)
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U395	5952-26-1	Diethylene glycol, dicarbamate.
U086	1615-80-1	N,N′-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3′-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3′-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate

U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U404	121-44-8	Ethanamine, N,N-diethyl-
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1′-[methylenebis(oxy)]bis[2-chloro-
U117	60-29-7	Ethane, 1,1′-oxybis-(I)
U025	111-44-4	Ethane, 1,1′-oxybis[2-chloro-

U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N′-[thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester.
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2′-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2′-oxybis-, dicarbamate.
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)

U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (I)
U114	1111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I, T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C, T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro-(I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)

U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N′-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R, T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C, T)
U134	7664-39-3	Hydrogen fluoride (C, T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H2 S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)

U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I, T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I, T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-

U045	74-87-3	Methane, chloro- (I, T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I, T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)

U045	74-87-3	Methyl chloride (I, T)
U156	79-22-1	Methyl chlorocarbonate (I, T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4′-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I, T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R, T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I, T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine, N,N′-bis(2-chloroethyl)-

U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3′-[(3,3′-dimethyl[1,1′-biphenyl]-4,4′-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U679	63-25-2	1-Naphthalenol, methylcarbamate.
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1 +) salt
U169	98-95-3	Nitrobenzene (I, T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I, T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine

U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U082	123−63−7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4′-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-

U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2′-methylenebis[3,4,6-trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate.
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead(2 +) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I, T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)

U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I, T)
U027	108-60-1	Propane, 2,2′-oxybis[2-chloro-
U193	1120-71-4	1,3-Propane sultone
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I, T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I, T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I, T)
U373	122-42-9	Propham.
U411	114-26-1	Propoxur.

U387	52888-80-9	Prosulfocarb.
U194	107-10-8	n-Propylamine (I, T)
U083	78-87-5	Propylene dichloride
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS2 (R, T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester

U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	thallium chloride TlCl
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb.
U153	74-93-1	Thiomethanol (I, T)
U244	137-26-8	Thioperoxydicarbonic diamide [(H2 N)C(S)]2 S2, tetramethyl-
U409	23564-05-8	Thiophanate-methyl.
U219	62-56-6	Thiourea
U244	137-26-8	Thiram

U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	66471-62-5	Toluene diisocyanate (R, T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate.
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine.
U234	99-35-4	1,3,5-Trinitrobenzene (R, T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil shallard
U176	759-73-9	Urea, N-ethyl-N-nitroso-

U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	181-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
U249	1314-84-7	Zinc phosphide Zn3 P2, when present at concentrations of 10% or less
Numerical List		
Hazardous waste number	**Chemical abstracts number**	**Substance**
U001	75-07-0	Acetaldehyde (I)
U001	75-07-0	Ethanal (I)
U002	67-64-1	Acetone (I)
U002	67-64-1	2-Propanone (I)
U003	75-05-8	Acetonitrile (I, T)
U004	98-86-2	Acetophenone
U004	98-86-2	Ethanone, 1-phenyl-
U005	53-96-3	Acetamide, -9H-fluoren-2-yl-
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C, R, T)

U007	79-06-1	Acrylamide
U007	79-06-1	2-Propenamide
U008	79-10-7	Acrylic acid (I)
U008	79-10-7	2-Propenoic acid (I)
U009	107-13-1	Acrylonitrile
U009	107-13-1	2-Propenenitrile
U010	50-07-7	Azirino[2′,3′:3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-
U010	50-07-7	Mitomycin C
U011	61-82-5	Amitrole
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U012	62-53-3	Aniline (I, T)
U012	62-53-3	Benzenamine (I, T)
U014	492-80-8	Auramine
U014	492-80-8	Benzenamine, 4,4′-carbonimidoylbis[N,N-dimethyl-
U015	115-02-6	Azaserine
U015	115-02-6	L-Serine, diazoacetate (ester)
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U017	98-87-3	Benzene, (dichloromethyl)-

U018	56-55-3	Benz[a]anthracene
U019	71-43-2	Benzene (I, T)
U020	98-09-9	Benzenesulfonic acid chloride (C, R)
U020	98-09-9	Benzenesulfonyl chloride (C, R)
U021	92-87-5	Benzidine
U021	92-87-5	[1,1′-Biphenyl]-4,4′-diamine
U022	50-32-8	Benzo[a]pyrene
U023	98-07-7	Benzene, (trichloromethyl)-
U023	98-07-7	Benzotrichloride (C, R, T)
U024	111-91-1	Dichloromethoxy ethane
U024	111-91-1	Ethane, 1,1′-[methylenebis(oxy)]bis[2-chloro-
U025	111-44-4	Dichloroethyl ether
U025	111-44-4	Ethane, 1,1′-oxybis[2-chloro-
U026	494-03-1	Chlornaphazin
U026	494-03-1	Naphthalenamine, N,N′-bis(2-chloroethyl)-
U027	108-60-1	Dichloroisopropyl ether
U027	108-60-1	Propane, 2,2′-oxybis[2-chloro-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U028	117-81-7	Diethylhexyl phthalate
U029	74-83-9	Methane, bromo-

U029	74-83-9	Methyl bromide
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U030	101-55-3	4-Bromophenyl phenyl ether
U031	71-36-3	1-Butanol (I)
U031	71-36-3	n-Butyl alcohol (I)
U032	13765-19-0	Calcium chromate
U032	13765-19-0	Chromic acid H2 CrO4, calcium salt
U033	353-50-4	Carbonic difluoride
U033	353-50-4	Carbon oxyfluoride (R, T)
U034	75-87-6	Acetaldehyde, trichloro-
U034	75-87-6	Chloral
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U037	108-90-7	Benzene, chloro-
U037	108-90-7	Chlorobenzene
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U038	510-15-6	Chlorobenzilate

U039	59-50-7	p-Chloro-m-cresol
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U041	106-89-8	Epichlorohydrin
U041	106-89-8	Oxirane, (chloromethyl)-
U042	110-75-8	2-Chloroethyl vinyl ether
U042	110-75-8	Ethene, (2-chloroethoxy)-
U043	75-01-4	Ethene, chloro-
U043	75-01-4	Vinyl chloride
U044	67-66-3	Chloroform
U044	67-66-3	Methane, trichloro-
U045	74-87-3	Methane, chloro- (I, T)
U045	74-87-3	Methyl chloride (I, T)
U046	107-30-2	Chloromethyl methyl ether
U046	107-30-2	Methane, chloromethoxy-
U047	91-58-7	beta-Chloronaphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U048	95-57-8	o-Chlorophenol
U048	95-57-8	Phenol, 2-chloro-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U050	218-01-9	Chrysene

U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U052	1319-77-3	Phenol, methyl-
U053	4170-30-3	2-Butenal
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Benzene, (1-methylethyl)-(I)
U055	98-82-8	Cumene (I)
U056	110-82-7	Benzene, hexahydro-(I)
U056	110-82-7	Cyclohexane (I)
U057	108-94-1	Cyclohexanone (I)
U058	50-18-0	Cyclophosphamide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U059	20830-81-3	Daunomycin
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U060	72-54-8	Benzene, 1,1′-(2,2-dichloroethylidene)bis[4-chloro-
U060	72-54-8	DDD
U061	50-29-3	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis[4-chloro-
U061	50-29-3	DDT

U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Benzo[rst]pentaphene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U067	106-93-4	Ethane, 1,2-dibromo-
U067	106-93-4	Ethylene dibromide
U068	74-95-3	Methane, dibromo-
U068	74-95-3	Methylene bromide
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	Benzene, 1,2-dichloro-
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	Benzene, 1,3-dichloro-
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	Benzene, 1,4-dichloro-
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dichloro-

U073	91-94-1	3,3′-Dichlorobenzidine
U074	764-41-0	2-Butene, 1,4-dichloro-(I, T)
U074	764-41-0	1,4-Dichloro-2-butene (I, T)
U075	75-71-8	Dichlorodifluoromethane
U075	75-71-8	Methane, dichlorodifluoro-
U076	75-34-3	Ethane, 1,1-dichloro-
U076	75-34-3	Ethylidene dichloride
U077	107-06-2	Ethane, 1,2-dichloro-
U077	107-06-2	Ethylene dichloride
U078	75-35-4	1,1-Dichloroethylene
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	1,2-Dichloroethylene
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U080	75-09-2	Methane, dichloro-
U080	75-09-2	Methylene chloride
U081	120-83-2	2,4-Dichlorophenol
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	2,6-Dichlorophenol
U082	87-65-0	Phenol, 2,6-dichloro-
U083	78-87-5	Propane, 1,2-dichloro-
U083	78-87-5	Propylene dichloride

U084	542-75-6	1,3-Dichloropropene
U084	542-75-6	1-Propene, 1,3-dichloro-
U085	1464-53-5	2,2′-Bioxirane
U085	1464-53-5	1,2:3,4-Diepoxybutane (I, T)
U086	1615-80-1	N,N′-Diethylhydrazine
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U089	56-53-1	Phenol, 4,4′-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U090	94-58-6	Dihydrosafrole
U091	119-90-4	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dimethoxy-
U091	119-90-4	3,3′-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U092	124-40-3	Methanamine, -methyl-(I)
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U093	60-11-7	p-Dimethylaminoazobenzene

U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dimethyl-
U095	119-93-7	3,3′-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U097	79-44-7	Carbamic chloride, dimethyl-
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	1,2-Dimethylhydrazine
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U101	105-67-9	2,4-Dimethylphenol
U101	105-67-9	Phenol, 2,4-dimethyl-
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U103	77-78-1	Sulfuric acid, dimethyl ester
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-

U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Diethyleneoxide
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U110	142-84-7	Dipropylamine (I)
U110	142-84-7	1-Propanamine, N-propyl-(I)
U111	621-64-7	Di-n-propylnitrosamine
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U112	141-78-6	Acetic acid ethyl ester (I)
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U114	1111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U114	1111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U115	75-21-8	Ethylene oxide (I, T)
U115	75-21-8	Oxirane (I, T)
U116	96-45-7	Ethylenethiourea

U116	96-45-7	2-Imidazolidinethione
U117	60-29-7	Ethane, 1,1′-oxybis-(I)
U117	60-29-7	Ethyl ether (I)
U118	97-63-2	Ethyl methacrylate
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U119	62-50-0	Ethyl methanesulfonate
U119	62-50-0	Methanesulfonic acid, ethyl ester
U120	206-44-0	Fluoranthene
U121	75-69-4	Methane, trichlorofluoro-
U121	75-69-4	Trichloromonofluoromethane
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C, T)
U124	110-00-9	Furan (I)
U124	110-00-9	Furfuran (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U125	98-01-1	Furfural (I)
U126	765-34-4	Glycidylaldehyde
U126	765-34-4	Oxiranecarboxyaldehyde
U127	118-74-1	Benzene, hexachloro-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-

U128	87-68-3	Hexachlorobutadiene
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U129	58-89-9	Lindane
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Ethane, hexachloro-
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U132	70-30-4	Phenol, 2,2′-methylenebis[3,4,6-trichloro-
U133	302-01-2	Hydrazine (R, T)
U134	7664-39-3	Hydrofluoric acid (C, T)
U134	7664-39-3	Hydrogen fluoride (C, T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H2S
U136	75-60-5	Arsinic acid, dimethyl-
U136	75-60-5	Cacodylic acid
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U138	74-88-4	Methane, iodo-
U138	74-88-4	Methyl iodide
U140	78-83-1	Isobutyl alcohol (I, T)

U140	78-83-1	1-Propanol, 2-methyl- (I, T)
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U143	303-34-4	Lasiocarpine
U144	301-04-2	Acetic acid, lead(2 +) salt
U144	301-04-2	Lead acetate
U145	7446-27-7	Lead phosphate
U145	7446-27-7	Phosphoric acid, lead(2 +) salt (2:3)
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U146	1335-32-6	Lead subacetate
U147	108-31-6	2,5-Furandione
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U149	109-77-3	Malononitrile
U149	109-77-3	Propanedinitrile

U150	148-82-3	Melphalan
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I, T)
U152	126-98-7	2-Propenenitrile, 2-methyl- (I, T)
U153	74-93-1	Methanethiol (I, T)
U153	74-93-1	Thiomethanol (I, T)
U154	67-56-1	Methanol (I)
U154	67-56-1	Methyl alcohol (I)
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)-
U155	91-80-5	Methapyrilene
U156	79-22-1	Carbonochloridic acid, methyl ester (I, T)
U156	79-22-1	Methyl chlorocarbonate (I, T)
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	Benzenamine, 4,4′-methylenebis[2-chloro-
U158	101-14-4	4,4′-Methylenebis(2-chloroaniline)
U159	78-93-3	2-Butanone (I, T)
U159	78-93-3	Methyl ethyl ketone (MEK) (I, T)
U160	1338-23-4	2-Butanone, peroxide (R, T)

U160	1338-23-4	Methyl ethyl ketone peroxide (R, T)
U161	108-10-1	Methyl isobutyl ketone (I)
U161	108-10-1	4-Methyl-2-pentanone (I)
U161	108-10-1	Pentanol, 4-methyl-
U162	80-62-6	Methyl methacrylate (I, T)
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I, T)
U163	70-25-7	Guanidine, -methyl-N'-nitro-N-nitroso-
U163	70-25-7	MNNG
U164	56-04-2	Methylthiouracil
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U165	91-20-3	Naphthalene
U166	130-15-4	1,4-Naphthalenedione
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	1-Naphthalenamine
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	2-Naphthalenamine
U168	91-59-8	beta-Naphthylamine
U169	98-95-3	Benzene, nitro-
U169	98-95-3	Nitrobenzene (I, T)
U170	100-02-7	p-Nitrophenol

U170	100-02-7	Phenol, 4-nitro-
U171	79-46-9	2-Nitropropane (I, T)
U171	79-46-9	Propane, 2-nitro- (I, T)
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	Ethanol, 2,2′-(nitrosoimino)bis-
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	Ethanamine, -ethyl-N-nitroso-
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	N-Nitroso-N-methylurea
U177	684-93-5	Urea, N-methyl-N-nitroso-
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U179	100-75-4	Piperidine, 1-nitroso-
U180	930-55-2	N-Nitrosopyrrolidine
U180	930-55-2	Pyrrolidine, 1-nitroso-
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U181	99-55-8	5-Nitro-o-toluidine

U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U182	123-63-7	Paraldehyde
U183	608-93-5	Benzene, pentachloro-
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Ethane, pentachloro-
U184	76-01-7	Pentachloroethane
U185	82-68-8	Benzene, pentachloronitro-
U185	82-68-8	Pentachloronitrobenzene (PCNB)
U186	504-60-9	1-Methylbutadiene (I)
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Acetamide, -(4-ethoxyphenyl)-
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U189	1314-80-3	Phosphorus sulfide (R)
U189	1314-80-3	Sulfur phosphide (R)
U190	85-44-9	1,3-Isobenzofurandione
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U191	109-06-8	Pyridine, 2-methyl-
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-

U192	23950-58-5	Pronamide
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U193	1120-71-4	1,3-Propane sultone
U194	107-10-8	1-Propanamine (I, T)
U194	107-10-8	n-Propylamine (I, T)
U196	110-86-1	Pyridine
U197	106-51-4	p-Benzoquinone
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U200	50-55-5	Reserpine
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester,(3beta,16beta,17alpha,18beta,20alpha)-
U201	108-46-3	1,3-Benzenediol
U201	108-46-3	Resorcinol
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS2 (R, T)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-

U206	18883-66-4	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]-
U206	18883-66-4	Streptozotocin
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Ethene, tetrachloro-
U210	127-18-4	Tetrachloroethylene
U211	56-23-5	Carbon tetrachloride
U211	56-23-5	Methane, tetrachloro-
U213	109-99-9	Furan, tetrahydro-(I)
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Acetic acid, thallium(1 +) salt
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Carbonic acid, dithallium(1 +) salt
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride TlCl

U217	10102-45-1	Nitric acid, thallium(1 +) salt
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Ethanethioamide
U218	62-55-5	Thioacetamide
U219	62-56-6	Thiourea
U220	108-88-3	Benzene, methyl-
U220	108-88-3	Toluene
U221	25376-45-8	Benzenediamine, ar-methyl-
U221	25376-45-8	Toluenediamine
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U222	636-21-5	o-Toluidine hydrochloride
U223	66471-62-5	Benzene, 1,3-diisocyanatomethyl- (R, T)
U223	66471-62-5	Toluene diisocyanate (R, T)
U225	75-25-2	Bromoform
U225	75-25-2	Methane, tribromo-
U226	71-55-6	Ethane, 1,1,1-trichloro-
U226	71-55-6	Methyl chloroform
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	Ethane, 1,1,2-trichloro-
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Ethene, trichloro-

U228	79-01-6	Trichloroethylene
U234	99-35-4	Benzene, 1,3,5-trinitro-
U234	99-35-4	1,3,5-Trinitrobenzene (R, T)
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3′-[(3,3′-dimethyl[1,1′-biphenyl]-4,4′-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U236	72-57-1	Trypan blue
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U237	66-75-1	Uracil shallard
U238	51-79-6	Carbamic acid, ethyl ester
U238	51-79-6	Ethyl carbamate (urethane)
U239	1330-20-7	Benzene, dimethyl- (I, T)
U239	1330-20-7	Xylene (I)
U240	194-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U240	194-75-7	2,4-D, salts & esters
U243	1888-71-7	Hexachloropropene
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U244	137-26-8	Thioperoxydicarbonic diamide [(H2N)C(S)]2 S2, tetramethyl-
U244	137-26-8	Thiram

U246	506-68-3	Cyanogen bromide (CN)Br
U247	72-43-5	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis[4-methoxy-
U247	72-43-5	Methoxychlor
U248	181-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U248	181-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U249	1314-84-7	Zinc phosphide Zn3 P2, when present at concentrations of 10% or less
U271	17804-35-2	Benomyl
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester
U278	22781-23-3	Bendiocarb
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U679	63-25-2	Carbaryl
U679	63-25-2	1-Naphthalenol, methylcarbamate
U280	101-27-9	Barban
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U328	95-53-4	Benzenamine, 2-methyl-
U328	95-53-4	o-Toluidine
U353	106-49-0	Benzenamine, 4-methyl-

U353	106-49-0	p-Toluidine
U359	110-80-5	Ethanol, 2-ethoxy-
U359	110-80-5	Ethylene glycol monoethyl ether
U364	22961-82-6	Bendiocarb phenol
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U367	1563-38-8	Carbofuran phenol
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U372	10605-21-7	Carbendazim
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester
U373	122-42-9	Propham
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U387	52888-80-9	Prosulfocarb
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester
U389	2303-17-5	Triallate
U394	30558-43-1	A2213
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U395	5952-26-1	Diethylene glycol, dicarbamate
U395	5952-26-1	Ethanol, 2,2′-oxybis-, dicarbamate

U404	121-44-8	Ethanamine, N,N-diethyl-
U404	121-44-8	Triethylamine
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester
U409	23564-05-8	Thiophanate-methyl
U410	59669-26-0	Ethanimidothioic acid, N,N′-[thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester
U410	59669-26-0	Thiodicarb
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U411	114-26-1	Propoxur
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
See F027	87-86-5	Pentachlorophenol
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
See F027	93-72-1	Silvex (2,4,5-TP)
See F027	93-76-5	2,4,5-T
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
See F027	95-95-4	2,4,5-Trichlorophenol

See F027	88-06-2	2,4,6-Trichlorophenol

[1]CAS Number given for parent compound only.

NR 661.0035 Deletion of certain hazardous waste codes following equipment cleaning and replacement. (1) Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements under subs. (2) and (3). These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.

(2) A generator shall either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the ground water, surface water, or atmosphere.

(a) A generator shall do one of the following:

1. Prepare and follow an equipment cleaning plan and clean equipment in accordance with par. (b).

2. Prepare and follow an equipment replacement plan and replace equipment in accordance with par. (c).

3. Document cleaning and replacement in accordance with par. (c), carried out after termination of use of chlorophenolic preservations.

(b) A generator acting under par. (a) 1. shall do all of the following:

1. Prepare and sign a written equipment cleaning plan that describes:

a. The equipment to be cleaned.

b. How the equipment will be cleaned.

c. The solvent to be used in cleaning.

d. How solvent rinses will be tested.

e. How cleaning residues will be disposed.

2. Clean equipment according to all of the following:

a. Remove all visible residues from process equipment.

b. Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.

3. Meet the following analytical requirements:

a. Rinses shall be tested by using an appropriate method.

b. "Not detected" means at or below the following lower method calibration limits or MCLs: The 2,3,7,8-TCDD-based MCL—0.01 parts per trillion or ppt, sample weight of 1000 g, IS spiking level of 1 ppt, final extraction volume of 10-50 μL. For other congeners—multiply the values by 1 for TCDF/PeCDD/PeCDF, by 2.5 for HxCDD/HxCDF/HpCDD/HpCDF, and by 5 for OCDD/OCDF.

4. The generator shall manage all residues from the cleaning process as F032 waste.

(c) A generator acting under par. (a) 2. shall do all of the following:

1. Prepare and sign a written equipment replacement plan that describes:

a. The equipment to be replaced.

b. How the equipment will be replaced.

c. How the equipment will be disposed.

2. The generator shall manage the discarded equipment as F032 waste.

(d) 1. A generator acting under par. (a) 3. Shall document that previous equipment cleaning or replacement was performed in accordance with this section and occurred after cessation of use of chlorophenolic preservatives.

(3) The generator shall maintain all of the following records documenting the cleaning and replacement as part of the facility's operating record:

(a) The name and address of the facility.

(b) Formulations previously used and the date on which their use ceased in each process at the plant.

(c) Formulations currently used in each process at the plant.

(d) The equipment cleaning or replacement plan.

(e) The name and address of any persons who conducted the cleaning and replacement.

(f) The dates on which cleaning and replacement were accomplished.

(g) The dates of sampling and testing.

(h) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples.

(i) A description of the tests performed, the date the tests were performed, and the results of the tests.

(j) The name and model numbers of the instrument used in performing the tests.

(k) QA/QC documentation.

(L) The following statement signed by the generator or the generator's authorized representative: "I certify under penalty of law that all process equipment required to be cleaned or replaced under s. NR 661.0035 was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment."

Subchapter E — Exclusions/Exemptions

NR 661.0039 Conditional exclusion for used, broken cathode ray tubes, and processed CRT glass undergoing recycling. Used, broken CRTs are not solid wastes if they meet all of the following conditions:

(1) PRIOR TO PROCESSING: These materials are not solid wastes if they are destined for recycling and if they meet all of the following requirements:

(a) *Storage.* The broken CRTs shall be handled in one of the following ways:

1. Stored in a building with a roof, floor, and walls.

2. Placed in a container or a vehicle that is constructed, filled, and closed to minimize releases to the environment of CRT glass including fine solid materials.

(b) *Labeling.* Each container in which the used, broken CRT is contained shall be labeled or marked clearly with one of the following phrases: "Used cathode ray tubes-contains leaded glass" or "Leaded glass from televisions or computers." The container shall also be labeled: "Do not mix with other glass materials."

(c) *Transportation.* The used, broken CRTs shall be transported in a container meeting the requirements specified in pars. (a) 2. and (b).

(d) *Speculative accumulation and use constituting disposal.* The used, broken CRTs are subject to the limitations on speculative accumulation as defined in sub. (3) (h). If they are used in a manner constituting disposal, they shall comply with the applicable requirements under subch. C of ch. NR 666, instead of the requirements of this section.

(e) *Exports.* In addition to the applicable conditions specified in pars. (a) to (d), exporters of used, broken CRTs shall comply with all of the following requirements:

1. Notify EPA of an intended export before the CRTs are scheduled to leave the United States. A complete notification shall be submitted 60 days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a 12 month or lesser period. The notification shall be in writing, signed by the exporter, and include all of the following information:

a. Name, mailing address, telephone number and EPA identification number, if applicable, of the exporter of the CRTs.

b. The estimated frequency or rate at which the CRTs are to be exported and the period of time over which they are to be exported.

c. The estimated total quantity of CRTs, specified in kilograms.

d. All points of entry to and departure from each foreign country through which the CRTs will pass.

e. A description of the means by which each shipment of the CRTs will be transported. For example, mode of transportation vehicle such as air, highway, rail, water, and types of containers such as drums, boxes, tanks.

f. The name and address of the recycler or recyclers and the estimated quantity of used CRTs to be sent to each facility, as well as the names of any alternate recyclers.

g. A description of the manner in which the CRTs will be recycled in the foreign country that will be receiving the CRTs.

h. The name of any transit country through which the CRTs will be sent and a description of the approximate length of time the CRTs will remain in each country and the nature of their handling while there.

2. Notifications shall be submitted electronically using EPA's waste import export tracking system, or its successor system.

3. Upon request by EPA, the exporter shall furnish to EPA any additional information a receiving country requests in order to respond to a notification.

4. EPA will provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification that EPA determines satisfies the requirements specified in subd. 1.

5. The export of CRTs is prohibited unless all of the following occur:

a. The receiving country consents to the intended export. When the receiving country consents in writing to the receipt of the CRTs, EPA will forward an acknowledgment of consent to export CRTs to the exporter. When the receiving country objects to receipt of the CRTs or withdraws a prior consent, EPA will notify the exporter in writing. EPA will also notify the exporter of any responses from transit countries.

b. On or after the automated export system, or AES, filing compliance date, the exporter or a U.S. authorized agent shall do all of the following:

1) Submit electronic export information, or EEI, for each shipment to the AES or its successor system, under the international trade data system, or ITDS, platform, in accordance with 15 CFR 30.4 (b).

2) Include all of the following items in the EEI, along with all of the other information required under 15 CFR 30.6:

a) EPA license code.

b) Commodity classification code per 15 CFR 30.6 (a) (12).

c) EPA consent number.

d) Country of ultimate destination per 15 CFR 30.6 (a) (5).

e) Date of export per 15 CFR 30.6 (a) (2).

f) Quantity of waste in shipment and units for reported quantity, if required reporting units established by value for the reported commodity classification number are in units of weight or volume, per 15 CFR 30.6(a)(15); or EPA net quantity reported in units of kilograms, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

6. When the conditions specified on the original notification change, the exporter shall provide EPA with a written renotification of the change using the allowable methods listed in subd. 2., except for changes to the telephone number specified in subd. 1. a. and decreases in the

quantity indicated pursuant to subd. 1. c. The shipment cannot take place until consent of the receiving country to the changes has been obtained, except for changes to information about points of entry and departure and transit countries pursuant to subd. 1. d. to h., and the exporter of CRTs receives from EPA a copy of the acknowledgment of consent to export CRTs reflecting the receiving country's consent to the changes.

7. A copy of the acknowledgment of consent to export CRTs shall accompany the shipment of CRTs. The shipment shall conform to the terms of the acknowledgment of consent.

8. If a shipment of CRTs cannot be delivered for any reason to the recycler or the alternate recycler, the exporter of CRTs shall renotify EPA of a change in the conditions of the original notification to allow shipment to a new recycler in accordance with subd. 6. and obtain another acknowledgment of consent to export CRTs.

9. An exporter shall keep copies of notifications and acknowledgments of consent to export CRTs for a period of 3 years following receipt of the acknowledgments of consent. An exporter may satisfy this recordkeeping requirement by retaining electronically submitted notifications or electronically generated acknowledgements in the CRT exporter's account on EPA's waste import export tracking system, or its successor system, provided that the copies are readily available for viewing and production if requested by any EPA or an authorized state inspector. No CRT exporter may be held liable for the inability to produce a notification or acknowledgments of consent for inspection under this section if the CRT exporter can demonstrate that the inability to produce such copies are due exclusively to technical difficulty with EPA's waste import export tracking system, or its successor system, for which the CRT exporter bears no responsibility.

10. A CRT exporter shall file with EPA no later than March 1 of each year, an annual report summarizing the quantities, in kilograms, frequency of shipment, and ultimate destination of where the recycling occurs of all used CRTs exported during the previous calendar year. The annual report shall also include all of the following:

a. The name, EPA identification number, if applicable, and mailing and site address of the exporter.

b. The calendar year covered by the report.

c. A certification signed by the CRT exporter that states: “I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all

attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

11. Prior to one year after the AES filing compliance date, annual reports shall be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, Mail Code 2254A, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460. Hand-delivered annual reports on used CRTs exported during 2016 shall be sent to: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, Mail Code 2254A, Environmental Protection Agency, Ariel Rios Bldg., Room 6144, 1200 Pennsylvania Ave. NW., Washington, DC. Subsequently, annual reports shall be submitted to the office listed using the allowable methods specified in subd. 2. An exporter shall keep copies of each annual report for a period of at least 3 years from the due date of the report. An exporter may satisfy this recordkeeping requirement by retaining electronically submitted annual reports in the CRT exporter's account on EPA's waste import export tracking system, or its successor system, provided that a copy is readily available for viewing and production if requested by any EPA or authorized state inspector. No CRT exporter may be held liable for the inability to produce an annual report for inspection under this section if the CRT exporter can demonstrate that the inability to produce the annual report is due exclusively to technical difficulty with EPA's waste import export tracking system, or its successor system, for which the CRT exporter bears no responsibility.

Note: The requirements of par. (e) are based on 40 CFR 261.39 (a) (5) (v) and are administered by EPA and not the department because the exercise of foreign relations and international commerce powers is reserved to the federal government under the U.S. Constitution. Wisconsin has adopted these requirements into its rules for the convenience of the regulated community and for completeness. The enforcement of the 40 CFR 261.39 (a) (5) (v) requirements remains EPA's responsibility even though Wisconsin has adopted these requirements into its rules. Wisconsin provides EPA with information on whether Wisconsin facilities designated to receive hazardous waste imports are authorized to manage specific wastes and in ensuring facility compliance with all applicable environmental laws and rules.

(2) REQUIREMENTS FOR USED CRT PROCESSING. Used, broken CRTs undergoing CRT processing as defined in s. NR 660.10 are not solid wastes if they meet all of the following requirements:

(a) *Storage.* Used, broken CRTs undergoing processing are subject to the requirement of par. (1) (d).

(b) *Processing.*

1. All activities specified in the definition of CRT processing in s. NR 660.10 (19j) (b) and (c) shall be performed within a building with a roof, floor, and walls.

2. No activities may be performed that use temperatures high enough to volatilize lead from CRTs.

(3) PROCESSED CRT GLASS SENT TO CRT GLASS MAKING OR LEAD SMELTING. Glass from used CRTs that is destined for recycling at a CRT glass manufacturer or a lead smelter after processing is not a solid waste unless it is speculatively accumulated as defined in s. NR 661.0001 (3) (h).

(4) USE CONSTITUTING DISPOSAL. Glass from used CRTs that is used in a manner constituting disposal shall comply with the requirements under subch. C of ch. NR 666, instead of the requirements of this section.

NR 661.0040 Conditional exclusion for used, intact cathode ray tubes exported for recycling. Used, intact CRTs exported for recycling are not solid wastes if they meet the notice and consent conditions specified in s. NR 661.0039 (1) (e), and if they are not speculatively accumulated as defined in s. NR 661.0001 (3) (h).

Note: The requirements under s. NR 661.0040 are based on 40 CFR 261.40 and are administered by EPA and not the department because the exercise of foreign relations and international commerce powers is reserved to the federal government under the U.S. Constitution. Wisconsin has adopted these requirements into its rules for the convenience of the regulated community and for completeness. The enforcement of the 40 CFR 261.40 requirements remains EPA's responsibility even though Wisconsin has adopted these requirements into its rules. Wisconsin provides EPA with information on whether Wisconsin facilities designated to receive hazardous waste imports are authorized to manage specific wastes and in ensuring facility compliance with all applicable environmental laws and rules.

NR 661.0041 Notification and recordkeeping for used, intact cathode ray tubes, CRTs, exported for reuse. (1) CRT exporters who export used, intact CRTs for reuse shall send a notification to EPA. This notification may cover export activities extending over a 12 month or lesser period and shall meet all of the following requirements:

(a) The notification shall be in writing, signed by the exporter, and include all of the following information:

1. Name, mailing address, telephone number, and EPA ID number, if applicable, of the exporter of the used, intact CRTs.

2. The estimated frequency or rate at which the used, intact CRTs are to be exported for reuse and the period of time over which they are to be exported.

3. The estimated total quantity of used, intact CRTs specified in kilograms.

4. All points of entry to and departure from each transit country through which the used, intact CRTs will pass, a description of the approximate length of time the used, intact CRTs will remain in each country, and the nature of their handling while there.

5. A description of the means by which each shipment of the used, intact CRTs will be transported. For example, mode of transportation vehicle such as air, highway, rail, water, and types of containers such as drums, boxes, tanks.

6. The name and address of the ultimate destination facility or facilities where the used, intact CRTs will be reused, refurbished, distributed, or sold for reuse and the estimated quantity of used, intact CRTs to be sent to each facility, as well as the name of any alternate destination facility or facilities.

7. A description of the manner in which the used, intact CRTs will be reused, including reuse after refurbishment, in the foreign country that will be receiving the used, intact CRTs.

8. A certification signed by the CRT exporter that states: "I certify under penalty of law that the CRTs described in this notice are intact and fully functioning or capable of being functional after refurbishment and that the used CRTs will be reused or refurbished and reused. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted

information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(b) A notification submitted by mail shall be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, Mail Code 2254A, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460. Hand-delivered notifications shall be sent to: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, Mail Code 2254A, Environmental Protection Agency, William Jefferson Clinton Building, Room 6144, 1200 Pennsylvania Ave. NW., Washington, DC 20004. In both cases, the following shall be prominently displayed on the front of the envelope: "Attention: Notification of Intent to Export CRTs."

(2) An exporter of used, intact CRTs sent for reuse shall keep copies of normal business records, such as contracts, demonstrating that each shipment of exported used, intact CRTs will be reused. This documentation shall be retained for a period of at least 3 years from the date the CRTs were exported. If the documents are written in a language other than English, the exporters of used, intact CRTs sent for reuse shall provide both the original, non-English version of the normal business records as well as a third-party translation of the normal business records into English within 30 days upon request by EPA.

Note: The requirements under s. NR 661.0041 are based on 40 CFR 261.41 and are administered by EPA and not the department because the exercise of foreign relations and international commerce powers is reserved to the federal government under the U.S. Constitution. Wisconsin has adopted these requirements into its rules for the convenience of the regulated community and for completeness. The enforcement of the 40 CFR 261.41 requirements remains EPA's responsibility even though Wisconsin has adopted these requirements into its rules. Wisconsin provides EPA with information on whether Wisconsin facilities designated to receive hazardous waste imports are authorized to manage specific wastes and in ensuring facility compliance with all applicable environmental laws and rules.

Subchapter H — Financial Requirements For Management of Excluded Hazardous secondary material

NR 661.0140 Applicability. (1) Except as provided otherwise in this section, the requirements of this subchapter apply to owners or operators of reclamation and intermediate facilities managing hazardous secondary material excluded under s. NR 661.004 (1) (x).

(2) States and the federal government are exempt from the financial assurance requirements of this subchapter.

NR 661.0141 Definitions. The terms defined in s. NR 665.0141 (4), (6), (7), and (8), have the same meaning in this subchapter as specified in s. NR 665.0141.

NR 661.0142 Cost estimate. (1) The owner or operator shall have a detailed written estimate, in current dollars, of the cost of disposing of any hazardous secondary material as listed or characteristic hazardous waste, and the potential cost of closing the facility as a treatment, storage, and disposal facility. The estimate shall include all of the following:

(a) The estimate shall equal the cost of conducting those activities at the point when the extent and manner of the facility's operation would make these activities the most expensive.

(b) The cost estimate shall be based on the costs to the owner or operator of hiring a third party to conduct these activities. A third party is a party who is neither a parent corporation as defined in s. NR 665.0141 (5) nor a subsidiary of the owner or operator. The owner or operator may use costs for on-site disposal in accordance with applicable requirements if the owner or operator can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

(c) The cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous secondary material, or hazardous or non-hazardous wastes if applicable under s. NR 665.5113 (4), facility structures or equipment, land, or other assets associated with the facility.

(d) The owner or operator may not incorporate a zero cost for hazardous secondary material, or hazardous or non-hazardous wastes if applicable under s. NR 665.5113 (4) that might have economic value.

(2) During the active life of the facility, the owner or operator shall adjust the cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument or instrument used to comply with s. NR 661.0143. For owners and

operators using the financial test or corporate guarantee, the cost estimate shall be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the department as specified in s. NR 661.0143 (5) (c). The adjustment may be made by recalculating the cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. department of commerce in its Survey of Current Business, as specified in pars. (a) and (b). The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year. Adjustments shall be made as follows:

(a) The first adjustment is made by multiplying the cost estimate by the inflation factor. The result is the adjusted cost estimate.

(b) Subsequent adjustments are made by multiplying the latest adjusted cost estimate by the latest inflation factor.

(3) During the active life of the facility, the owner or operator shall revise the cost estimate no later than 30 days after a change in a facility's operating plan or design that would increase the costs of conducting the activities described in sub. (1) or no later than 60 days after an unexpected event that increases the cost of conducting the activities described in sub. (1). The revised cost estimate shall be adjusted for inflation as specified in sub. (2).

(4) The owner or operator shall keep the following at the facility during the operating life of the facility: The latest cost estimate prepared in accordance with subs. (1) and (3) and, when this estimate has been adjusted in accordance with sub. (2), the latest adjusted cost estimate.

NR 661.0143 Financial assurance condition. As specified in s. NR 661.0004 (1) (x) 6. f. an owner or operator of a reclamation or intermediate facility shall have financial assurance as a condition of the exclusion as required under s. NR 661.0004 (1) (x). The facility shall choose from the options specified in subs. (1) to (5).

(1) TRUST FUND. (a) An owner or operator may satisfy the requirements of this section by establishing a trust fund that conforms to the requirements of this subsection and submitting an originally signed duplicate of the trust agreement to the department. The trustee shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

(b) The wording of the trust agreement shall be identical to the wording specified in s. NR 661.0151 (1) (a), and the trust agreement shall be accompanied by a formal certification of acknowledgment as specified in s. NR 661.0151 (1) (b). Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current cost estimate covered by the agreement.

(c) The trust fund shall be funded for the full amount of the current cost estimate before it may be relied upon to satisfy the requirements of this section.

(d) Whenever the current cost estimate changes, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(e) If the value of the trust fund is greater than the total amount of the current cost estimate, the owner or operator may submit a written request to the department for release of the amount in excess of the current cost estimate.

(f) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, the owner or operator may submit a written request to the department for release of the amount in excess of the current cost estimate covered by the trust fund.

(g) Within 60 days after receiving a request from the owner or operator for release of funds as specified in pars. (e) or (f), the department will instruct the trustee to release to the owner or operator such funds as the department specifies in writing. If the owner or operator begins final closure under subchapter G of ch. NR 664 or 665, an owner or operator may request reimbursements for partial or final closure expenditures by submitting itemized bills to the department. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. No later than 60 days after receiving bills for partial or final closure activities, the department will instruct the trustee to make reimbursements in those amounts as the department specifies in writing, if the department determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise

justified. If the department has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, the department may withhold reimbursements of such amounts as the department deems prudent until the department determines, in accordance with s. NR 665.0143 (9), that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the department does not instruct the trustee to make such reimbursements, the department will provide to the owner or operator a detailed written statement of reasons.

(h) The department will agree to termination of the trust when one of the following apply:

1. An owner or operator substitutes alternate financial assurance as specified in this section.

2. The department releases the owner or operator from the requirements of this section in accordance with sub. (9).

(2) SURETEY BOND GUARANTEEING PAYMENT INTO A TRUST FUND. (a) An owner or operator may satisfy the requirements of this section by obtaining a surety bond that conforms to the requirements of this subsection and submitting the bond to the department. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. department of the treasury.

(b) The wording of the surety bond shall be identical to the wording specified in s. NR 661.0151 (2).

(c) The owner or operator who uses a surety bond to satisfy the requirements of this section shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the department. This standby trust fund shall meet the requirements specified in sub. (1), except for all of the following:

1. An originally signed duplicate of the trust agreement shall be submitted to the department with the surety bond.

2. Until the standby trust fund is funded pursuant to the requirements of this section, none of the following are required:

a. Payments into the trust fund as specified in sub. (1).

b. Updating of Schedule A of the trust agreement, as specified in s. NR 661.0151 (1) to show current cost estimates.

c. Annual valuations as required by the trust agreement.

d. Notices of nonpayment as required by the trust agreement.

(d) The bond must guarantee that the owner or operator shall do any of the following:

1. Fund the standby trust fund in an amount equal to the penal sum of the bond before loss of the exclusion under s. NR 661.004 (1) (x).

2. Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin closure issued by the department becomes final, or within 15 days after an order to begin closure is issued by a U.S. district court or other court of competent jurisdiction.

3. Provide alternate financial assurance as specified in this section, and obtain the department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the department of a notice of cancellation of the bond from the surety.

(e) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(f) Except as provided in sub. (6), the penal sum of the bond shall be in an amount at least equal to the current cost estimate.

(g) Whenever the current cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the department, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current cost estimate decreases, the penal sum may be reduced to the amount of the current cost estimate following written approval by the department.

(h) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the department, as evidenced by the return receipts.

(i) The owner or operator may cancel the bond if the department has given prior written consent based on the department's receipt of evidence of alternate financial assurance as specified in this section.

(3) LETTER OF CREDIT. (a) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this subsection and submitting the letter to the department. The issuing institution shall be an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency.

(b) The wording of the letter of credit shall be identical to the wording specified in s. NR 661.0151 (3).

(c) An owner or operator who uses a letter of credit to satisfy the requirements of this section shall also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the department will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the department. This standby trust fund shall meet the requirements of the trust fund specified in sub. (1), except for all of the following:

1. An originally signed duplicate of the trust agreement shall be submitted to the department with the letter of credit.

2. Unless the standby trust fund is funded pursuant to the requirements of this section, none of the following are required:

a. Payments into the trust fund as specified in sub. (1).

b. Updating of Schedule A of the trust agreement to show current cost estimates, as specified in s. NR 661.0151 (1).

c. Annual valuations as required by the trust agreement.

d. Notices of nonpayment as required by the trust agreement.

(d) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: The EPA Identification Number, if any issued; name, and address of the facility; and the amount of funds assured for the facility by the letter of credit.

(e) The letter of credit shall be irrevocable and issued for a period of at least one year. The letter of credit shall provide that the expiration date will be automatically extended for a

period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the department by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the department have received the notice, as evidenced by the return receipts.

(f) Except as provided in sub. (6), the letter of credit shall be issued in an amount at least equal to the current cost estimate.

(g) Whenever the current cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current cost estimate and submit evidence of such increase to the department, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current cost estimate decreases, the amount of the credit may be reduced to the amount of the current cost estimate following written approval by the department.

(h) Following a determination by the department that the hazardous secondary material do not meet the conditions of the exclusion under s. NR 661.0004 (1) (x), the department may draw on the letter of credit.

(i) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the department within 90 days after receipt by both the owner or operator and the department of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the department will draw on the letter of credit. The department may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the department will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the department.

(j) The department will return the letter of credit to the issuing institution for termination when any of the following apply:

1. An owner or operator substitutes alternate financial assurance as specified in this section.

2. The department releases the owner or operator from the requirements of this section in accordance with sub. (9).

(4) INSURANCE. (a) An owner or operator may satisfy the requirements of this section by obtaining insurance that conforms to the requirements of this subsection and submitting a certificate of such insurance to the department. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

(b) The wording of the certificate of insurance shall be identical to the wording specified in s. NR 661.0151 (4).

(c) The insurance policy shall be issued for a face amount at least equal to the current cost estimate, except as provided in sub. (6). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(d) The insurance policy shall guarantee that funds will be available whenever needed to pay the cost of removal of all hazardous secondary material from the unit, to pay the cost of decontamination of the unit, to pay the costs of the performance of activities required under subch. G of ch. NR 664 or 665, as applicable, for the facilities covered by this policy. The policy shall also guarantee that once funds are needed, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the department, to such party or parties as the department specifies.

(e) After beginning partial or final closure under ch. NR 664 or 665, as applicable, an owner or operator or any other authorized person may request reimbursements for closure expenditures by submitting itemized bills to the department. The owner or operator may request reimbursements only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the department will instruct the insurer to make reimbursements in such amounts as the department specifies in writing if the department determines that the expenditures are in accordance with the approved plan or otherwise justified. If the department has reason to believe that the maximum cost over the remaining life of the facility will be significantly greater than the face amount of the policy, the department may withhold reimbursement of such amounts

as the department deems prudent until the department determines, in accordance with sub. (8), that the owner or operator is no longer required to maintain financial assurance for the particular facility. If the department does not instruct the insurer to make such reimbursements, the department will provide to the owner or operator a detailed written statement of reasons.

(f) The owner or operator shall maintain the policy in full force and effect until the department consents to termination of the policy by the owner or operator as specified in par. (j). Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a significant violation of these regulations warranting such remedy as the department deems necessary. Such violation will be deemed to begin upon receipt by the department of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(g) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(h) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If the owner or operator fails to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the department. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the department and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that, on or before the date of expiration, any of the following occurs:

1. The department deems the facility abandoned.

2. Conditional exclusion or interim status is lost, terminated, or revoked.

3. Closure is ordered by the department or a U.S. district court or other court of competent jurisdiction.

4. The owner or operator is named as debtor in a voluntary or involuntary bankruptcy proceeding under Title 11, U.S. Code.

5. The premium due is paid.

(i) Whenever the current cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the department, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current cost estimate decreases, the face amount may be reduced to the amount of the current cost estimate following written approval by the department.

(j) The department will give written consent to the owner or operator that the owner or operator may terminate the insurance policy when any of the following apply:

1. The owner or operator substitutes alternate financial assurance as specified in this section.

2. The department releases the owner or operator from the requirements of this section in accordance with sub. (9).

(5) FINANCIAL TEST AND CORPORATE GUARANTEE. (a) An owner or operator may satisfy the requirements of this section by demonstrating that the owner or operator passes a financial test as specified in this subsection. To pass this test the owner or operator shall meet the criteria of either subd. 1. or 2.:

1. The owner or operator shall have all of the following:

a. Two of the following 3 ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5.

b. Net working capital and tangible net worth each at least 6 times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

c. Tangible net worth of at least $10 million.

d. Assets located in the United States amounting to at least 90 percent of total assets or at least 6 times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

2. The owner or operator shall have all of the following:

a. A current rating for the owner’s or operator’s most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's.

b. Tangible net worth at least 6 times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

c. Tangible net worth of at least $10 million.

d. Assets located in the United States amounting to at least 90 percent of total assets or at least 6 times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

(b) The phrase "current cost estimates" as used in par. (a) refers to the cost estimates required to be shown in paragraphs 1 to 4 of the letter from the owner's or operator's chief financial officer as required in s. NR 661.0151 (5). The phrase "current plugging and abandonment cost estimates" as used in par. (a) refers to the cost estimates required to be shown in paragraphs 1 to 4 of the letter from the owner's or operator's chief financial officer as required in 40 CFR 144.70 (f).

(c) To demonstrate that the owner or operator meets this test, the owner or operator shall submit all of the following to the department:

1. A letter signed by the owner's or operator's chief financial officer and worded as specified in s. NR 661.0151 (5).

2. A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

3. If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies par. (a) 1. that are different from the data in the audited financial statements referred to in subd. 2. or any other audited financial statement or data filed with the Securities and Exchange Commission, SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of the comparison, and the reasons for any differences.

(d) The owner or operator may obtain an extension of the time allowed for submission of the documents specified in par. (c) if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for

that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer shall send, by the effective date of these regulations, a letter to the department of each region in which the owner's or operator's facilities to be covered by the financial test are located. This letter from the chief financial officer shall contain all of the following:

1. Request the extension.

2. Certify that the chief financial officer has grounds to believe that the owner or operator meets the criteria of the financial test.

3. Specify for each facility to be covered by the test the EPA Identification Number, if any issued, name, address, and current cost estimates to be covered by the test.

4. Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations in this subchapter.

5. Specify the date, no later than 90 days after the end of such fiscal year, when the chief financial officer will submit the documents specified in par. (c).

6. Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(e) After the initial submission of items specified in par. (c), the owner or operator shall send updated information to the department within 90 days after the close of each succeeding fiscal year. This information shall consist of all 3 items specified in par. (c).

(f) If the owner or operator no longer meets the requirements specified in par. (a), the owner or operator shall send notice to the department of intent to establish alternate financial assurance as specified in this section. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after the end of such fiscal year.

(g) The department may, based on a reasonable belief that the owner or operator may no longer meet the requirements specified in par. (a), require reports of financial condition at any time from the owner or operator in addition to those specified in par. (c). If the department finds, on the basis of such reports or other information, that the owner or operator no longer meets the

requirements specified in par. (a), the owner or operator shall provide alternate financial assurance as specified in this section within 30 days after notification of such a finding.

(h) The department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in the independent certified public accountant's report on examination of the owner's or operator's financial statements described in par. (c) 2. An adverse opinion or a disclaimer of opinion will be cause for disallowance. The department will evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(i) The owner or operator is no longer required to submit the items specified in par. (c) when any one of the following occurs:

1. An owner or operator substitutes alternate financial assurance as specified in this section.

2. The department releases the owner or operator from the requirements of this section in accordance with sub. (9).

(j) An owner or operator may meet the requirements of this section by obtaining a written guarantee. The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor shall meet the requirements for owners or operators in pars. (a) to (h) and shall comply with the terms of the guarantee. The wording of the guarantee shall be identical to the wording specified in s. NR 661.0151 (7) (a). A certified copy of the guarantee shall accompany the items sent to the department as specified in par. (c). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter shall describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee shall provide all of the following:

1. Following a determination by the department that the hazardous secondary material at the owner or operator's facility covered by this guarantee do not meet the conditions of the

exclusion under s. NR 661.0004 (1) (x), the guarantor will dispose of any hazardous secondary material as hazardous waste and close the facility in accordance with closure requirements under ch. NR 664 or 665, as applicable, or establish a trust fund as specified in sub. (1) in the name of the owner or operator in the amount of the current cost estimate.

2. The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the department, as evidenced by the return receipts.

3. If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the department within 90 days after receipt by both the owner or operator and the department of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(6) USE OF MULTIPLE FINANCIAL MECHANISMS. An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms shall be as specified in subs. (1) to (4), except that it is the combination of mechanisms, rather than the single mechanism, that shall provide financial assurance for an amount at least equal to the current cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, the owner or operator may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for 2 or more mechanisms. The department may use any or all of the mechanisms to provide for the facility.

(7) USE OF FINANCIAL MECHANISM FOR MULTIPLE FACILITIES. An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the department shall include a list showing, for each facility, the EPA Identification Number, if any issued, name, address, and the amount of funds assured by the mechanism. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each

facility. In directing funds available through the mechanism for any of the facilities covered by the mechanism, the department may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(8) REMOVAL AND DECONTAMINATION PLAN FOR RELEASE. (a) An owner or operator of a reclamation facility or an intermediate facility who wishes to be released from their financial assurance obligations under s. NR 661.0004 (1) (x) 6. f. shall submit a plan for removing all hazardous secondary material residues to the department at least 180 days prior to the date on which the owner or operator expects to cease to operate under the exclusion.

(b) The plan shall include all of the following:

1. For each hazardous secondary material storage unit subject to financial assurance requirements under s. NR 661.0004 (1) (x) 6. f., a description of how all excluded hazardous secondary material will be recycled or sent for recycling, and how all residues, contaminated containment systems, contaminated soils, subsoils, structures, and equipment will be removed or decontaminated as necessary to protect human health and the environment.

2. A detailed description of the steps necessary to remove or decontaminate all hazardous secondary material residues and contaminated containment system components, equipment, structures, and soils including procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to protect human health and the environment.

3. A detailed description of any other activities necessary to protect human health and the environment during this timeframe, including leachate collection, run-on and run-off control.

4. A schedule for conducting the activities described that, at a minimum, includes the total time required to remove all excluded hazardous secondary material for recycling and decontaminate all units subject to financial assurance under s. NR 661.0004 (1) (x) 6. f. and the time required for intervening activities that will allow tracking of the progress of decontamination.

(c) The department will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice. The department will also, in response to a request or at the department's discretion, hold a public hearing whenever

such a hearing might clarify one or more issues concerning the plan. The department will give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the 2 notices may be combined. The department will approve, modify, or disapprove the plan within 90 days of its receipt. If the department does not approve the plan, the department shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator shall modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The department will approve or modify this plan in writing within 60 days. If the department modifies the plan, this modified plan becomes the approved plan. The department shall assure that the approved plan is consistent with this subsection. A copy of the modified plan with a detailed statement of reasons for the modifications shall be mailed to the owner or operator.

(d) Within 60 days of completion of the activities described for each hazardous secondary material management unit, the owner or operator shall submit to the department, by registered mail, a certification that all hazardous secondary material have been removed from the unit and the unit has been decontaminated in accordance with the specifications in the approved plan. The certification shall be signed by the owner or operator and by a qualified professional engineer. Documentation supporting the professional engineer's certification shall be furnished to the department, upon request, until the department releases the owner or operator from the financial assurance requirements under s. NR 661.0004 (1) (x) 6. f.

(9) RELEASE OF THE OWNER OR OPERATOR FROM THE REQUIREMENTS OF THIS SECTION. Within 60 days after receiving certifications from the owner or operator and a qualified professional engineer that all hazardous secondary material have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan under sub. (8), the department will notify the owner or operator in writing that the owner or operator is no longer required under s. NR 661.0004 (1) (x) 6. f. to maintain financial assurance for that facility or a unit at the facility, unless the department has reason to believe that all hazardous secondary material have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan. The department shall provide the owner or operator a detailed written statement of any such reason to believe that all hazardous secondary material have not been

removed from the unit or that the unit has not been decontaminated in accordance with the approved plan.

NR 661.0147 Liability requirements. (1) COVERAGE FOR SUDDEN ACCIDENTAL OCCURENCES. An owner or operator of a hazardous secondary material reclamation facility or an intermediate facility subject to financial assurance requirements under s. NR 661.0004 (1) (x) 6. f., or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as follows:

(a) An owner or operator may demonstrate the required liability coverage by having liability insurance. The liability insurance shall meet all of the following conditions:

1. Each insurance policy shall be amended by attachment of the hazardous secondary material facility liability endorsement, or evidenced by a certificate of liability insurance. The wording of the endorsement shall be identical to the wording specified in s. NR 661.0151 (8). The wording of the certificate of insurance shall be identical to the wording specified in s. NR 661.0151 (9). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the department. If requested by the department, the owner or operator shall provide a signed duplicate original of the insurance policy.

2. Each insurance policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

(b) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in subs. (6) and (7).

(c) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in sub. (8).

(d) An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in sub. (9).

(e) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in sub. (10).

(f) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify at least one assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(g) An owner or operator shall notify the department in writing within 30 days whenever one of the following occurs:

1. A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in pars. (a) to (f).

2. A certification of valid claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is entered between the owner or operator and third-party claimant for liability coverage under pars. (a) to (f).

3. A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under pars. (a) to (f).

(2) COVERAGE FOR NONSUDDEN ACCIDENTAL OCCURENCES. An owner or operator of a hazardous secondary material reclamation facility or intermediate facility with land-based units, as defined in s. NR 660.10, which are used to manage hazardous secondary material excluded under s. NR 661.0004 (1) (x) or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for nonsudden accidental

occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who meets the requirements of this section may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. An owners or operator who combines coverage levels for sudden and nonsudden accidental occurrences shall maintain liability coverage in the amount of at least $4 million per occurrence and an annual aggregate amounting to $8 million. This liability coverage may be demonstrated in any of the following ways:

(a) An owner or operator may demonstrate the required liability coverage by having liability insurance. The liability insurance shall meet all of the following conditions:

1. Each insurance policy shall be amended by attachment of the hazardous secondary material facility liability endorsement or evidenced by a certificate of liability insurance. The wording of the endorsement shall be identical to the wording specified in s. NR 661.0151 (8). The wording of the certificate of insurance shall be identical to the wording specified in s. NR 661.0151 (9). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the department. If requested by the department, the owner or operator shall provide a signed duplicate original of the insurance policy.

2. Each insurance policy shall be issued by an insurer that, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer in one or more states.

(b) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in subs. (6) and (7).

(c) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in sub. (8).

(d) An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in sub. (9).

(e) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in sub. (10).

(f) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust

fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this subsection, the owner or operator shall specify at least one assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(g) An owner or operator shall notify the department in writing within 30 days whenever one of the following occurs:

1. A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in pars. (a) to (f).

2. A certification of valid claim for bodily injury or property damages caused by a sudden or non udden accidental occurrence arising from the operation of a hazardous secondary material treatment or storage facility is entered between the owner or operator and third-party claimant for liability coverage under pars. (a) to (f).

3. A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non udden accidental occurrence arising from the operation of a hazardous secondary material treatment or storage facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under pars. (a) to (f).

(3) REQUEST FOR VARIANCE. If an owner or operator demonstrates to the satisfaction of the department that the levels of financial responsibility required by sub. (1) or (2) are not consistent with the degree and duration of risk associated with treatment or storage at the facility or group of facilities, the owner or operator may obtain a variance from the department. The request for a variance shall be submitted in writing to the department. If granted, the variance will take the form of an adjusted level of required liability coveragebased on the department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The department may require an owner or operator who requests a variance to provide technical and engineering information as deemed necessary by the department to determine a level of financial responsibility other than that required by sub. (1) or (2).

(4) ADJUSTMENTS BY THE DEPARTMENT. If the department determines that the levels of financial responsibility required under sub. (1) or (2) are not consistent with the degree and duration of risk associated with treatment or storage at the facility or group of facilities, the department may adjust the level of financial responsibility required under sub. (1) or (2) as may be necessary to protect human health and the environment. This adjusted level will be based on the department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the department determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, pile, or land treatment facility, the department may require that the owner or operator of the facility comply with sub. (2). The owner or operator shall furnish to the department, within a reasonable time, any information the department requests to determine whether cause exists for such adjustments of level or type of coverage.

(5) PERIOD OF COVERAGE. Within 60 days after receiving certifications from the owner or operator and a qualified professional engineer that all hazardous secondary material have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan under s. NR 661.0143 (8), the department will notify the owner or operator in writing that the owner or operator is no longer required under s. NR 661.0004 (1) (x) 6. f. to maintain liability coverage for that facility or a unit at the facility, unless the department has reason to believe that that all hazardous secondary material have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan.

(6) FINANCIAL TEST FOR LIABILITY COVERAGE. (a) An owner or operator may satisfy the requirements of this section by demonstrating that the owner or operator passes a financial test as specified in this subsection. To pass this test the owner or operator shall meet the criteria of subd. 1. or 2.:

1. The owner or operator shall have all of the following:

a. Net working capital and tangible net worth each at least 6 times the amount of liability coverage to be demonstrated by this test.

b. Tangible net worth of at least $10 million.

c. Assets in the United States amounting to at least 90 percent of the owner's or operator's total assets, or at least 6 times the amount of liability coverage to be demonstrated by this test.

2. The owner or operator shall have all of the following:

a. A current rating for the owner's or operator's most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's.

b. Tangible net worth of at least $10 million.

c. Tangible net worth at least 6 times the amount of liability coverage to be demonstrated by this test.

d. Assets in the United States amounting to either at least 90 percent of the owner's or operator's total assets, or at least 6 times the amount of liability coverage to be demonstrated by this test.

(b) The phrase "amount of liability coverage" as used in par. (a) refers to the annual aggregate amounts for which coverage is required under subs. (1) and (2) and the annual aggregate amounts for which coverage is required under ss. NR 664.0147 (1) and (2) and 665.0147 (1) and (2).

(c) To demonstrate that the owner or operator meets this test, the owner or operator shall submit all of the following to the department:

1. A letter signed by the owner's or operator's chief financial officer and worded as specified in s. NR 661.0151 (6). If an owner or operator is using the financial test to demonstrate both assurance as specified by s. NR 661.0143 (5), and liability coverage, the owner or operator shall submit the letter specified in s. NR 661.0151 (6) to cover both forms of financial responsibility. A separate letter as specified in s. NR 661.0151 (5) is not required.

2. A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

3. If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies par. (a) 1. that are different from the data in the audited financial statements referred to in subd. 2. or any other audited financial statement or data filed with the Securities and Exchange Commission, SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in

accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of the comparison, and the reasons for any difference.

(d) The owner or operator may obtain a one-time extension of the time allowed for submission of the documents specified in par. (c) if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer shall send, by the effective date of these regulations, a letter to the department. This letter from the chief financial officer shall contain all of the following:

1. Request the extension.

2. Certify that the chief financial officer has grounds to believe that the owner or operator meets the criteria of the financial test.

3. Specify for each facility to be covered by the test the EPA Identification Number, name, address, the amount of liability coverage and, when applicable, current closure and post-closure cost estimates to be covered by the test.

4. Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations.

5. Specify the date, no later than 90 days after the end of such fiscal year, when the chief financial officer will submit the documents specified in par. (c).

6. Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(e) After the initial submission of items specified in par. (c), the owner or operator shall send updated information to the department within 90 days after the close of each succeeding fiscal year. This information shall consist of all 3 items specified in par. (c).

(f) If the owner or operator no longer meets the requirements under par. (a), the owner or operator shall obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in this section. Evidence of liability coverage shall be submitted to the department within 90 days after the end of the fiscal year for

which the year-end financial data show that the owner or operator no longer meets the test requirements.

(g) The department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in the independent certified public accountant's report on examination of the owner's or operator's financial statements as specified in par. (c) 2. An adverse opinion or a disclaimer of opinion will be cause for disallowance. The department will evaluate other qualifications on an individual basis. The owner or operator shall provide evidence of insurance for the entire amount of required liability coverage as specified in this section within 30 days after notification of disallowance.

(7) GUARANTEE FOR LIABILITY COVERAGE. (a) Subject to par. (b), an owner or operator may meet the requirements of this section by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor shall meet the requirements for owners or operators under subs. (6) (a) to (f). The wording of the guarantee shall be identical to the wording specified in s. NR 661.0151 (7) (b). A certified copy of the guarantee shall accompany the items sent to the department as specified in sub. (6) (c). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter shall describe this "substantial business relationship" and the value received in consideration of the guarantee.

1. If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences, or both as the case may be, arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(b) 1. In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of this section only if the attorneys general or insurance

commissioners of the following states have submitted a written statement to the department that a guarantee executed as described in this section and s. NR 661.0151 (7) (b) is a legally valid and enforceable obligation in that state:

a. The state in which the guarantor is incorporated.

b. Each state in which a facility covered by the guarantee is located.

2. In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of this section only if all of the following conditions are met:

a. The non-U.S. corporation has identified a registered agent for service of process in each state in which a facility covered by the guarantee is located and in the state in which it has its principal place of business.

b. The attorney general or insurance commissioner of each state in which a facility covered by the guarantee is located and the state in which the guarantor corporation has its principal place of business, has submitted a written statement to the department that a guarantee executed as described in this section and s. NR 664.0151 (8) (b) is a legally valid and enforceable obligation in that state.

(8) LETTER OF CREDIT FOR LIABILITY COVERAGE. (a) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this subsection and submitting a copy of the letter of credit to the department.

(b) The financial institution issuing the letter of credit shall be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency.

(c) The wording of the letter of credit shall be identical to the wording specified in s. NR 661.0151 (10).

(d) An owner or operator who uses a letter of credit to satisfy the requirements of this section may also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust will be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

(e) The wording of the standby trust fund shall be identical to the wording specified in s. NR 661.0151 (13).

(9) SURETY BOND FOR LIABILTY COVERAGE. (a) An owner or operator may satisfy the requirements of this section by obtaining a surety bond that conforms to the requirements of this subsection and submitting a copy of the bond to the department.

(b) The surety company issuing the bond shall be among those listed as acceptable sureties on federal bonds in the most recent circular 570 of the U.S. department of the treasury.

(c) The wording of the surety bond shall be identical to the wording specified in s. NR 661.0151 (11).

(d) A surety bond may be used to satisfy the requirements of this section only if the attorneys general or insurance commissioners of the following states have submitted a written statement to the department that a surety bond executed as described in this section and s. NR 661.0151 (7) (b) is a legally valid and enforceable obligation in that state:

1. The state in which the surety is incorporated.

2. Each state in which a facility covered by the surety bond is located.

(10) TRUST FUND FOR LIABILITY COVERAGE. (a) An owner or operator may satisfy the requirements of this section by establishing a trust fund that conforms to the requirements of this subsection and submitting an originally signed duplicate of the trust agreement to the department.

(b) The trustee shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

(c) The trust fund for liability coverage shall be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this section. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the fund, shall either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in this section to cover the difference. For purposes of this subsection, “the full amount of the liability coverage to be provided” means the amount of coverage for sudden or nonsudden occurrences, or both, required to be provided by the owner or operator by this section, less the amount of financial assurance for liability coverage that is being

provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(d) The wording of the trust fund shall be identical to the wording specified in s. NR 661.0151 (12).

NR 661.0148 Incapacity of owners or operators, guarantors, or financial institutions. (1) An owner or operator shall notify the department by certified mail of the commencement of a voluntary or involuntary bankruptcy proceeding under Title 11, U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in s. NR 661.0143 (5) shall make such a notification if named as debtor, as required under the terms of the corporate guarantee.

(2) An owner or operator who fulfills the requirements specified in s. NR 661.0143 or s. NR 661.0147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator shall establish other financial assurance or liability coverage within 60 days after such an event.

NR 661.0151 Wording of the instruments. (1) (a) A trust agreement for a trust fund, as specified in s. NR 661.0143 (1) shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the State of -----" or "a national bank"], the "Trustee."

Whereas, the Wisconsin Department of Natural Resources, "the department", has established certain regulations applicable to the Grantor, requiring that an owner or operator of a

facility regulated under ch. NR 664, or 665, Wis. Adm. Code, or satisfying the conditions of the exclusion under s. NR 661.0004 (1) (x), Wis. Adm. Code shall provide assurance that funds will be available if needed for care of the facility under ch. NR 664 or 665, subchs. G, Wis. Adm. Code as applicable,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number (if available), name, address, and the current cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the department in the event that the hazardous secondary material of the grantor no longer meet the conditions of the exclusion under s. NR 661.0004 (1) (x), Wis. Adm. Code. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the department.

Section 4. Payments from the Fund. The Trustee shall make payments from the Fund as the department shall direct, in writing, to provide for the payment of the costs of the performance of activities required under subch. G of chs. NR 664 or 665, Wis. Adm. Code, for the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the department from the Fund for expenditures for such activities in such amounts as the beneficiary shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the depart specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge the duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 USC 80a-2. (a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to

participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 USC 80a-1 *et seq.*, including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the department shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the department, and the present Trustee by certified mail

10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the department to the Trustee shall be in writing, signed by department, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the department, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the department, or by the Trustee and the department if the Grantor ceases to exist.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the department, or by the Trustee and the department, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Wisconsin.

Section 19. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in s. NR661.0151 (1) (a), Wis. Adm. Code as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

(b) The following is an example of the certification of acknowledgment that shall accompany the trust agreement for a trust fund as specified in s. NR 661.0143 (1).

State of [ ]

County of [ ]

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

(2) A surety bond guaranteeing payment into a trust fund, as specified in s. NR 661.0143 (2), shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Financial Guarantee Bond

Date bond executed:

Effective date:

Principal: [legal name and business address of owner or operator]

Type of Organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation:

Surety(ies): [name(s) and business address(es)]

EPA Identification Number, name, address and amount(s) for each facility guaranteed by this bond:

Total penal sum of bond: $

Surety's bond number:

Know All Persons By These Presents, That we, the Principal and Surety(ies) are firmly bound to the Wisconsin Department of Natural Resources in the event that the hazardous secondary material at the reclamation or intermediate facility listed below no longer meet the conditions of the exclusion under s. NR 661.0004 (1) (x), Wis. Adm. Code, in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Resource Conservation and Recovery Act as amended (RCRA), to have a permit or interim status in order to own or operate each facility identified above, or to meet conditions under s. NR 661.0004 (1) (x), Wis. Adm. Code, and

Whereas said Principal is required to provide financial assurance as a condition of permit or interim status or as a condition of an exclusion under s. NR 661.0004 (1) (x) and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall satisfy all the conditions established for exclusion of hazardous secondary material from coverage as solid waste under s. NR 661.0004 (1) (x), Wis. Adm. Code.

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by the department or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in subch. H of ch. NR 661, Wis. Adm. Code, as applicable, and obtain the department's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the department from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the department that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the department.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the department, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the department, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the department.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the department.

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in s. NR 661.0151 (2), Wis. Adm. Code, as such regulations were constituted on the date this bond was executed.

Principal

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate seal]

Corporate Surety(ies)

[Name and address]

State of incorporation:

Liability limit: $

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: $

(3) A letter of credit, as specified in s. NR 661.0143 (3), shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit

[Address to Wisconsin Department of Natural Resources]

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No.____ in your favor, in the event that the hazardous secondary material at the covered reclamation or intermediary facility(ies) no longer meet the conditions of the exclusion under s. NR 661.0004 (1) (x), Wis. Adm. Code, at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] U.S. dollars $____, available upon presentation of

(1) your sight draft, bearing reference to this letter of credit No.__, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Resource Conservation and Recovery Act of 1976 as amended."

This letter of credit is effective as of [date] and shall expire on [date at least 1 year later], but such expiration date shall be automatically extended for a period of [at least 1 year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in s. NR 661.0151 (3), Wis. Adm. Code, as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution] [Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(4) A certificate of insurance, as specified in s. NR 661.0143 (5), shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certificate of Insurance

Name and Address of Insurer (herein called the "Insurer"):

Name and Address of Insured (herein called the "Insured"):

Facilities Covered: [List for each facility: The EPA Identification Number (if any issued), name, address, and the amount of insurance for all facilities covered, which shall total the face amount shown below.

Face Amount:

Policy Number:

Effective Date:

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance so that in accordance with applicable regulations all hazardous secondary material can be removed from the facility or any unit at the facility and the facility or any unit at the facility can be decontaminated at the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of s. NR661.0143 (4), Wis. Adm. Code, as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Wisconsin Department of Natural Resources, the Insurer agrees to furnish to the department a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in s. NR 661.0151 (4), Wis. Adm. Code, such regulations were constituted on the date shown immediately below.

[Authorized signature for Insurer]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

[Date]

(5) A letter from the chief financial officer, as specified in s. NR 661.0143 (5), shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Letter from Chief Financial Officer

[Address to Wisconsin Department of Natural Resources]

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in subch. H of ch. NR 661, Wis. Adm. Code.

[Fill out the following nine paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number (if any issued), name, address, and current cost estimates.]

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in subch. H of ch. NR 661, Wis. Adm. Code. The current cost estimates covered by the test are shown for each facility: ____.

2. This firm guarantees, through the guarantee specified in subch. H of ch. NR 661, Wis. Adm. Code, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility: ____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee____, or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

3. In States where EPA is not administering the financial requirements of subch. H of ch. 661, Wis. Adm. Code, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subch. H of ch. NR 661, Wis. Adm. Code. The current cost estimates covered by such a test are shown for each facility:____.

4. This firm is the owner or operator of the following hazardous secondary material management facilities for which financial assurance is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subch. H of ch. NR 661, Wis. Adm. Code, or equivalent or substantially equivalent State mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility:____.

5. This firm is the owner or operator of the following underground injection control facilities for which financial assurance for plugging and abandonment is required under part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:____.

6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in subch. H of chs. NR 664 and 665, Wis. Adm. Code. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: ____ .

7. This firm guarantees, through the guarantee specified in subch. H of chs. NR 664 and 665, Wis. Adm. Code, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: ____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee; or (3) engaged in the following substantial business relationship with the owner or operator __, and receiving the following value in consideration of this guarantee __]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

8. In States where EPA is not administering the financial requirements of subch. H of ch. 664 or 665, Wis. Adm. Code, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use

of a test equivalent or substantially equivalent to the financial test specified in subch. H of chs. NR 664 and 665, Wis. Adm. Code. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: __.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subch. H of chs. NR 664 and 665, Wis. Adm. Code, or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: __.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in Alternative I if the criteria of sub. (5) (a) (i) of s. NR 661.0143, Wis. Adm. Code, are used. Fill in Alternative II if the criteria of sub. (5) (a) 2. of s. NR 661.0143, Wis. Adm. Code, are used.]

ALTERNATIVE I

1. Sum of current cost estimates [total of all cost estimates shown in the nine paragraphs above] $__

*2. Total liabilities [if any portion of the cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4] $__

*3. Tangible net worth $____

*4. Net worth $____-

*5. Current assets $____

*6. Current liabilities $____

7. Net working capital [line 5 minus line 6] $____

*8. The sum of net income plus depreciation, depletion, and amortization $____-

*9. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $____-

10. Is line 3 at least $10 million? (Yes/No) ____

11. Is line 3 at least 6 times line 1? (Yes/No) ____-

12. Is line 7 at least 6 times line 1? (Yes/No) ____-

*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14 (Yes/No) ____

14. Is line 9 at least 6 times line 1? (Yes/No) ____-

15. Is line 2 divided by line 4 less than 2.0? (Yes/No) ____-

16. Is line 8 divided by line 2 greater than 0.1? (Yes/No) ____-

17. Is line 5 divided by line 6 greater than 1.5? (Yes/No) ____-

ALTERNATIVE II

1. Sum of current cost estimates [total of all cost estimates shown in the eight paragraphs above] $____-

2. Current bond rating of most recent issuance of this firm and name of rating service

3. Date of issuance of bond ____-

4. Date of maturity of bond ____-

*5. Tangible net worth [if any portion of the cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line] $____-

*6. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $____-

7. Is line 5 at least $10 million? (Yes/No) ____

8. Is line 5 at least 6 times line 1? (Yes/No) ____

*9. Are at least 90% of firm's assets located in the U.S.? If not, complete line 10 (Yes/No) ____

10. Is line 6 at least 6 times line 1? (Yes/No) ____-

I hereby certify that the wording of this letter is identical to the wording specified in s. NR 661.0151 (5), Wis. Adm. Code as such regulations were constituted on the date shown immediately below.

[Signature]

[Name]

[Title]

[Date]

(6) A letter from the chief financial officer, as specified in s. NR 661.0147 (6), shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

Letter from Chief Financial Officer

[Address to Wisconsin Department of Natural Resources]

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage under s. NR 661.0147, Wis. Adm. Code [insert "and costs assured s. NR 661.0143 (5), Wis. Adm. Code," if applicable] as specified in subch. H of ch. NR 661, Wis. Adm. Code.

[Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number (if any issued), name, and address].

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in subch. H of ch. NR 661, Wis. Adm. Code:____

The firm identified above guarantees, through the guarantee specified in subch. H of ch. NR 661, Wis. Adm. Code, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: ____-. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee -____; or (3) engaged in the following substantial business relationship with the owner or operator ____-, and receiving the following value in consideration of this guarantee ____-]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in subch. H of chs. NR 664 and 665, Wis. Adm. Code:____

The firm identified above guarantees, through the guarantee specified in subch. H of chs. NR 664 and 665, Wis. Adm. Code liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: __. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee __; or (3) engaged in the following substantial business relationship with the owner or operator __, and receiving the following value in consideration of this guarantee __]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

[If you are using the financial test to demonstrate coverage of both liability and costs assured under s. NR 661.0143 (5), Wis. Adm. Code, or closure or post-closure care costs under ss. NR 664.143, 664.145, 665.143 or 665.145, Wis. Adm. Code, fill in the following nine paragraphs regarding facilities and associated cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA identification number (if any issued), name, address, and current cost estimates.]

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in subch. H of s. NR 661, Wis. Adm. Code. The current cost estimates covered by the test are shown for each facility:____.

2. This firm guarantees, through the guarantee specified in subch. H of ch. NR 661, Wis. Adm. Code, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility:____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee____, or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

3. In States where EPA is not administering the financial requirements of subch. H of ch. NR 661, Wis. Adm. Code, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially

equivalent to the financial test specified in subch. H of ch. NR 661, Wis. Adm. Code. The current cost estimates covered by such a test are shown for each facility:____.

4. This firm is the owner or operator of the following hazardous secondary material management facilities for which financial assurance is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subch. H of ch. NR 661, Wis. Adm. Code, or equivalent or substantially equivalent State mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility:____.

5. This firm is the owner or operator of the following underground injection control facilities for which financial assurance for plugging and abandonment is required under 40 CFR part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:____.

6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in subch. H of chs. NR 664 and 665, Wis. Adm. Code. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: ____.

7. This firm guarantees, through the guarantee specified in subch. H of chs. NR 664 and 665, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: ____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ____; or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee ____].

[Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

8. In States where EPA is not administering the financial requirements of subch. H of ch. 664 or 665, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subch. H of chs. 664 and 665. The

current closure and/or post-closure cost estimates covered by such a test are shown for each facility: ____.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subch. H of chs. 664 and 665 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: ____.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

PART A. LIABILITY COVERAGE FOR ACCIDENTAL OCCURRENCES

[Fill in Alternative I if the criteria of sub. (6) (a) (i) of s. NR 661.0147, Wis. Adm. Code, are used. Fill in Alternative II if the criteria of sub. (6) (a) (ii) of s. NR 661.0147, Wis. Adm. Code, are used.]

ALTERNATIVE I

1. Amount of annual aggregate liability coverage to be demonstrated $____-.

*2. Current assets $____-.

*3. Current liabilities $____-.

4. Net working capital (line 2 minus line 3) $____-.

*5. Tangible net worth $____-.

*6. If less than 90% of assets are located in the U.S., give total U.S. assets $____-.

7. Is line 5 at least $10 million? (Yes/No) ____-.

8. Is line 4 at least 6 times line 1? (Yes/No) ____-.

9. Is line 5 at least 6 times line 1? (Yes/No) ____-.

*10. Are at least 90% of assets located in the U.S.? (Yes/No) ____. If not, complete line 11.

11. Is line 6 at least 6 times line 1? (Yes/No) ____.

ALTERNATIVE II

1. Amount of annual aggregate liability coverage to be demonstrated $____-.

2. Current bond rating of most recent issuance and name of rating service ____-____-.

3. Date of issuance of bond _____—.

4. Date of maturity of bond _____—.

*5. Tangible net worth $____-.

*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $____-.

7. Is line 5 at least $10 million? (Yes/No) ____-.

8. Is line 5 at least 6 times line 1? ____-.

9. Are at least 90% of assets located in the U.S.? If not, complete line 10. (Yes/No) __

10. Is line 6 at least 6 times line 1? ____-.

[Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and costs assured under s. NR 661.0143(5) or closure or post-closure care costs under ss. NR 664.143, 664.145, 665.143 or 665.145, Wis. Adm. Code.]

PART B. FACILITY CARE AND LIABILITY COVERAGE

[Fill in Alternative I if the criteria of subs. (5) (a) 1. of s. NR 661.0143 and (6) (a) 1. of s. NR 661.0147 are used. Fill in Alternative II if the criteria of subs. (5) (a) 2. of s. NR 661.0143 and (6) (a) 2. of s. NR 661.0147, Wis. Adm. Code are used.]

ALTERNATIVE I

1. Sum of current cost estimates (total of all cost estimates listed above) $____-

2. Amount of annual aggregate liability coverage to be demonstrated $____-

3. Sum of lines 1 and 2 $____

*4. Total liabilities (if any portion of your cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6) $____-

*5. Tangible net worth $____

*6. Net worth $____-

*7. Current assets $____

*8. Current liabilities $____

9. Net working capital (line 7 minus line 8) $____

*10. The sum of net income plus depreciation, depletion, and amortization $____-

*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $____

12. Is line 5 at least $10 million? (Yes/No)

13. Is line 5 at least 6 times line 3? (Yes/No)

14. Is line 9 at least 6 times line 3? (Yes/No)

*15. Are at least 90% of assets located in the U.S.? (Yes/No) If not, complete line 16.

16. Is line 11 at least 6 times line 3? (Yes/No)

17. Is line 4 divided by line 6 less than 2.0? (Yes/No)

18. Is line 10 divided by line 4 greater than 0.1? (Yes/No)

19. Is line 7 divided by line 8 greater than 1.5? (Yes/No)

ALTERNATIVE II

1. Sum of current cost estimates (total of all cost estimates listed above) $____-

2. Amount of annual aggregate liability coverage to be demonstrated $____-

3. Sum of lines 1 and 2 $____

4. Current bond rating of most recent issuance and name of rating service _____-

5. Date of issuance of bond _____—

6. Date of maturity of bond _____—

*7. Tangible net worth (if any portion of the cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line) $____-

*8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.) $____-

9. Is line 7 at least $10 million? (Yes/No)

10. Is line 7 at least 6 times line 3? (Yes/No)

*11. Are at least 90% of assets located in the U.S.? (Yes/No) If not complete line 12.

12. Is line 8 at least 6 times line 3? (Yes/No)

I hereby certify that the wording of this letter is identical to the wording specified in s. NR 661.0151 (6), Wis. Adm. Code as such regulations were constituted on the date shown immediately below.

[Signature]

[Name]

[Title]

[Date]

(7) (a) A corporate guarantee, as specified in s. NR 661.0143 (5) shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Corporate Guarantee for Facility Care

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the State of [insert name of State], herein referred to as guarantor. This guarantee is made on behalf of the [owner or operator] of [business address], which is [one of the following: "our subsidiary"; "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in s. NR 664.141 (8) and 665.141 (8), Wis. Adm. Code" to the department.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in s. NR 661.0143 (5), Wis. Adm. Code.

2. [Owner or operator] owns or operates the following facility(ies) covered by this guarantee: [List for each facility: EPA Identification Number (if any issued), name, and address.

3. "Closure plans" as used below refer to the plans maintained as required by subch. H of ch. NR 661, Wis. Adm. Code, for the care of facilities as identified above.

4. For value received from [owner or operator], guarantor guarantees that in the event of a determination by the department that the hazardous secondary material at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under s. NR 661.0004 (1) (x), Wis. Adm. Code, the guarantor will dispose of any hazardous secondary material as hazardous waste, and close the facility in accordance with closure requirements found in ch. NR 664 or 665, Wis. Adm. Code, as applicable, or establish a trust fund as specified in s. NR 661.0143 (1), Wis. Adm. Code, in the name of the owner or operator in the amount of the current cost estimate.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the department for the region(s) in which the facility(ies) is(are) located and to [owner or operator] that he intends to provide alternate financial assurance as specified in subch. H of ch. NR 661, Wis. Adm. Code, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.

6. The guarantor agrees to notify the department by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the department of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate financial assurance as specified in of chs. NR 664, 665, or subch. H of ch. NR 661, Wis. Adm. Code, as applicable, in the name of [owner or operator] unless [owner or operator] has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure plan, the extension or reduction of the time of performance, or any other modification or alteration of an obligation of the owner or operator pursuant to chs. NR 664, 665, or subch. H of ch. NR 661, Wis. Adm. Code.

9. Guarantor agrees to remain bound under this guarantee for as long as [owner or operator] shall comply with the applicable financial assurance requirements of chs. NR 664 and 665, Wis. Adm. Code or the financial assurance condition of s. NR 661.0004 (1) (x) 6. f., Wis. Adm. Code, for the above-listed facilities, except as provided in paragraph 10 of this agreement.

10. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

Guarantor may terminate this guarantee by sending notice by certified mail to the department and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the department approve(s), alternate coverage complying with s. NR 661.0143, Wis. Adm. Code.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]

Guarantor may terminate this guarantee 120 days following the receipt of notification, through certified mail, by the department and by [the owner or operator].

11. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in chs. 664, 665, or subch. H of s. NR 661, Wis. Adm. Code, as applicable, and obtain written approval of such assurance from the department within 90 days after a notice of cancellation by the guarantor is received by the department or from guarantor, guarantor shall provide such alternate financial assurance in the name of [owner or operator].

12. Guarantor expressly waives notice of acceptance of this guarantee by the department or by [owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the closure plan and of amendments or modifications of the applicable requirements of chs. 664, 665, or subch. H of s. NR 661, Wis. Adm. Code.

I hereby certify that the wording of this guarantee is identical to the wording specified in s. NR 661.0151 (7) (a), Wis. Adm. Code, as such regulations were constituted on the date first above written.

Effective date:

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

(b) A guarantee, as specified in s. NR 661.0147 (7) shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Guarantee for Liability Coverage

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of [if incorporated within the United States insert "the State of ____-" and insert name of State; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and

address of the registered agent in the State of the principal place of business], herein referred to as guarantor. This guarantee is made on behalf of [owner or operator] of [business address], which is one of the following: "our subsidiary;" "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary;" or "an entity with which guarantor has a substantial business relationship, as defined in s. NR [either 664.141 (8) or 665.141 (8)] Wis. Adm. Code," to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in s. NR 661.0147 (7), Wis. Adm. Code.

2. [Owner or operator] owns or operates the following facility(ies) covered by this guarantee: [List for each facility: EPA identification number (if any issued), name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each State.] This corporate guarantee satisfies RCRA third-party liability requirements for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences in above-named owner or operator facilities for coverage in the amount of [insert dollar amount] for each occurrence and [insert dollar amount] annual aggregate.

3. For value received from [owner or operator], guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [sudden and/or nonsudden] accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s) or settlement agreement(s) up to the limits of coverage identified above.

4. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion

does not apply to liability for damages that [insert owner or operator] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator]; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert owner or operator]. This exclusion applies:

(A) Whether [insert owner or operator] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in subs. (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert owner or operator];

(2) Premises that are sold, given away or abandoned by [insert owner or operator] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert owner or operator];

(4) Personal property in the care, custody or control of [insert owner or operator];

(5) That particular part of real property on which [insert owner or operator] or any contractors or subcontractors working directly or indirectly on behalf of [insert owner or operator] are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the department and to [owner or operator] that he intends to provide alternate liability coverage as specified in s. NR 661.0147, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless [owner or operator] has done so.

6. The guarantor agrees to notify the department by certified mail of a voluntary or involuntary proceeding under title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding. Guarantor agrees that within 30 days after being notified by the department of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in s. NR 661.0147, Wis. Adm. Code, in the name of [owner or operator], unless [owner or operator] has done so.

7. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by s. NR 661.0147, Wis. Adm. Code, provided that such modification shall become effective only if a department does not disapprove the modification within 30 days of receipt of notification of the modification.

8. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] shall comply with the applicable requirements of s. NR661.0147, Wis. Adm. Code, for the above-listed facility(ies), except as provided in paragraph 10 of this agreement.

9. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

10. Guarantor may terminate this guarantee by sending notice by certified mail to the department and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the department approves, alternate liability coverage complying with s. NR 661.0147, Wis. Adm. Code.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]:

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the department and by [the owner or operator].

11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

13. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] facility should be paid in the amount of $.

[Signatures]

Principal

(Notary) Date

[Signatures]

Claimant(s)

(Notary) Date

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee will be considered [insert “primary” or “excess”] coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in s. NR 661.0151 (7) (b) as such regulations were constituted on the date shown immediately below.

Effective date:

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

(8) A hazardous waste facility liability endorsement as specified in s. NR 661.0147 shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Hazardous Secondary Material Reclamation/Intermediate Facility Liability Endorsement

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under s. NR 661.0147, Wis. Adm. Code. The coverage applies at [list EPA Identification Number (if any issued), name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) to (e) of this Paragraph 2 are hereby amended to conform with subsections (a) to (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in s. NR 661.0147 (6), Wis. Adm. Code.

(c) Whenever requested by the department, the Insurer agrees to furnish to the department a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the facility, will

be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the department.

(e) Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the department.

Attached to and forming part of policy No. __ issued by [name of Insurer], herein called the Insurer, of [address of Insurer] to [name of insured] of [address] this _____ day of _____, 19__. The effective date of said policy is _____ day of _____, 19__.

I hereby certify that the wording of this endorsement is identical to the wording specified in s. NR661.0151 (8), Wis. Adm. Code, as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of Authorized Representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(9) A certificate of liability insurance as required in s. NR 661.0147 shall be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS SECONDARY MATERIAL RECLAMATION/INTERMEDIATE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. [Name of Insurer], (the "Insurer"), of [address of Insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under chs. 664, 665, and the financial assurance condition of s. NR 661.0004 (1) (x) 6. f, Wis. Adm. Code. The coverage applies at [list EPA Identification Number (if any issued), name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden

accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number, issued on [date]. The effective date of said policy is [date].

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in s. NR 661.0147, Wis. Adm. Code.

(c) Whenever requested by the department, the Insurer agrees to furnish to the department a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the department.

(e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the department.

I hereby certify that the wording of this instrument is identical to the wording specified in s. NR 661.0151 (9), Wis. Adm. Code, as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(10) A letter of credit, as specified in s. NR 661.0147 (8) shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit

[Name and Address of Issuing Institution]

[Wisconsin Department of Natural Resources]

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. ____in the favor of ["any and all third-party liability claimants" or insert name of trustee of the standby trust fund], at the request and for the account of [owner or operator's name and address] for third-party liability awards or settlements up to [in words] U.S. dollars $____per occurrence and the annual aggregate amount of [in words] U.S. dollars $___, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of [in words] U.S. dollars $____ per occurrence, and the annual aggregate amount of [in words] U.S. dollars $____, for nonsudden accidental occurrences available upon presentation of a sight draft bearing reference to this letter of credit No. ____, and [insert the following language if the letter of credit is being used without a standby trust fund: (1) a signed certificate reading as follows:

CERTIFICATE OF VALID CLAIM

The undersigned, as parties [insert principal] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operations of [principal's] facility should be paid in the amount of $[ ]. We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which [insert principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal].

This exclusion applies:

(A) Whether [insert principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in subs. (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert principal];

(2) Premises that are sold, given away or abandoned by [insert principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert principal];

(4) Personal property in the care, custody or control of [insert principal];

(5) That particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert principal] are performing operations, if the property damage arises out of these operations.

[Signatures]

Grantor

[Signatures]

Claimant(s)

or (2) a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.]

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but such expiration date shall be automatically extended for a period of [at least one year]

on [date and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the Wisconsin Department of Natural Resources, and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

[Insert the following language if a standby trust fund is not being used: "In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered [insert "primary" or "excess" coverage]."

We certify that the wording of this letter of credit is identical to the wording specified in s. NR 661.0151(10), Wis. Adm. Code, as such regulations were constituted on the date shown immediately below. [Signature(s) and title(s) of official(s) of issuing institution] [Date].

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(11) A surety bond, as specified in s. NR 661.0147 (9) shall be worded as follows: except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

PAYMENT BOND

Surety Bond No. [Insert number]

Parties [Insert name and address of owner or operator], Principal, incorporated in [Insert State of incorporation] of [Insert city and State of principal place of business] and [Insert name and address of surety company(ies)], Surety Company(ies), of [Insert surety(ies) place of business].

EPA Identification Number (if any issued), name, and address for each facility guaranteed by this bond:

	Sudden accidental	Nonsudden accidental

	occurrences	occurrences
Penal Sum Per Occurrence	[insert amount]	[insert amount]
Annual Aggregate	[insert amount]	[insert amount]

Purpose: This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its (their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties caused by [“sudden” and/or “nonsudden”] accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

(1) Section 3004 of the Resource Conservation and Recovery Act of 1976, as amended.

(2) Rules and regulations of the department particularly, chs. 664, 665, and subch. H of ch. NR 661, Wis. Adm. Code (if applicable).

Conditions:

(1) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by [“sudden” and/or “nonsudden”] accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert Principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Principal] under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of [insert Principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Principal]. This exclusion applies:

(A) Whether [insert Principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in subs. (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Principal];

(2) Premises that are sold, given away or abandoned by [insert Principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Principal];

(4) Personal property in the care, custody or control of [insert Principal];

(5) That particular part of real property on which [insert Principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert Principal] are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal will satisfy valid third party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert name of Principal] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] facility should be paid in the amount of $[ ].

[Signature]

Principal

[Notary] Date

[Signature(s)]

Claimant(s)

[Notary] Date

or (b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond will be considered [insert "primary" or "excess"] coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the department forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the department, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the department, as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the department.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from [insert date] (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this

surety bond is identical to the wording specified in s. NR 661.0151 (11), Wis. Adm. Code, as such regulations were constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate Seal]

CORPORATE SURETY[IES]

[Name and address]

State of incorporation:

Liability Limit: $

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: $

(12) (a) A trust agreement, as specified in s. NR 661.0147 (10) shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of ____" or "a national bank"], the "trustee."

Whereas, the Wisconsin Department of Natural Resources, "department," has established certain regulations applicable to the Grantor, requiring that an owner or operator shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the EPA Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, hereinafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of ____-[up to $1 million] per occurrence and [up to $2 million] annual aggregate for sudden accidental occurrences and ____ [up to $3 million] per occurrence and ____-[up to $6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor]. This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in subs. (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Grantor];

(4) Personal property in the care, custody or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the department.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by making payments from the Fund only upon receipt of one of the following documents;

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] facility or group of facilities should be paid in the amount of $[ ].

[Signatures]

Grantor

[Signatures]

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge the duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 USC 80a-2. (a), shall not be acquired or held unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 USC 81a-1 *et seq.*, including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United

States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the department shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee

shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the department, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the department to the Trustee shall be in writing, signed by the department, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the department, except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equaling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days

after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the department.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the department, or by the Trustee and the department if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the department, or by the Trustee and the department, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The department will agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Wisconsin.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in s. NR 661.0151 (12), Wis. Adm. Code, as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

(b) The following is an example of the certification of acknowledgement which shall accompany the trust agreement for a trust fund as specified in s. NR 661.0147 (10).

State of

County of

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/ his name thereto by like order.

[Signature of Notary Public]

(13) (a) A standby trust agreement, as specified in s. NR 661.0147 (8) shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Standby Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of a State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of _____" or "a national bank"], the "trustee."

Whereas Wisconsin Department of Natural Resources, "department," has established certain regulations applicable to the Grantor, requiring that an owner or operator shall

demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term Grantor means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term Trustee means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This Agreement pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the EPA Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund, hereafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of ____-[up to $1 million] per occurrence and ____-[up to $2 million] annual aggregate for sudden accidental occurrences and ____-[up to $3 million] per occurrence and ____-[up to $6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor].

This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in subs. (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned by [insert Grantor];

(4) Personal property in the care, custody or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered [insert “primary” or “excess”] coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from

the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the department.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] facility should be paid in the amount of $[ ]

[Signature]

Grantor

[Signatures]

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of s. NR 661.0151 (11), Wis. Adm. Code, and Section 4 of this Agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge the duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which

persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 USC 80a-2 (a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 USC 80a-1 *et seq.*, including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9**.** Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee. The Trustee may resign, or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the

successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the department and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee. All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the department, except as provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the department, or by the Trustee and the department.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the department, or by the Trustee and the department, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the Grantor.

The department will agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the

Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [enter name of State].

Section 18**.** Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in s. NR 661.0151 (13), Wis. Adm. Code, as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

(b) The following is an example of the certification of acknowledgement which shall accompany the trust agreement for a standby trust fund as specified in s. NR 661.0147 (8).

State of

County of

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal;

that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/ his name thereto by like order.

[Signature of Notary Public]

Subchapter I—Use and Management of Containers

NR 661.0170 Applicability. This subchapter applies to hazardous secondary material excluded under the remanufacturing exclusion under s. NR 661.0004 (1) (za) and stored in containers.

NR 661.0171 Condition of containers. If a container holding hazardous secondary material is not in good condition, such as having severe rusting, apparent structural defects or if it begins to leak, the hazardous secondary material shall be transferred from this container to a container that is in good condition or managed in some other way that complies with the requirements of this chapter.

NR 661.0172 Compatibility of hazardous secondary material with containers. The container shall be made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous secondary material to be stored, so that the ability of the container to contain the material is not impaired.

NR 661.0173 Management of containers. (1) A container holding hazardous secondary material shall always be closed during storage, except when it is necessary to add or remove the hazardous secondary material.

(2) A container holding hazardous secondary material shall not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.

NR 661.0175 Containment. (1) Container storage areas shall have a containment system that is designed and operated in accordance with sub (2).

(2) A containment system shall be designed and operated to meet all of the following conditions:

(a) A base shall underlie the containers. The base shall be free of cracks or gaps and sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.

(b) The base shall be sloped, or the containment system shall be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.

(c) The containment system shall have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater.

(d) Run-on into the containment system shall be prevented unless the collection system has sufficient excess capacity in addition to that required in par. (c) to contain any run-on that might enter the system.

(e) Spilled or leaked material and accumulated precipitation shall be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

NR 661.0176 Special requirements for ignitable or reactive hazardous secondary material. A container holding ignitable or reactive hazardous secondary material shall be located at least 15 meters from the facility's property line.

NR 661.0177 Special requirements for incompatible materials. (1) Incompatible materials shall not be placed in the same container.

(2) Hazardous secondary material shall not be placed in an unwashed container that previously held an incompatible material.

(3) A storage container holding a hazardous secondary material that is incompatible with any other materials stored nearby shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

NR 661.0179 Air emission standards. A remanufacturer or other person that stores or treats the hazardous secondary material shall manage all hazardous secondary material placed in a container in accordance with the applicable requirements under subchs. AA, BB, and CC.

Subchapter J—Tank Systems

NR 661.0190 Applicability. (1) The requirements of this subchapter apply to tank systems for storing or treating hazardous secondary material excluded under the remanufacturing exclusion under s. NR 661.0004 (1) (za).

(2) Tank systems, including sumps, as defined in s. NR 660.10 (114), that serve as part of a secondary containment system to collect or contain releases of hazardous secondary material are exempted from the requirements specified in s. NR 661.0193 (1).

NR 661.0191 Assessment of existing tank system's integrity. (1) A tank system shall meet the secondary containment requirements specified in s. NR 661.0193, or the remanufacturer or other person that handles the hazardous secondary material shall determine that the tank system is not leaking or is unfit for use. Except as provided in sub. (3), a written assessment reviewed and certified by a qualified professional engineer shall be kept on file at the remanufacturer's facility or other facility that stores or treats the hazardous secondary material that attests to the tank system's integrity.

(2) This assessment shall determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the material to be stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider all of the following:

(a) Design standard, if available, according to which the tank and ancillary equipment were constructed.

(b) Hazardous characteristics of the material that have been and will be handled.

(c) Existing corrosion protection measures.

(d) If available, the documented age of the tank system. Otherwise provide an estimate of the age of the tank system.

(e) Results of a leak test, internal inspection, or other tank integrity examination including whichever of the following is applicable:

1. For non-enterable underground tanks, the assessment shall include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects.

2. For other than non-enterable underground tanks and for ancillary equipment, this assessment shall include either a leak test, as specified in subd. 1. or other integrity examination that is certified by a qualified professional engineer that addresses cracks, leaks, corrosion, and erosion.

Note: The practices described in the American Petroleum Institute Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines in conducting other than a leak test.

(3) If, as a result of the assessment conducted in accordance with sub. (1), a tank system is found to be leaking or unfit for use, the remanufacturer or other person that stores or treats the hazardous secondary material shall comply with the requirements specified in s. NR 661.0196.

NR 661.0193 Containment and detection of releases. (1) A secondary containment system shall be all of the following:

(a) Designed, installed, and operated to prevent any migration of materials or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system.

(b) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

Note: If the collected material is a hazardous waste under ch. NR 661, it is subject to management as a hazardous waste in accordance with all applicable requirements specified in chs. NR 662 to 665, 666, and 668. If the collected material is discharged through a point source to waters of the state, it is subject to the requirements specified in ss. 283.31 and 283.33, Stats. If discharged to a publicly owned treatment works or POTW, the collected material is subject to s. 283.21 (2), Stats. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR part 302 and the requirements specified in s. 292.11, Stats., and chs. NR 706 to 726.

(2) To meet the requirements under sub. (1), a secondary containment system shall be at a minimum all of the following:

(a) Constructed of or lined with materials that are compatible with the materials to be placed in the tank system and shall have sufficient strength and thickness to prevent failure

owing to pressure gradients, including static head and external hydrological forces, physical contact with the material to which it is exposed, climatic conditions, and the stress of daily operation, including stresses from nearby vehicular traffic.

(b) Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift.

(c) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous secondary material or accumulated liquid in the secondary containment system at the earliest practicable time.

(d) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked material and accumulated precipitation shall be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment.

(3) Secondary containment for tanks shall include one or more of the following devices:

(a) A liner external to the tank.

(b) A vault.

(c) A double-walled tank.

(4) In addition to the requirements under subs. (1)to (3), a secondary containment system shall satisfy all of the following requirements:

(a) An external liner system shall be all of the following:

1. Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary.

2. Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. The additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

3. Free of cracks or gaps.

4. Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the material if the material is released from the tank.

(b) A vault system shall be all of the following:

1. Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary.

2. Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

3. Constructed with chemical-resistant water stops in place at all joints, if any.

4. Provided with an impermeable interior coating or lining that is compatible with the stored material and that will prevent migration of material into the concrete.

5. Provided with a means to protect against the formation of and ignition of vapors within the vault, if the material being stored or treated is ignitable or reactive.

6. Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

(c) A double-walled tank shall be all of the following:

1. Designed as an integral structure, an inner tank completely enveloped within an outer shell, so that any release from the inner tank is contained by the outer shell.

2. Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell.

3. Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time.

Note: The provisions outlined in the Steel Tank Institute's "Standard for Dual Wall Underground Steel Storage Tanks" may be used as guidelines for aspects of the design of underground steel double-walled tanks.

(6) Ancillary equipment shall be provided with secondary containment, such as trenching, jacketing, or double-walled piping that meets the requirements under subs. (1) and (2) except for the following:

(a) Aboveground piping, excluding flanges, joints, valves, and other connections, that are visually inspected for leaks on a daily basis.

(b) Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis.

(c) Sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis.

(d) Pressurized aboveground piping systems with automatic shut-off devices, such as excess flow check valves, flow metering shutdown devices, or loss of pressure actuated shut-off devices that are visually inspected for leaks on a daily basis.

NR 661.0194 General operating requirements. (1) Hazardous secondary material or treatment reagents shall not be placed in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

(2) A remanufacturer or other person that stores or treats hazardous secondary material shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include at a minimum all of the following:

(a) Spill prevention controls, such as check valves or dry disconnect couplings.

(b) Overfill prevention controls, such as level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank.

(c) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(3) A remanufacturer or other person that stores or treats hazardous secondary material shall comply with the requirements specified in s. NR 661.0196 if a leak or spill occurs in the tank system.

NR 661.0196 Response to leaks or spills and disposition of leaking or unfit-for-use tank systems. A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, shall be removed from service immediately, and the remanufacturer or other person that stores or treats the hazardous secondary material shall satisfy all of the following requirements:

(1) CESSATION OF USE; PREVENT FLOW OR ADDITION OF MATERIALS. The remanufacturer or other person that stores or treats the hazardous secondary material shall immediately stop the flow of hazardous secondary material into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(2) REMOVAL OF MATERIAL FROM TANK SYSTEM OR SECONDARY CONTAINMENT SYSTEM. (a) If the release was from the tank system, the remanufacturer or other person that stores or treats the hazardous secondary material shall, within 24 hours after detection of the leak or, if the remanufacturer or other person that stores or treats the hazardous secondary material demonstrates that it is not possible, at the earliest practicable time, remove as much of the material as is necessary to prevent further release of hazardous secondary material to the environment and to allow inspection and repair of the tank system to be performed.

(b) If the material was released to a secondary containment system, all released materials shall be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(3) CONTAINMENT OF VISIBLE RELEASES TO THE ENVIRONMENT. The remanufacturer or other person that stores or treats the hazardous secondary material shall immediately conduct a visual inspection of the release and, based upon that inspection do all of the following:

(a) Prevent further migration of the leak or spill to soils or surface water.

(b) Remove and properly dispose of any visible contamination of the soil or surface water.

(4) NOTIFICATIONS, REPORTS. (a) Except as provided in sub. (b), any release to the environment shall be reported to the department within 24 hours of its detection. If the release has been reported pursuant to ch. NR 706, that report will satisfy this requirement.

(b) A person need not report on a leak or spill of a hazardous secondary material in any of the following circumstances:

1. The leak or spill is less than or equal to a quantity of one pound.

2. The leak or spill is immediately contained and cleaned up.

(c) Within 30 days of detection of a release to the environment, a report containing all of the following information shall be submitted to the department:

1. The likely route of migration of the release.

2. The characteristics of the surrounding soil, such as soil composition, geology, hydrogeology, and climate.

3. The results of any monitoring or sampling conducted in connection with the release, if available. If sampling or monitoring data relating to the release are not available within 30 days, these data shall be submitted to the department as soon as they become available.

4. The proximity to downgradient drinking water, surface water, and populated areas.

5. The description of response actions taken or planned.

(5) PROVISION OF SECONDARY CONTAINMENT, REPAIR, OR CLOSURE. (a) Unless the remanufacturer or other person that stores or treats the hazardous secondary material satisfies the requirements specified inpars. (b) to (d), the tank system shall cease to operate under the remanufacturing exclusion under s. NR 661.0004 (1) (za).

(b) If the cause of the release was a spill that has not damaged the integrity of the system, the remanufacturer or other person that stores or treats the hazardous secondary material may return the system to service as soon as the released material is removed and any necessary repairs are made.

(c) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system shall be repaired prior to returning the tank system to service.

(d) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the remanufacturer or other person that stores or treats the hazardous secondary material shall provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements specified in s. NR 661.0193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component shall be repaired and may be returned to service without secondary containment as long as the requirements under sub. (6) are satisfied. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection, such as the bottom of an inground or onground tank, the entire component shall be provided with secondary containment as specified in s. NR 661.0193 prior to being returned to use.

(6) CERTIFICATION OF MAJOR REPAIRS. If the remanufacturer or other person that stores or treats the hazardous secondary material has repaired a tank system in accordance with sub. (5), and the repair has been extensive, such as installation of an internal liner or repair of a ruptured primary containment or secondary containment vessel, the tank system shall not be

returned to service unless the remanufacturer or other person that stores or treats the hazardous secondary material has obtained a certification by a qualified professional engineer that the repaired system is capable of handling hazardous secondary material without release for the intended life of the system. This certification shall be kept on file at the facility and maintained until closure of the facility.

Note: The department or Regional Administrator may, on the basis of any information received that there is or has been a release of hazardous secondary material or hazardous constituents into the environment, issue an order under s. 291.37 or 291.85, Stats., or 42 USC 6973(a), requiring corrective action or other response as deemed necessary to protect human health or the environment.

Note: 40 CFR part 302 may require the owner or operator to notify the National Response Center of certain releases.

NR 661.0197 Termination of remanufacturing exclusion. A hazardous secondary material stored in a unit more than 90 days after the unit ceases to operate under the remanufacturing exclusion specified in s. NR 661.0004 (1) (za) or otherwise ceases to be operated for manufacturing or for storage of a product or a raw material, becomes subject to regulation as hazardous waste under chs. NR 661 to 666, 668, and 670, as applicable.

NR 661.0198 Special requirements for ignitable or reactive materials. (1) Ignitable or reactive material shall not be placed in tank systems unless the material is stored or treated in such a way that it is protected from any material or conditions that may cause the material to ignite or react.

(2) A remanufacturer or other person that stores or treats hazardous secondary material that is ignitable or reactive shall store or treat the hazardous secondary material in a tank that is in compliance with the requirements for the maintenance of protective distances between the material management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 to 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," 1977 or 1981, incorporated by reference in s. NR 660.11.

NR 661.0199 Special requirements for incompatible materials. (1) Incompatible materials shall not be placed in the same tank system.

(2) Hazardous secondary material shall not be placed in a tank system that has not been decontaminated and that previously held an incompatible material.

NR 661.0200 Air emission standards. A remanufacturer or other person that stores or treats hazardous secondary material shall manage all hazardous secondary material placed in a tank in accordance with the applicable requirements under subchapters AA, BB, and CC.

Subchapter M — Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials

NR 661.0400 Applicability. The requirements of this subchapter apply to those areas of an entity managing hazardous secondary material excluded under s. NR 661.0004 (1) (w) or (x) where hazardous secondary material is generated or accumulated on site.

(1) A generator of hazardous secondary material, or an intermediate or reclamation facility, that accumulates 6,000 kg or less of hazardous secondary material at any time shall comply with ss. NR 661.0410 and 661.0411.

(2) A generator of hazardous secondary material, or an intermediate or reclamation facility, that accumulates more than 6,000 kg of hazardous secondary material at any time shall comply with ss. NR 661.0410 and 661.0420.

NR 661.0410 Preparedness and prevention. (1) MAINTENANCE AND OPERATION OF FACILITY. A facility generating or accumulating hazardous secondary material shall be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water that could threaten human health or the environment.

(2) REQUIRED EQUIPMENT. All facilities generating or accumulating hazardous secondary material shall be equipped with all of the following, unless none of the hazards posed

by hazardous secondary material handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction, voice or signal, to facility personnel.

(b) A device, such as a telephone, immediately available at the scene of operations, or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams.

(c) Portable fire extinguishers, fire control equipment, including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals; spill control equipment; and decontamination equipment.

(d) Water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems.

(3) TESTING AND MAINTENANCE OF EQUIPMENT. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

(4) ACCESS TO COMMUNICATIONS OR ALARM SYSTEM. (a) Whenever hazardous secondary material is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under sub. (2).

(b) If there is ever just one employee on the premises while the facility is operating, the employee shall have immediate access to a device, such as a telephone, available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under sub. (2).

(5) REQUIRED AISLE SPACE. The hazardous secondary material generator or intermediate or reclamation facility shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(6) ARRANGEMENTS WITH LOCAL AUTHORITIES. (a) The hazardous secondary material generator or an intermediate or reclamation facility shall attempt to make all of the following arrangements, as appropriate for the type of waste handled at the facility and the potential need for the services of these organizations:

1. Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous secondary material handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes.

2. Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police department and a specific fire department, and agreements with any others to provide support to the primary emergency authority.

3. Agreements with state emergency response teams, emergency response contractors, and equipment suppliers.

4. Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

(b) When state or local authorities decline to enter into such arrangements, the hazardous secondary material generator or an intermediate or reclamation facility shall document the refusal in the operating record.

NR 661.0411 Emergency procedures for facilities generating or accumulating 6,000 kg or less of hazardous secondary material. A generator or an intermediate or reclamation facility that generates or accumulates 6,000 kg or less of hazardous secondary material shall comply with all of the following requirements:

(1) At all times there shall be at least one employee either on the premises or on call and available to respond to an emergency by reaching the facility within a short period of time with the responsibility for coordinating all emergency response measures specified in sub. (4). This employee is the emergency coordinator.

(2) The generator or intermediate or reclamation facility shall post all of the following information next to the telephone:

(a) The name and telephone number of the emergency coordinator.

(b) Location of fire extinguishers and spill control material, and, if present, fire alarm.

(c) The telephone number of the fire department, unless the facility has a direct alarm.

(3) The generator or an intermediate or reclamation facility shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

(4) The emergency coordinator or the designee shall take the following actions that are applicable in to response to any emergencies that arise:

(a) In the event of a fire, call the fire department or attempt to extinguish the fire using a fire extinguisher.

(b) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil.

(c) In the event of a fire, explosion, or other release that could threaten human health outside the facility or when the generator or an intermediate or reclamation facility has knowledge that a spill has reached surface water, the generator or an intermediate or reclamation facility shall immediately notify the National Response Center using their 24-hour toll free number 800-424-8802. The notification shall include all of the following information:

1. The name, address, and EPA identification number of the facility.
2. Date, time, and type of incident, such as spill or fire.
3. Quantity and type of hazardous waste involved in the incident.
4. Extent of injuries, if any.
5. Estimated quantity and disposition of recovered materials, if any.

NR 661.0420 Contingency planning and emergency procedures for facilities generating or accumulating more than 6000 kg of hazardous secondary material. A generator or an intermediate or reclamation facility that generates or accumulates more than 6,000 kg of hazardous secondary material shall comply with all of the following requirements:

(1) PURPOSE AND IMPLEMENTATION OF CONTINGENCY PLAN. (a) Each generator or an intermediate or reclamation facility that accumulates more than 6,000 kg of hazardous secondary material shall have a contingency plan for the facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires,

explosions, or any unplanned sudden or non udden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water.

(b) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous secondary material or hazardous secondary material constituents that could threaten human health or the environment.

(2) CONTENT OF CONTINGENCY PLAN. (a) The contingency plan shall describe the actions facility personnel shall take to comply with subs. (1) and (6) in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water at the facility.

(b) If the generator or an intermediate or reclamation facility accumulating more than 6,000 kg of hazardous secondary material has already prepared a Spill Prevention, Control, and Countermeasures or SPCC Plan in accordance with 40 CFR part 112, or some other emergency or contingency plan, the generator or an intermediate or reclamation facility need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section. The hazardous secondary material generator or an intermediate or reclamation facility may develop one contingency plan that meets all regulatory requirements. The department recommends that the plan be based on the national response team's integrated contingency plan guidance or the "One Plan." When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

(c) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services, pursuant to s. NR 661.0410 (6).

(d) The plan shall list names and emergency telephone numbers of all persons qualified to act as emergency coordinator under sub. (5), and this list shall be kept up-to-date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

(e) The plan shall include a list of all emergency equipment at the facility, such as fire extinguishing systems, spill control equipment, internal and external communications and internal and external alarm systems, and decontamination equipment, where this equipment is

required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes in cases where the primary routes could be blocked by releases of hazardous waste or fires.

(3) COPIES OF CONTINGENCY PLAN. A copy of the contingency plan and all revisions to the plan shall be:

(a) Maintained at the facility.

(b) Submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

(4) AMENDMENT OF CONTINGENCY PLAN. The contingency plan shall be reviewed, and immediately amended, if necessary, whenever any the following occurs:

(a) Applicable regulations are revised.

(b) The plan fails in an emergency.

(c) The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous secondary material or hazardous secondary material constituents, or changes the response necessary in an emergency.

(d) The list of emergency coordinators changes.

(e) The list of emergency equipment changes.

(5) EMERGENCY COORDINATOR. At all times, there shall be at least one employee either on the facility premises or on call and available to respond to an emergency by reaching the facility within a short period of time with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in sub. (6). Applicable responsibilities for the emergency coordinator vary, depending on

factors such as type and variety of hazardous secondary material handled by the facility, and type and complexity of the facility.

(6) EMERGENCY PROCEDURES. (a) Whenever there is an imminent or actual emergency situation, the emergency coordinator, or the designee when the emergency coordinator is on call, shall immediately do all of the following:

1. Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel.

2. Notify appropriate state or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion, such as the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions.

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health, or the environment outside the facility, the emergency coordinator shall report their findings as follows:

1. If the emergency coordinator's assessment indicates that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated.

2. The emergency coordinator shall immediately notify either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center using their 24-hour toll free number 800-424-8802. The report shall include all of the following:

a. Name and telephone number of reporter.

b. Name and address of facility.

c. Time and type of incident, such as release or fire.

d. Name and quantity of material involved, to the extent known.

e. The extent of injuries, if any.

f. The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous secondary material at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released material, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered secondary material, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the hazardous secondary material generator can demonstrate, in accordance with s. NR 661.0003 (3) or (4), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements under chs. NR 662, 663, and 665.

(h) The emergency coordinator shall ensure that, in the affected area of the facility, all of the following conditions are met:

1. No secondary material that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed.

2. All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The hazardous secondary material generator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the hazardous secondary material generator shall submit a written report on the incident to the department. The report shall include all of the following:

1. Name, address, and telephone number of the hazardous secondary material generator.

2. Name, address, and telephone number of the facility.

3. Date, time, and type of incident, such as fire, explosion.

4. Name and quantity of material involved.

5. The extent of injuries, if any.

6. An assessment of actual or potential hazards to human health or the environment, where this is applicable.

7. Estimated quantity and disposition of recovered material that resulted from the incident.

(7) PERSONNEL TRAINING. All employees shall be thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

Subchapter AA — Air Emission Standards for Process Vents

NR 661.1030 Applicability. The regulations in this subchapter apply to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or stream stripping operations that manage hazardous secondary material excluded under the remanufacturing exclusion under s. NR 661.0004 (1) (za) with concentrations of at least 10 ppmw, unless the process vents are equipped with operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR parts 60, 61, or 63, or subject to NR 440, 446 subch. III and IV, or 447 to 469.

NR 661.1031 Definitions. As used in this subchapter:

(1) "Air stripping operation" means a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas or air either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

(2) "Bottoms receiver" means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

(3) "Closed-vent system" means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

(4) "Condenser" means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

(5) "Connector" means flanged, screwed, welded, or other joined fittings used to connect 2 pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

(6) "Continuous recorder" means a data-recording device recording an instantaneous data value at least once every 15 minutes.

(7) "Control device" means an enclosed combustion device, vapor recovery system, or flare. Any device whose primary function is the recovery or capture of solvents or other organics for use, reuse, or sale, such as a primary condenser on a solvent recovery unit, is not a control device.

(8) "Control device shutdown" means the cessation of operation of a control device for any purpose.

(9) "Distillate receiver" means a container or tank used to receive and collect liquid material, condensed, from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

(10) "Distillation operation" means an operation, either batch or continuous, separating one or more feed streams into 2 or more exit streams, each exit stream having component concentrations different from those in the feed streams. The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

(11) "Double block and bleed system" means 2 block valves connected in series with a bleed valve or line that can vent the line between the 2 block valves.

(12) "Equipment" means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required by this subchapter.

(13) "Flame zone" means the portion of the combustion chamber in a boiler occupied by the flame envelope.

(14) "Flow indicator" means a device that indicates whether gas flow is present in a vent stream.

(15) "First attempt at repair" means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

(16) "Fractionation operation" means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(17) "Hazardous secondary material management unit shutdown" means a work practice or operational procedure that stops operation of a hazardous secondary material management unit or part of a hazardous secondary material management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous secondary material management unit or part of a hazardous secondary material management unit for less than 24 hours is not a hazardous secondary material management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous secondary material management unit shutdowns.

(18) "Hot well" means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

(19) "In gas or vapor service" means that the piece of equipment contains or contacts a hazardous secondary material stream that is in the gaseous state at operating conditions.

(20) "In heavy liquid service" means that the piece of equipment is not in gas or vapor service or in light liquid service.

(21) "In light liquid service" means that the piece of equipment contains or contacts a material stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals or kPa at 20 °C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

(22) "In situ sampling systems" means nonextractive samplers or in-line samplers.

(23) "In vacuum service" means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

(24) "Malfunction" means any sudden failure of a control device or a hazardous secondary material management unit or failure of a hazardous secondary material management unit to operate in a normal or usual manner, so that organic emissions are increased.

(25) "Open-ended valve or line" means any valve, except pressure relief valves, having one side of the valve seat in contact with hazardous secondary material and one side open to the atmosphere, either directly or through open piping.

(26) "Pressure release" means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

(27) "Process heater" means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

(28) "Process vent" means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank, such as distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well, associated with hazardous secondary material distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

(29) "Repaired" means that equipment is adjusted, or otherwise altered, to eliminate a leak.

(30) "Sampling connection system" means an assembly of equipment within a process or material management unit used during periods of representative operation to take samples of the process or material fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

(31) "Sensor" means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

(32) "Separator tank" means a device used for separation of 2 immiscible liquids.

(33) "Solvent extraction operation" means an operation or method of separation in which a solid or solution is contacted with a liquid solvent, the 2 being mutually insoluble, to preferentially dissolve and transfer one or more components into the solvent.

(34) "Startup" means the setting in operation of a hazardous secondary material management unit or control device for any purpose.

(35) "Steam stripping operation" means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

(36) "Surge control tank" means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

(37) "Thin-film evaporation operation" means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(38) "Vapor incinerator" means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

(39) "Vented" means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading, working losses, or by natural means such as diurnal temperature changes.

NR 661.1032 Standards: process vents. (1) A remanufacturer or other person that stores or treats hazardous secondary material in hazardous secondary material management units with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous secondary material with organic concentrations of at least 10 ppmw shall do one of the following:

(a) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr).

(b) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

(2) If a remanufacturer or other person that stores or treats hazardous secondary material installs a closed-vent system and control device to comply with the provisions of sub. (1) the closed-vent system and control device shall meet the requirements specified in s. NR 661.1033.

(3) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests shall conform with the requirements specified in s. NR 661.1034 (3).

(4) When a remanufacturer or other person that stores or treats hazardous secondary material and the department do not agree on determinations of vent emissions or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the procedures specified in s. NR 661.1034 (3) shall be used to resolve the disagreement.

NR 661.1033 Standards: closed-vent systems and control devices. (1) (a) A remanufacturer or other person that stores or treats hazardous secondary material in hazardous secondary material management units using closed-vent systems and control devices used to comply with provisions of this part shall comply with the provisions of this section.

(2) A control device involving vapor recovery, such as a condenser or adsorber, shall be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits specified in s. NR 661.1032 (1) (a) for all affected process vents can be attained at an efficiency less than 95 weight percent.

(3) An enclosed combustion device, such as a vapor incinerator, boiler, or process heater, shall be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C. If a boiler or process heater is used as the control device, the vent stream shall be introduced into the flame zone of the boiler or process heater.

(4) (a) A flare shall be designed for and operated with no visible emissions as determined by the methods specified in sub. (5) (a), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(b) A flare shall be operated with a flame present at all times, as determined by the methods specified in sub. (6) (b) 3.

(c) A flare shall be used only if the net heating value of the gas being combusted is 11.2 MJ/scm or greater if the flare is steam-assisted or air-assisted; or if the net heating value of the gas being combusted is 7.45 MJ/scm or greater if the flare is non-assisted. The net heating value of the gas being combusted shall be determined by the methods specified in sub (5) (b).

Note: 1 megajoule/meter^3 [MJ/m^3] = 26.8391919932 Btu (IT)/foot^3 [Btu/ft^3].

(d) 1. Except as provided in subs. (4) (d) 2. and 3., a steam-assisted or nonassisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in sub. (5) (c), less than 18.3 m/s.

2. A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in sub. (5) (c), equal to or greater than 18.3 m/s but less than 122 m/s is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm.

3. A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in sub. (5) (c), less than the velocity, V_{max}, as determined by the method specified in sub (5) (d) and less than 122 m/s is allowed.

(e) An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, V_{max}, as determined by the method specified in sub. (5) (e).

(f) A flare used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(5) (a) Reference Method 22 in 40 CFR part 60, incorporated by reference in s. NR 660.11, shall be used to determine the compliance of a flare with the visible emission provisions of this subchapter. The observation period is 2 hours and shall be used according to Method 22.

(b) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K\{\sum_{i=1}^{n} C_i H_i\}$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mol is 20 °C.

K = Constant, 1.74×10^{-7} (1/ppm) (g mol/scm) (MJ/kcal) where standard temperature for (g mol/scm) is 20 °C.

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in chapter 60 and measured for hydrogen and carbon monoxide by ASTM D 1946-82, incorporated by reference in s. NR 660.11.

H_i = Net heat of combustion of sample component i, kcal/9 mol at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D 2382-83, incorporated by reference in s. NR 660.11, if published values are not available or cannot be calculated.

(c) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate, in units of standard temperature and pressure, as determined by Reference Methods 2, 2A, 2C or 2D in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11, as appropriate, by the unobstructed, free, cross−sectional area of the flare tip.

(d) The maximum allowed velocity in m/s, V_{max}, for a flare complying with sub. (4) (d) 3. shall be determined by the following equation:

$$Log_{10}(V_{max}) = (H_T + 28.8)/31.7$$

Where:

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in par. (b).

(e) The maximum allowed velocity in m/s, V_{max}, for an air-assisted flare shall be determined by the following equation:

$$V_{max} = 8.706 + 0.7084 (H_T)$$

Where:

8.706 = Constant

0.7084 = Constant

H_T = The net heating value as determined in par. (b).

(6) A remanufacturer or other person that stores or treats hazardous secondary material shall monitor and inspect each control device required to comply with this section to ensure proper operation and maintenance of the control device by implementing all of the following requirements:

(a) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.

(b) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

1. For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.

2. For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at 2 locations and have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

3. For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

4. For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone.

5. For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter that indicates good combustion operating practices are being used.

6. For a condenser, one of the following:

a. A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser.

b. A temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit or product side.

7. For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, one of the following:

a. A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed.

b. A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

(c) Inspect the readings from each monitoring device required under pars. (a) and (b) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this section.

(7) A remanufacturer or other person that stores or treats hazardous secondary material in a hazardous secondary material management unit using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement under s. NR 661.1035 (2) (d) 3. f.

(8) A remanufacturer or other person that stores or treats hazardous secondary material in a hazardous secondary material management unit using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

(a) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency

shall be daily or at an interval no greater than 20% of the time required to consume the total carbon working capacity established as a requirement under s. NR 661.1035 (2) (d) 3. g., whichever is longer.

(b) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement under s. NR 661.1035 (2) (d) 3. g.

(9) An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.

(10) A remanufacturer or other person that stores or treats hazardous secondary material at an affected facility seeking to comply with the provisions of this chapter by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.

(11) A closed-vent system shall meet one of the following design requirements:

(a) A closed-vent system shall be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedure specified in s. NR 661.1034 (2), and by visual inspections.

(b) A closed-vent system shall be designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(12) A remanufacturer or other person that stores or treats hazardous secondary material shall monitor and inspect each closed-vent system required to comply with this section to ensure proper operation and maintenance of the closed-vent system by implementing all of the following requirements:

(a) Each closed-vent system that is used to comply with sub. (11) (a) shall be inspected and monitored in accordance with all of the following requirements:

1. An initial leak detection monitoring of the closed-vent system shall be conducted by the remanufacturer or other person that stores or treats the hazardous secondary material on or

before the date that the system becomes subject to this section. The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor the closed-vent system components and connections using the procedures specified in s. NR 661.1034 (2) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

2. After initial leak detection monitoring required in subd. 1., the remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the closed-vent system as follows:

a. Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed, such as a welded joint between 2 sections of hard piping or a bolted and gasketed ducting flange, shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor a component or connection using the procedures specified in s. NR 661.1034 (2) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced, such as when a section of damaged hard piping is replaced with new hard piping, or the connection is unsealed, such as an unbolted flange.

b. Closed-vent system components or connections other than those specified in subd. 2. a. shall be monitored annually and at other times as requested by the department, except as provided for under sub. (15), using the procedures specified in s. NR 661.1034 (2) to demonstrate that the components or connections operate with no detectable emissions.

3. In the event that a defect or leak is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect or leak in accordance with the requirements under par. (c).

4. The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection and monitoring in accordance with the requirements specified in s. NR 661.1035.

(b) Each closed-vent system that is used to comply with sub. (11) (b) shall be inspected and monitored in accordance with all of the following requirements:

1. The closed-vent system shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result

in air pollutant emissions. Defects include visible cracks, holes, or gaps in ductwork or piping or loose connections.

2. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this section. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year.

3. In the event that a defect or leak is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements under par. (c).

4. The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection and monitoring in accordance with the requirements specified in s. NR 661.1035.

(c) The remanufacturer or other person that stores or treats the hazardous secondary material shall repair all detected defects according to all of the following:

1. Detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as specified in subd. 3.

2. A first attempt at repair shall be made no later than 5 calendar days after the emission is detected.

3. Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the remanufacturer or other person that stores or treats the hazardous secondary material determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

4. The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the defect repair in accordance with the requirements specified in s. NR 661.1035.

(13) Closed-vent systems and control devices used to comply with provisions of this subchapter shall be operated at all times when emissions may be vented to them.

(14) An owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the average volatile organic concentration of the carbon:

(a) Regenerated or reactivated in a thermal treatment unit that meets one of the following:

1. The owner or operator of the unit has been issued a final license under ch. NR 670 that implements the requirements specified in subchapter X.

2. The unit is equipped with and operating air emission controls in accordance with the applicable requirements specified in subchs. AA and CC of either this chapter or of ch. NR 665.

3. The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR part 61 or part 63, or corresponding provisions under subch. III and IV of ch. NR 446 and chs. NR 447 to 469.

(b) Incinerated in a hazardous waste incinerator for which any of the following conditions has been met:

1. The owner or operator has been issued an operating license under ch. NR 670 that implements the requirements specified in subchapter O.

2. The owner or operator has designed and operates the incinerator in accordance with the interim status requirements specified in ch. NR 665, subch. O.

(c) Burned in a boiler or industrial furnace for which any of the following conditions has been met:

1. The owner or operator has been issued an operating license under ch. NR 670 that implements the requirements specified in ch. NR 666, subch. H.

2. The owner or operator has designed and operates the boiler or industrial furnace in accordance to the interim license requirements specified in ch. NR 666, subch. H.

(15) Any components of a closed-vent system that are designated, as described in s. NR 661.1035 (3) (i), as unsafe to monitor are exempt from the requirements specified in sub. (12) (a) 2. b. if the remanufacturer or other person does all of the following:

(a) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using a closed-vent system determines that the components of the closed-vent system are unsafe to monitor because

monitoring personnel would be exposed to an immediate danger as a consequence of complying with sub. (12) (a) 2. b.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using a closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in sub. (12) (a) 2. b. as frequently as practicable during safe-to-monitor times.

NR 661.1034 Test methods and procedures. (1) A remanufacturer or other person that stores or treats hazardous secondary material subject to the provisions of this subchapter shall comply with the test methods and procedural requirements provided in this section.

(2) When a closed-vent system is tested for compliance with no detectable emissions, as required under s. NR 661.1033 (12), the test shall comply with all of the following requirements:

(a) Monitoring shall comply with Reference Method 21 in appendix A of 40 CFR chapter 60, incorporated by reference in s. NR 660.11.

(b) The detection instrument shall meet the performance criteria of Reference Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(c) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(d) Calibration gases shall be:

1. Zero air of less than 10 ppm of hydrocarbon in air.

2. A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(e) The background level shall be determined as set forth in Reference Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(f) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(g) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(3) Performance tests to determine compliance with s. NR 661.1032 (1) and with the total organic compound concentration limit specified in s. NR 661.1033 (3) shall comply with all of the following:

(a) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices shall be conducted and data reduced in accordance with all of the following reference methods and calculation procedures:

1. Method 2 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11, for velocity and volumetric flow rate.

2. Method 18 or Method 25A in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11, for organic content. If Method 25A is used, the organic HAP used as the calibration gas shall be the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

3. Each performance test shall consist of 3 separate runs. Each run shall be conducted for at least 1 hour under the conditions that exist when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs shall apply. The average shall be computed on a time-weighted basis.

4. Total organic mass flow rates shall be determined by one of the following equations:

a. For sources utilizing Method 18.

$$E_h = Q_{2sd}\left\{\sum_{i=1}^{n} C_i MW_i\right\}[0.0416]\left[10^{-6}\right]$$

Where:

E_h= Total organic mass flow rate, kg/h

Q_{2sd}= Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h

n = Number of organic compounds in the vent gas

C_i= Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18

MW_i= Molecular weight of organic compound i in the vent gas, kg/kg-mol

0.0416 = Conversion factor for molar volume, kg-mol/m3 (@293 K and 760 mm Hg)

10^{-6} = Conversion from ppm

b. For sources utilizing Method 25A.

$E_h = (Q)(C)(MW)(0.0416)(10^{-6})$

Where:

E_h= Total organic mass flow rate, kg/h

Q = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h

C = Organic concentration in ppm, dry basis, as determined by Method 25A

MW = Molecular weight of propane, 44

0.0416 = Conversion factor for molar volume, kg-mol/m3 (@293 K and 760 mm Hg)

10^{-6} = Conversion from ppm.

5. The annual total organic emission rate shall be determined by the following equation:

$E_A = (E_h)(H)$

Where:

E_A = Total organic mass emission rate, kg/y

E_h = Total organic mass flow rate for the process vent, kg/h

H = Total annual hours of operations for the affected unit, h

6. Total organic emissions from all affected process vents at the facility shall be determined by summing the hourly total organic mass emission rates, E_h, as determined in subd. 4., and by summing the annual total organic mass emission rates, E_A, as determined in subd. 5., for all affected process vents at the facility.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall record process information that may be necessary to determine the conditions of

the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(c) The remanufacturer or other person that stores or treats the hazardous secondary material at an affected facility shall provide, or cause to be provided, all of the following performance testing facilities:

1. Sampling ports adequate for the test methods specified in par. (a).

2. Safe sampling platform.

3. Safe access to sampling platform.

4. Utilities for sampling and testing equipment.

(d) For the purpose of making compliance determinations, the time-weighted average of the results of the 3 runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the 3 runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the control of the remanufacturer or other person that stores or treats the hazardous secondary material, compliance may, upon the department's approval, be determined using the average of the results of the 2 other runs.

(4) To show that a process vent associated with a hazardous secondary material distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this subchapter, the remanufacturer or other person that stores or treats the hazardous secondary material shall make an initial determination that the time-weighted, annual average total organic concentration of the material managed by the hazardous secondary material management unit is less than 10 ppmw using one of the following 2 methods:

(a) Direct measurement of the organic concentration of the material using all of the following procedures:

1. The remanufacturer or other person that stores or treats the hazardous secondary material shall take a minimum of 4 grab samples of material for each material stream managed in the affected unit under process conditions expected to cause the maximum material organic concentration.

2. For material generated onsite, the grab samples shall be collected at a point before the material is exposed to the atmosphere such as in an enclosed pipe or other closed system that is

used to transfer the material after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For material generated offsite, the grab samples shall be collected at the inlet to the first material management unit that receives the material, provided the material has been transferred to the facility in a closed system such as a tank truck and the material is not diluted or mixed with other material.

3. Each sample shall be analyzed and the total organic concentration of the sample shall be computed using Method 9060A of EPA SW−846 of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, incorporated by reference in s. NR 660.11, or analyzed for its individual organic constituents.

4. The arithmetic mean of the results of the analyses of the 4 samples shall apply for each material stream managed in the unit in determining the time-weighted, annual average total organic concentration of the material. The time-weighted average shall be calculated using the annual quantity of each material stream processed and the mean organic concentration of each material stream managed in the unit.

(b) Using knowledge of the material to determine that its total organic concentration is less than 10 ppmw. Documentation of the material determination is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the material is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a material stream having a total organic content less than 10 ppmw, or prior speciation analysis results on the same material stream where it can also be documented that no process changes have occurred since that analysis that could affect the material total organic concentration.

(5) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations manage hazardous secondary material with time-weighted, annual average total organic concentrations less than 10 ppmw shall be made by the remanufacturer or other person in accordance with all the following:

(a) By the effective date that the facility becomes subject to the provisions of this subchapter or by the date when the material is first managed in a hazardous secondary material management unit, whichever is later.

(b) Annually for continuously generated material, or whenever there is a change in the material being managed or a change in the process that generates or treats the material.

(6) When a remanufacturer or other person that stores or treats the hazardous secondary material and the department do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous secondary material with organic concentrations of at least 10 ppmw based on knowledge of the material, the dispute may be resolved by using direct measurement as specified in sub. (4) (a).

NR 661.1035 Recordkeeping requirements. (1) (a) A remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this subchapter shall comply with the recordkeeping requirements of this section.

(b) A remanufacturer or other person that stores or treats the hazardous secondary material of more than one hazardous secondary material management unit subject to the provisions of this subchapter may comply with the recordkeeping requirements for these hazardous secondary material management units in one recordkeeping system if the system identifies each record by each hazardous secondary material management unit.

(2) A remanufacturer or other person that stores or treats the hazardous secondary material shall keep all of the following records on-site:

(a) For facilities that comply with the provisions specified in s. NR 661.1033 (1) (b), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule shall also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule shall be kept on-site at the facility by the effective date that the facility becomes subject to the provisions of this subchapter.

(b) Up-to-date documentation of compliance with the process vent standards specified in s. NR 661.1032, including all of the following:

1. Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility, and the approximate location within the facility of each affected unit, such as identifying the hazardous secondary material management units on a facility plot plan.

2. Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions shall be made using operating parameter values, such as temperatures, flow rates, or vent stream organic compounds and concentrations, that represent the conditions that result in maximum organic emissions, such as when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. If the remanufacturer or other person that stores or treats the hazardous secondary material takes any action, such as managing a material of different composition or increasing operating hours of affected hazardous secondary material management units, that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

(c) When a remanufacturer or other person that stores or treats the hazardous secondary material chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan shall be developed and include all of the following:

1. A description of how it is determined that the planned test is going to be conducted when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. This shall include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

2. A detailed engineering description of the closed-vent system and control device including all of the following:

a. Manufacturer's name and model number of control device.

b. Type of control device.

c. Dimensions of the control device.

d. Capacity.

e. Construction materials.

3. A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(d) Documentation of compliance with s. NR 661.1033 including all of the following information:

1. A list of all information references and sources used in preparing the documentation.

2. Records, including the dates, of each compliance test required under s. NR 661.1033 (11).

3. If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions", incorporated by reference in s. NR 660.11, or other engineering texts acceptable to the department that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with this subd. may be used to comply with this requirement. The design analysis shall address the vent stream characteristics and control device operation parameters as follows:

a. For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

b. For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

c. For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the combustion zone.

d. For a flare, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also consider the requirements specified in s. NR 661.1033 (4).

e. For a condenser, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic compound concentration level, design average

temperature of the condenser exhaust vent stream, and design average temperatures of the coolant fluid at the condenser inlet and outlet.

f. For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling or drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon.

g. For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

4. A statement signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous secondary material management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

5. A statement signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit specified in s. NR 661.1032 (1) is achieved at an efficiency less than 95 weight percent or the total organic emission limits specified in s. NR 661.1032 (1) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

6. If performance tests are used to demonstrate compliance, all test results.

(3) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of this section shall be recorded and kept up-to-date at the facility. The information shall include all of the following:

(a) Description and date of each modification that is made to the closed-vent system or control device design.

(b) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with s. NR 661.1033 (6) (a) and (b).

(c) Monitoring, operating, and inspection information required under s. NR 661.1033 (6) to (11).

(d) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as follows:

1. For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760 °C, period when the combustion temperature is below 760 °C.

2. For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, period when the combustion zone temperature is more than 28 °C below the design average combustion zone temperature established as a requirement under sub. (2) (d) 3. a.

3. For a catalytic vapor incinerator, period when any of the following occur:

a. Temperature of the vent stream at the catalyst bed inlet is more than 28 °C below the average temperature of the inlet vent stream established as a requirement under sub. (2) (d) 3. b.

b. Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement under sub. (2) (d) 3. b.

4. For a boiler or process heater, period when any of the following occur:

a. Flame zone temperature is more than 28 °C below the design average flame zone temperature established as a requirement under sub. (2) (d) 3. c.

b. Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement under sub. (2) (d) 3. c.

5. For a flare, period when the pilot flame is not ignited.

6. For a condenser that complies with s. NR 661.1033 (6) (b) 6. a., period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement under sub. (2) (d) 3. e.

7. For a condenser that complies with s. NR 661.1033 (6) (b) 6. b., period when any of the following occur:

a. Temperature of the exhaust vent stream from the condenser is more than 6 °C above the design average exhaust vent stream temperature established as a requirement under sub. (2) (d) 3. e.

b. Temperature of the coolant fluid exiting the condenser is more than 6 °C above the design average coolant fluid temperature at the condenser outlet established as a requirement under sub. (2) (d) 3. e.

8. For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device and complies with s. NR 661.1033 (6) (b) 7. a., period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement under sub. (2) (d) 3. f.

9. For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device and complies with s. NR 661.1033 (6) (b) 7. b., period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement under sub. (2) (d) 3. f.

(e) Explanation for each period recorded under par. (d) of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.

(f) For a carbon adsorption system operated subject to requirements specified in s. NR 661.1033 (7) or (8) (b), date when existing carbon in the control device is replaced with fresh carbon.

(g) For a carbon adsorption system operated subject to requirements specified in s. NR 661.1033 (8) (a), a log that records all of the following:

1. Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.

2. Date when existing carbon in the control device is replaced with fresh carbon.

(h) Date of each control device startup and shutdown.

(i) A remanufacturer or other person that stores or treats the hazardous secondary material designating any components of a closed-vent system as unsafe to monitor pursuant to s. NR 661.1033 (15) shall record in a log that is kept at the facility the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements under s. NR 661.1033 (15), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.

(j) When each leak is detected as specified in s. NR 661.1033 (12), all of the following information shall be recorded:

1. The instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number.

2. Date the leak was detected and the date of first attempt to repair the leak.

3. Date of successful repair of the leak.

4. Maximum instrument reading measured by Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11, after it is successfully repaired or determined to be nonrepairable.

5. The words “Repair delayed” and the reason for the delay if the leak was not repaired within 15 calendar days after discovery of the leak. Documentation of the delay may include:

a. The remanufacturer or other person that stores or treats the hazardous secondary material may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

b. If delay of repair was caused by depletion of stocked parts, the remanufacturer or other person that stores or treats the hazardous secondary material shall document that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(4) Records of the monitoring, operating, and inspection information required under sub. (3) (c) to (j) shall be maintained by the remanufacturer or other person for at least 3 years following the date of each occurrence, measurement, maintenance, corrective action, or record.

(5) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the remanufacturer or other person shall record monitoring and inspection information indicating proper operation and maintenance of the control device in the facility operating record.

(6) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in s. NR 661.1032 including supporting documentation as required by s. NR 661.1034 (4) (b) when application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced is used, shall be recorded by the remanufacturer or other person in a log that is kept at the facility.

Subchapter BB — Air Emission Standards for Equipment Leaks

NR 661.1050 Applicability. (1) The regulations in this subchapter apply to equipment that contains hazardous secondary material excluded under the remanufacturing exclusion under s. NR 661.4 (1) (za), unless the equipment operations are subject to the requirements of an applicable Clean Air Act regulation codified under 40 CFR parts 60, 61, or 63, or subject to NR 440, 446 subch. III and IV, or 447 to 469.

NR 661.1051 Definitions. As used in this subchapter, all terms shall have the meaning given in s. NR 661.1031, ch. 291, Stats., and chs. NR 660 to 666.

NR 661.1052 Standards: pumps in light liquid service. (1) (a) Except as provided in subs. (4) to (6), the remanufacturer or other person shall monitor each pump in light liquid service monthly to detect leaks by the methods specified in s. NR 661.1063 (2),.

(b) The remanufacturer or other person shall check each pump in light liquid service by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(2) (a) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(b) If there are indications of liquids dripping from the pump seal, a leak is detected.

(3) (a) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in s. NR 661.1059.

(b) A first attempt at repair, such as tightening the packing gland, shall be made no later than 5 calendar days after each leak is detected.

(4) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements under sub. (1), provided all of the following requirements are met:

(a) Each dual mechanical seal system shall be one of the following:

1. Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure.

2. Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements specified in s. NR 661.1060.

3. Equipped with a system that purges the barrier fluid into a hazardous secondary material stream with no detectable emissions to the atmosphere.

(b) The barrier fluid system shall not be a hazardous secondary material with organic concentrations 10 percent or greater by weight.

(c) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(d) Each pump shall be checked the remanufacturer or other person by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(e) 1. Each sensor as described in par. (c) shall be checked the remanufacturer or other person daily or be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly.

2. A remanufacturer or other person that stores or treats the hazardous secondary material shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) 1. If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in par. (e) 2., a leak is detected.

2. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in s. NR 661.1059.

3. A first attempt at repair, such as relapping the seal, shall be made no later than 5 calendar days after each leak is detected.

(5) Any pump that is designated, as described in s. NR 661.1064 (7) (b), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements under subs (1), (3), and (4) if the pump meets all of the following requirements:

(a) Has no externally actuated shaft penetrating the pump housing.

(b) Operates with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in s. NR 661.1063 (3).

(c) Is tested for compliance with par. (b) initially upon designation, annually, and at other times as requested by the department.

(6) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements specified in s. NR 661.1060, it is exempt from the requirements specified in subs. (1) to (5).

NR 661.1053 Standards: compressors. (1) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in subs. (8) and (9).

(2) Each compressor seal system as required under sub. (1) shall meet one of the following conditions:

(a) Operate with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure

(b) Be equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements specified in s. NR 661.1060.

(c) Be equipped with a system that purges the barrier fluid into a hazardous secondary material stream with no detectable emissions to atmosphere.

(3) The barrier fluid shall not be a hazardous secondary material with organic concentrations 10 percent or greater by weight.

(4) Each barrier fluid system as described in subs. (1) to (3) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(5) (a) Each sensor as required in sub. (4) shall be checked by the remanufacturer or other person daily or shall be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor shall be checked daily.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under sub. (5) (b), a leak is detected.

(7) (a) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided under s. NR 661.1059.

(b) A first attempt at repair, such as tightening the packing gland, shall be made no later than 5 calendar days after each leak is detected.

(8) A compressor is exempt from the requirements under subs. (1) and (2) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements specified in s. NR 661.1060, except as provided in sub. (9).

(9) Any compressor that is designated, as described in s. NR 661.1064 (7) (b), for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background is exempt from subs (1) to (8) if the compressor meets all of the following requirements:

(a) Is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in s. NR 661.1063 (3).

(b) Is tested for compliance with par. (a) initially upon designation, annually, and at other times as requested by the department.

NR 661.1054 Standards: pressure relief devices in gas/vapor service. (1) Except during pressure releases, each pressure relief device in gas or vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in s. NR 661.1063 (3).

(2) (a) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in s. NR 661.1059.

(b) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in s. NR 661.1063 (3).

(3) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in s. NR 661.1060 is exempt from the requirements under subs. (1) and (2).

NR 661.1055 Standards: sampling connection systems. (1) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system. This system shall collect the sample purge for return to the process or for routing to the appropriate treatment system. Gases displaced during filling of the sample container are not required to be collected or captured.

(2) Each closed-purge, closed-loop, or closed-vent system as required in sub. (1) shall meet one of the following requirements:

(a) Return the purged process fluid directly to the process line.

(b) Collect and recycle the purged process fluid.

(c) Be designed and operated to capture and transport all the purged process fluid to a material management unit that complies with the applicable requirements specified in s. NR 661.1084 to 664.1086 or a control device that complies with the requirements specified in s. NR 661.1060.

(3) In-situ sampling systems and sampling systems without purges are exempt from the requirements under subs. (1) and (2).

NR 661.1056 Standards: open-ended valves or lines. (1) (a) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

(b) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous secondary material stream flow through the open-ended valve or line.

(2) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous secondary material stream end is closed before the second valve is closed.

(3) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with sub. (1) at all other times.

NR 661.1057 Standards: valves in gas/vapor service or in light liquid service. (1) Each valve in gas or vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in s. NR 661.1063 (2) and shall comply with subs. (2) to (5), except as provided in subs. (6) to (8) and ss. NR 661.1061 and 661.1062.

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) (a) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

(b) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months,

(4) (a) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in s. NR 661.1059.

(b) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(5) First attempts at repair include the following best practices where practicable:

(a) Tightening of bonnet bolts.

(b) Replacement of bonnet bolts.

(c) Tightening of packing gland nuts.

(d) Injection of lubricant into lubricated packing.

(6) Any valve that is designated, as described in s. NR 661.1064 (7) (b), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above

background, is exempt from the requirements under sub. (1) if the valve meets all of the following requirements:

(a) Has no external actuating mechanism in contact with the hazardous secondary material stream.

(b) Is operated with emissions less than 500 ppm above background as determined by the method specified in s. NR 661.1063 (3).

(c) Is tested for compliance with par. (b) initially upon designation, annually, and at other times as requested by the department.

(7) Any valve that is designated, as described in s. NR 661.1064 (8) (a), as an unsafe-to-monitor valve is exempt from the requirements under sub. (1) if all of the following requirements are met:

(a) The remanufacturer or other person that stores or treats the hazardous secondary material determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with sub. (1).

(b) The remanufacturer or other person that stores or treats the hazardous secondary material adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(8) Any valve that is designated, as described in s. NR 661.1064 (8) (b), as a difficult-to-monitor valve is exempt from the requirements under sub. (1) if all of the following requirements are met:

(a) The remanufacturer or other person that stores or treats the hazardous secondary material determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(b) The hazardous secondary material management unit within which the valve is located was in operation before January 13, 2015.

(c) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

NR 661.1058 Standards: pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors. (1) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service,

and flanges and other connectors shall be monitored within 5 days by the method specified in s. NR 661.1063 (2) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) (a) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in s. NR 661.1059.

(b) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(4) First attempts at repair include the best practices described under s. NR 661.1057 (5).

(5) Any connector that is inaccessible or is ceramic or ceramic-lined, such as porcelain, glass, or glass-lined, is exempt from the monitoring requirements under sub. (1) and from the recordkeeping requirements specified in s. NR 661.1064.

NR 661.1059 Standards: delay of repair. (1) Delay of repair of equipment for which leaks have been detected is allowed if the repair is technically infeasible without a hazardous secondary material management unit shutdown. In such a case, repair of this equipment shall occur before the end of the next hazardous secondary material management unit shutdown.

(2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the hazardous secondary material management unit and that does not continue to contain or contact hazardous secondary material with organic concentrations at least 10 percent by weight.

(3) Delay of repair for valves is allowed if all of the following conditions are met:

(a) The remanufacturer or other person that stores or treats the hazardous secondary material determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

(b) When repair procedures are affected, the purged material is collected and destroyed or recovered in a control device complying with s. NR 661.1060.

(4) Delay of repair for pumps is allowed if all of the following conditions are met:

(a) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system.

(b) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(5) Delay of repair beyond a hazardous secondary material management unit shutdown is allowed for a valve if valve assembly replacement is necessary during the hazardous secondary material management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous secondary material management unit shutdown is not allowed unless the next hazardous secondary material management unit shutdown occurs sooner than 6 months after the first hazardous secondary material management unit shutdown.

NR 661.1060 Standards: closed-vent systems and control devices. (1) A remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using closed-vent systems and control devices subject to this subchapter shall comply with s. NR 661.1033.

(2) (a) A remanufacturer or other person that stores or treats the hazardous secondary material at an existing facility who cannot install a closed-vent system and control device to comply with the provisions of this subchapter on the effective date that the facility becomes subject to the provisions of this subchapter shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls shall be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this subchapter for installation and startup.

(b) Any unit that begins operation after July 13, 2015 and is subject to the provisions of this subchapter when operation begins, shall comply with the rules immediately. The 30-month implementation schedule does not apply.

(c) The remanufacturer or other person that stores or treats the hazardous secondary material at any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this subchapter shall comply with all requirements of this subchapter as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by this subchapter cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an

implementation schedule that includes specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this subchapter. The remanufacturer or other person that stores or treats the hazardous secondary material shall keep a copy of the implementation schedule at the facility.

(d) A remanufacturer or other person that stores or treats the hazardous secondary material at facilities and units that become newly subject to the requirements of this subchapter after January 13, 2015, due to an action other than those described in par. (c) shall comply with all applicable requirements immediately.

NR 661.1061 Alternative standards for valves in gas/vapor service or in light liquid service: percentage of valves allowed to leak. (1) A remanufacturer or other person that stores or treats hazardous secondary material subject to the requirements specified in s. NR 661.1057 may elect to have all valves within a hazardous secondary material management unit comply with an alternative standard that allows no greater than 2 percent of the valves to leak.

(2) The following requirements shall be met if a remanufacturer or other person that stores or treats the hazardous secondary material decides to comply with the alternative standard of allowing 2 percent of valves to leak:

(a) A performance test as specified in sub. (3) shall be conducted initially upon designation, annually, and at other times requested by the department.

(b) If a valve leak is detected, it shall be repaired in accordance with s. NR 661.1057 (4) and (5).

(3) Performance tests shall be conducted in the following manner:

(a) All valves subject to the requirements specified in s. NR 661.1057 within the hazardous secondary material management unit shall be monitored within 1 week by the methods specified in s. NR 661.1063 (2).

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c) The leak percentage shall be determined by dividing the number of valves subject to the requirements specified in s. NR 661.1057 for which leaks are detected by the total number of

valves subject to the requirements specified in s. NR 661.1057 within the hazardous secondary material management unit.

NR 661.1062 Alternative standards for valves in gas/vapor service or in light liquid service: skip period leak detection and repair. (1) A remanufacturer or other person that stores or treats hazardous secondary material subject to the requirements specified in s. NR 661.1057 may elect for all valves within a hazardous secondary material management unit to comply with one of the alternative work practices specified in sub. (2) (b) and (c).

(2) (a) A remanufacturer or other person that stores or treats hazardous secondary material shall comply with the requirements for valves, as described in s. NR 661.1057, except as described in pars. (b) and (c).

(b) After 2 consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, a remanufacturer or other person that stores or treats the hazardous secondary material may begin to skip one of the quarterly leak detection periods and monitor for leaks once every 6 months for the valves subject to the requirements specified in s. NR 661.1057.

(c) After 5 consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, a remanufacturer or other person that stores or treats the hazardous secondary material may begin to skip 3 of the quarterly leak detection periods and monitor for leaks once every year for the valves subject to the requirements specified in s. NR 661.1057.

(d) If the percentage of valves leaking is greater than 2 percent, the remanufacturer or other person that stores or treats the hazardous secondary material shall monitor monthly in compliance with the requirements specified in s. NR 661.1057, but may again elect to use this section after meeting the requirements specified in s. NR 661.1057 (3) (a).

NR 661.1063 Test methods and procedures. (1) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this subchapter shall comply with the test methods and procedures requirements provided in this section.

(2) Leak detection monitoring, as required in ss. NR 661.1052 to 661.1062, shall comply with all of the following requirements:

(a) Monitoring shall comply with Reference Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(b) The detection instrument shall meet the performance criteria of Reference Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(c) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(d) Calibration gases shall be all of the following:

1. Zero air of less than 10 ppm of hydrocarbon in air.

2. A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(e) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(3) When equipment is tested for compliance with no detectable emissions, as required in ss. NR 661.1052 (5), 661.1053 (9), 661.1054, and 661.1057 (6), the test shall comply with all of the following requirements:

(a) Comply with sub. (2) (a) to (d).

(b) The background level shall be determined as set forth in Reference Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(c) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(d) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(4) A remanufacturer or other person that stores or treats the hazardous secondary material shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous secondary material with organic concentration that equals or exceeds 10 percent by weight using any of the following:

(a) Methods described in ASTM Methods D 2267-88, E 169-87, E 168-88, E 260-85, incorporated by reference in s. NR 660.11.

(b) Analyze each sample and compute the total organic concentration of the sample using Method 9060A of EPA SW−846, incorporated by reference in s. NR 660.11, or analyze for its individual organic constituents.

(c) Application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced. Documentation of a material determination by knowledge is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the material is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same material stream when it can also be documented that no process changes have occurred since that analysis that could affect the material total organic concentration.

(5) If a remanufacturer or other person that stores or treats the hazardous secondary material determines that a piece of equipment contains or contacts a hazardous secondary material with organic concentrations at least 10 percent by weight, the determination may be revised only after following the procedures specified in sub. (4) (a) or (b).

(6) When a remanufacturer or other person that stores or treats the hazardous secondary material and the department do not agree on whether a piece of equipment contains or contacts a hazardous secondary material with organic concentrations at least 10 percent by weight, the procedures specified in sub (4) (a) or (b) may be used to resolve the dispute.

(7) Samples used in determining the percent organic content shall be representative of the highest total organic content hazardous secondary material that is expected to be contained in or contact the equipment.

(8) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents may be obtained from standard reference texts or may be determined by ASTM D-2879-86, incorporated by reference in s. NR 660.11.

(9) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction shall comply with the procedures specified in s. NR 661.1034 (3) (a) to (d).

NR 661.1064 Recordkeeping requirements. (1) (a) A remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this subchapter shall comply with the recordkeeping requirements of this section.

(b) A remanufacturer or other person that stores or treats the hazardous secondary material in more than one hazardous secondary material management unit subject to the provisions of this subchapter may comply with the recordkeeping requirements for these hazardous secondary material management units in one recordkeeping system if the system identifies each record by each hazardous secondary material management unit.

(2) A remanufacturer or other person that stores or treats the hazardous secondary material shall record and keep all of the following information at the facility:

(a) For each piece of equipment to which this subchapter applies:

1. Equipment identification number and hazardous secondary material management unit identification.

2. Approximate locations within the facility, such as identification of the hazardous secondary material management unit on a facility plot plan.

3. Type of equipment, such as a pump or pipeline valve.

4. Percent-by-weight total organics in the hazardous secondary material stream at the equipment.

5. Hazardous secondary material state at the equipment, such as gas, vapor or liquid.

6. Method of compliance with the standard, such as "monthly leak detection and repair" or "equipped with dual mechanical seals".

(b) For facilities that comply with the provisions specified in s. NR 661.1033 (1) (b), an implementation schedule as specified in s. NR 661.1033 (1) (b).

(c) When a remanufacturer or other person that stores or treats the hazardous secondary material chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in s. NR 661.1035 (2) (c).

(d) Documentation of compliance with s. NR 661.1060, including the detailed design documentation or performance test results specified in s. NR 661.1035 (2) (d).

(3) When each leak is detected as specified in ss. NR 661.1052, 661.1053, 661.1057, and 661.1058, all of the following requirements apply:

(a) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with s. NR 661.1058 (1), and the date the leak was detected, shall be attached to the leaking equipment.

(b) The identification on equipment, except on a valve, may be removed after it has been repaired.

(c) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in s. NR 661.1057 (3) and no leak has been detected during those 2 months.

(4) When each leak is detected as specified in ss. NR 661.1052, 661.1053, 661.1057, and 661.1058, record all of the following information in an inspection log that shall be kept in the facility operating record:

(a) The instrument and operator identification numbers and the equipment identification number.

(b) The date evidence of a potential leak was found in accordance with s. NR 661.1058 (1).

(c) The date the leak was detected and the dates of each attempt to repair the leak.

(d) Repair methods applied in each attempt to repair the leak.

(e) "Above 10,000" if the maximum instrument reading measured by the methods specified in s. NR 661.1063 (2) after each repair attempt is equal to or greater than 10,000 ppm.

(f) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(g) Documentation supporting the delay of repair of a valve in compliance with s. NR 661.1059 (3).

(h) The signature of the remanufacturer or other person that stores or treats the hazardous secondary material, or designee, whose decision it was that repair could not be affected without a hazardous secondary material management unit shutdown.

(i) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

(j) The date of successful repair of the leak.

(5) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions specified in s.

NR 661.1060 shall be recorded by the remanufacturer or other person and kept up-to-date at the facility as specified in s. NR 661.1035 (3). Design documentation is specified in s. NR 661.1035 (3) (a) and (b) and monitoring, operating, and inspection information is specified in s. NR 661.1035 (3) (c) to (h).

(6) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser or carbon adsorption system, record, in the facility operating record, monitoring and inspection information indicating proper operation and maintenance of the control device.

(7) A remanufacturer or other person that stores or treats the hazardous secondary material shall record all of the following information, pertaining to all equipment subject to ss. NR 661.1052 to 661.1060, in a log that is kept in the facility operating record:

(a) A list of identification numbers for equipment, except welded fittings, subject to the requirements of this subchapter.

(b) 1. A list of identification numbers for equipment that the remanufacturer or other person that stores or treats the hazardous secondary material elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions specified in ss. NR 661.1052 (5), 661.1053(9), and 661.1057(6).

2. The designation of this equipment as subject to the requirements specified in s. NR 661.1052(5), 661.1053(9), or 661.1057(6) shall be signed by the remanufacturer or other person that stores or treats the hazardous secondary material.

(c) A list of equipment identification numbers for pressure relief devices required to comply with s. NR 661.1054 (1).

(d) 1. The dates of each compliance test required in ss. NR 661.1052(5), 661.1053(9), 661.1054, and 661.1057(6).

2. The background level measured during each compliance test.

3. The maximum instrument reading measured at the equipment during each compliance test.

(e) A list of identification numbers for equipment in vacuum service.

(f) Identification, either by list or location, such as area or group, of equipment that contains or contacts hazardous secondary material with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year.

(8) A remanufacturer or other person that stores or treats the hazardous secondary material shall record all of the following information, pertaining to all valves subject to s. NR 661.1057 (7) and (8), in a log that is kept in the facility operating record:

(a) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

(b) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

(9) A remanufacturer or other person that stores or treats the hazardous secondary material shall record all of the following information in the facility operating record for valves complying with s. NR 661.1062:

(a) A schedule of monitoring.

(b) The percent of valves found leaking during each monitoring period.

(10) A remanufacturer or other person that stores or treats the hazardous secondary material shall record all of the following information in a log that is kept in the facility operating record:

(a) Criteria required in ss. NR 661.1052 (4) (e) 2. and 661.1053 (5) (b) and an explanation of the design criteria.

(b) Any changes to these criteria and the reasons for the changes.

(11) A remanufacturer or other person that stores or treats the hazardous secondary material shall record all of the following information in a log that is kept in the facility operating record for use in determining exemptions in the applicability section of this subchapter and other specific subchapters:

(a) An analysis determining the design capacity of the hazardous secondary material management unit.

(b) A statement listing the hazardous secondary material influent to and effluent from each hazardous secondary material management unit subject to the requirements specified in ss. NR 661.1052 to 661.1060 and an analysis determining whether these hazardous secondary material are heavy liquids.

(c) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements specified in ss. NR 661.1052 to 661.1060. The record shall include supporting documentation as required under s. NR 661.1063 (4) (c) when application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced is used. If the remanufacturer or other person that stores or treats the hazardous secondary material takes any action, such as changing the process that produced the material, that could result in an increase in the total organic content of the material contained in or contacted by equipment determined not to be subject to the requirements specified in ss. NR 661.1052 to 661.1060, then a new determination is required.

(12) A remanufacturer or other person that stores or treats the hazardous secondary material shall keep records of the equipment leak information required under sub. (4) and the operating information required under sub. (5) of this section for 3 years.

(13) A remanufacturer or other person that stores or treats the hazardous secondary material at a facility with equipment that is subject to this subchapter and to requirements in 40 CFR part 60, 61 or 63, or to corresponding provisions of ch. NR 440, NR 446 subch. III and IV and chs. NR 447 to 469, may elect to determine compliance with this subchapter either by documentation pursuant to s. NR 661.1064 of this subchapter, or by documentation of compliance with the requirements 40 CFR part 60, 61 or 63, or to corresponding provisions of ch. NR 440, NR 446 subch. III and IV and chs. NR 447 to 469, pursuant to the relevant provisions of 40 CFR part 60, 61 or 63, or to corresponding provisions of ch. NR 440, NR 446 subch. III and IV, and chs. NR 447 to 469. The documentation of compliance under the requirements in 40 CFR part 60, 61 or 63, or to corresponding provisions of ch. NR 440, NR 446 subch. III and IV, and chs. NR 447 to 469 shall be kept with or made readily available at the facility.

Subchapter CC — Air Emission Standards for Tanks and Containers

NR 661.1080 Applicability. (1) The requirements in this subchapter apply to tanks and containers that contain hazardous secondary material excluded under the remanufacturing exclusion specified in s. NR 661.0004 (1) (za), unless the tanks and containers are equipped with and operating air emission controls in accordance with the requirements of an applicable Clean

Air Act regulation codified under 40 CFR parts 60, 61, and 63, or subject to NR 440, 446 subch. III and IV, or 447 to 469.

NR 661.1081 Definitions. As used in this subchapter, all terms not defined in this section shall have the meaning given them in ch. 291, Stats., and chs. NR 660 to 666.

(1) "Average volatile organic concentration" or "average VO concentration" means the mass-weighted average volatile organic concentration of a hazardous secondary material as determined in accordance with the requirements specified in s. NR 661.1084.

(2) "Closure device" means a cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover such that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere. A closure device includes a device that is detachable from the cover, such as a sampling port cap; manually operated, such as hinged access lid or hatch; or automatically operated, such as a spring-loaded pressure relief valve.

(3) "Continuous seal" means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

(4) "Cover" means a device that provides a continuous barrier over the hazardous secondary material managed in a unit to prevent or reduce air pollutant emissions to the atmosphere. A cover may have openings, such as access hatches, sampling ports, gauge wells, that are necessary for operation, inspection, maintenance, and repair of the unit on which the cover is used. A cover may be a separate piece of equipment that can be detached and removed from the unit, or a cover may be formed by structural features permanently integrated into the design of the unit.

(5) "Empty hazardous secondary material container" means any of the following:

(a) A container from which all hazardous secondary material have been removed that can be removed using the practices commonly employed to remove materials from that type of container, such as pouring, pumping, and aspirating, and no more than 2.5 centimeters of residue remain on the bottom of the container or inner liner.

(b) A container that is less than or equal to 119 gallons in size and no more than 3 percent by weight of the total capacity of the container remains in the container or inner liner.

(c) A container that is greater than 119 gallons in size and no more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner.

(6) "Enclosure" means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed-vent system to a control device.

(7) "External floating roof" means a pontoon-type or double-deck type cover that rests on the surface of the material managed in a tank with no fixed roof.

(8) "Fixed roof" means a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the material managed in the unit.

(9) "Floating membrane cover" means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous secondary material being managed in a surface impoundment.

(10) "Floating roof" means a cover consisting of a double deck, pontoon single deck, or internal floating cover that rests upon and is supported by the material being contained, and is equipped with a continuous seal.

(11) "Hard-piping" means pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

(12) "In light material service" means the container is used to manage a material for which all of the following conditions apply:

(a) The vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals or kPa at 20 °C.

(b) The total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20 °C is equal to or greater than 20 percent by weight.

(13) "Internal floating roof means" a cover that rests or floats on the material surface, but is not necessarily in complete contact with it, inside a tank that has a fixed roof.

(14) "Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the hazardous secondary material between the tank wall and the floating roof continuously around the circumference of the tank.

(15) "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal

or usual manner. A failure that is caused in part by poor maintenance or careless operation is not a malfunction.

(16) "Material determination" means performing all applicable procedures in accordance with the requirements specified in s. NR 661.1084 to determine whether a hazardous secondary material meets standards specified in this subchapter. Examples of a material determination include performing the procedures in accordance with the requirements specified in s. NR 661.1084 to determine the average VO concentration of a hazardous secondary material at the point of material origination; the average VO concentration of a hazardous secondary material at the point of material treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous secondary material; the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous secondary material and comparing the results to the applicable standards; or the maximum volatile organic vapor pressure for a hazardous secondary material in a tank and comparing the results to the applicable standards.

(17) "Maximum organic vapor pressure" means the sum of the individual organic constituent partial pressures that are exerted by the material contained in a tank, and reasonably expected to occur in the tank at the maximum vapor pressure-causing conditions, such as temperature, agitation, or pH effects of combining materials. For the purpose of this subchapter, maximum organic vapor pressure is determined using the procedures specified in s. NR 661.1084 (3).

(18) "Metallic shoe" seal means a continuous seal that is constructed of metal sheets that are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric or envelope spans the annular space between the metal sheet and the floating roof.

(19) "No detectable organic emissions" means no escape of organics to the atmosphere as determined using the procedure specified in s. NR 661.1084 (4).

(20) "Point of material origination" means one of the following:

(a) When the remanufacturer or other person that stores or treats the hazardous secondary material is the generator of the hazardous secondary material, the point of material origination means the point where a material produced by a system, process, or material

management unit is determined to be a hazardous secondary material excluded under s. NR 661.0004 (1) (za).

Note: In this case, this term is being used in a manner similar to the use of the term "point of generation" in air standards established for waste management operations in 40 CFR parts 60, 61 and 63, or subject to NR 440, NR 446 subch. III and IV, or 447 to 469.

(b) When the remanufacturer or other person that stores or treats the hazardous secondary material is not the generator of the hazardous secondary material, point of material origination means the point where the remanufacturer or other person that stores or treats the hazardous secondary material accepts delivery or takes possession of the hazardous secondary material.

(21) "Safety device" means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device that functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this subchapter, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

(22) "Single-seal system" means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

(23) "Vapor-mounted seal" means a continuous seal that is mounted such that there is a vapor space between the hazardous secondary material in the unit and the bottom of the seal.

(24) "Volatile organic concentration" or "VO concentration" means the fraction by weight of the volatile organic compounds contained in a hazardous secondary material expressed in terms of parts per million or ppmw as determined by direct measurement or by knowledge of

the material in accordance with the requirements specified in s. NR 661.1084. For the purpose of determining the VO concentration of a hazardous secondary material, organic compounds with a Henry's law constant value of at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in the liquid-phase (0.1 Y/X), which can also be expressed as 1.8×10^{-6}atmospheres/gram-mole/m^3, at 25 °C shall be included.

NR 661.1082 Standards: general. (1) This section applies to the management of hazardous secondary material in tanks and containers subject to this subchapter.

(2) A remanufacturer or other person that stores or treats hazardous secondary material shall control air pollutant emissions from each hazardous secondary material management unit in accordance with standards specified in ss. NR 661.1084 to 661.1087, as applicable to the hazardous secondary material management unit, except as provided for in sub. (3).

(3) A tank or container is exempt from standards specified in ss. NR 661.1084 to 661.1087, as applicable, provided that the hazardous secondary material management unit is a tank or container for which all hazardous secondary material entering the unit has an average VO concentration at the point of material origination of less than 500 parts per million by weight or ppmw. The average VO concentration shall be determined using the procedures specified in s. NR 661.1083 (1). The remanufacturer or other person that stores or treats the hazardous secondary material shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous secondary material streams entering the unit.

NR 661.1083 Material determination procedures. (1) MATERIAL DETERMINATION PROCEDURE TO DETERMINE AVERAGE VOLATILE ORGANIC (VO) CONCENTRATION OF A HAZARDOUS SECONDARY MATERIAL AT THE POINT OF MATERIAL ORIGINATION. (a) *Determining average VO concentration at the point of material origination.* A remanufacturer or other person that stores or treats the hazardous secondary material shall determine the average VO concentration at the point of material origination for each hazardous secondary material placed in a hazardous secondary material management unit exempted under the provisions of s. NR 661.1082 (3) (a) from using air emission controls in accordance with standards specified in s. NR s. NR 661.1084 to 661.1087,

as applicable to the hazardous secondary material management unit. The remanufacturer or other person that stores or treats the hazardous secondary material shall make the determinations according to all of the following:

1. Make an initial determination of the average VO concentration of the material stream before the first time any portion of the material in the hazardous secondary material stream is placed in a hazardous secondary material management unit exempted under the provisions of s. NR 661.1082 (3) (a) from using air emission controls, and thereafter make an initial determination of the average VO concentration of the material stream for each averaging period that a hazardous secondary material is managed in the unit.

2. Perform a new material determination whenever changes to the source generating the material stream are reasonably likely to cause the average VO concentration of the hazardous secondary material to increase to a level that is equal to or greater than the applicable VO concentration limits specified in s. NR 661.1082.

(b) *Determination of average VO concentration using direct measurement or knowledge.* For a material determination that is required under par. (a), the average VO concentration of a hazardous secondary material at the point of material origination shall be determined using either direct measurement as specified in par. (c) or by knowledge as specified in par. (d).

(c) *Direct measurement to determine average VO concentration of a hazardous secondary material at the point of material origination.*

1. 'Identification.' The remanufacturer or other person that stores or treats the hazardous secondary material shall identify and record in a log that is kept at the facility the point of material origination for the hazardous secondary material.

2. 'Sampling.' Samples of the hazardous secondary material stream shall be collected at the point of material origination in a manner such that volatilization of organics contained in the material and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.The remanufacturer or other person that samples the hazardous secondary material shall sample according to all of the following:

a. The averaging period to be used for determining the average VO concentration for the hazardous secondary material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the remanufacturer or other

person that stores or treats the hazardous secondary material determines is appropriate for the hazardous secondary material stream but shall not exceed one year.

b. A sufficient number of samples, but no less than 4 samples, shall be collected and analyzed for a hazardous secondary material determination. All of the samples for a given material determination shall be collected within a one-hour period. The average of the 4 or more sample results constitutes a material determination for the material stream. One or more material determinations may be required to represent the complete range of material compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous secondary material stream. Examples of such normal variations are seasonal variations in material quantity or fluctuations in ambient temperature.

c. All samples shall be collected and handled in accordance with written procedures prepared by the remanufacturer or other person that stores or treats the hazardous secondary material and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous secondary material stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained at the facility. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Method 25D in Appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

d. Sufficient information, as specified in the site sampling plan required under subd. 2. c., shall be prepared and recorded to document the material quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous secondary material represented by the samples.

3. 'Analysis.' Each collected sample shall be prepared and analyzed in accordance with Method 25D in Appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11, for the total concentration of volatile organic constituents, or using one or more methods when the individual organic compound concentrations are identified and summed and the summed material concentration accounts for and reflects all organic compounds in the material with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X), which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m^3, at

25 °C. At the discretion of the remanufacturer or other person that stores or treats the hazardous secondary material, the test data obtained may be adjusted by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value of less than 0.1 Y/X at 25 °C. To adjust these data, the measured concentration of each individual chemical constituent contained in the material is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}). If the remanufacturer or other person that stores or treats the hazardous secondary material elects to adjust the test data, the adjustment shall be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25 °C contained in the material. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet the requirements specified in subd. .3. a. or b. and provided the requirement to reflect all organic compounds in the material with Henry's law constant values greater than or equal to 0.1 Y/X, which can also be expressed as 1.8×10^{-6}atmospheres/gram-mole/m^3, at 25 °C, is met.

a. Any EPA standard method that has been validated in accordance with "Alternative Validation Procedure for EPA Waste and Wastewater Methods," Appendix D of 40 CFR part 63, incorporated by reference in s. NR 660.11.

b. Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in Appendix A of 40 CFR part 63, incorporated by reference in s. NR 660.11. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

4. 'Calculations.'

a. The average VO concentration (C) on a mass-weighted basis shall be calculated by using the results for all material determinations conducted in accordance with subds. 2. and 3. and the following equation:

$$\bar{C} = \frac{1}{Q_T} * \sum_{i-1}^{n} (Q_i * C_i)$$

Where:

C = Average VO concentration of the hazardous secondary material at the point of material origination on a mass-weighted basis, ppmw.

i = Individual material determination "i" of the hazardous secondary material.

n = Total number of material determinations of the hazardous secondary material conducted for the averaging period (not to exceed 1 year).

Q_i = Mass quantity of hazardous secondary material stream represented by C_i, kg/hr.

Q_T = Total mass quantity of hazardous secondary material during the averaging period, kg/hr.

C_i = Measured VO concentration of material determination "i" as determined in accordance with the requirements specified in subd. 3., which is the average of the 4 or more samples specified in subd. 2. b., ppmw.

b. For the purpose of determining C_i, for individual material samples analyzed in accordance with subd. 3., the remanufacturer or other person that stores or treats the hazardous secondary material shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

1) If Method 25D in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11, is used for the analysis, one-half the blank value determined in the method at section 4.4 of Method 25D in appendix A of 40 CFR part 60.

2) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the material that has a Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) [which can also be expressed as 1.8×10^{-6}atmospheres/gram-mole/m^3] at 25 °C.

(d) *Use of knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material to determine average VO concentration of a hazardous secondary material at the point of material origination.*

1. The remanufacturer or other person that stores or treats the hazardous secondary material shall prepare documentation that presents the information used as the basis for the knowledge of the hazardous secondary material stream's average VO concentration. Examples

of information that may be used as the basis for knowledge include material balances for the source or process generating the hazardous secondary material stream; constituent-specific chemical test data for the hazardous secondary material stream from previous testing that are still applicable to the current material stream; previous test data for other locations managing the same type of material stream; or other knowledge based on information included in shipping papers or material certification notices.

2. If test data are used as the basis for knowledge, then the remanufacturer or other person that stores or treats the hazardous secondary material shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, a remanufacturer or other person that stores or treats the hazardous secondary material may use organic concentration test data for the hazardous secondary material stream that are validated in accordance with Method 301 in appendix A of 40 CFR part 63, incorporated by reference in s. NR 660.11, as the basis for knowledge of the waste.

3. A remanufacturer or other person that stores or treats the hazardous secondary material using chemical constituent-specific concentration test data as the basis for knowledge of the hazardous secondary material may adjust the test data to the corresponding average VO concentration value that would have been obtained had the material samples been analyzed using Method 25D in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11. To adjust these data, the measured concentration for each individual chemical constituent contained in the material is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}).

4. In the event that the department and the remanufacturer or other person that stores or treats the hazardous secondary material disagree on a determination of the average VO concentration for a hazardous secondary material stream using knowledge, then the results from a determination of average VO concentration using direct measurement as specified in par. (c) shall be used to establish compliance with the applicable requirements of this subchapter. The department may perform or request that the remanufacturer or other person that stores or treats the hazardous secondary material perform this determination using direct measurement. The remanufacturer or other person that stores or treats the hazardous secondary material may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements specified in par. (c) 3.

(3) PROCEDURE TO DETERMINE THE MAXIMUM ORGANIC VAPOR PRESSURE OF A HAZARDOUS SECONDARY MATERIAL IN A TANK.

(a) A remanufacturer or other person that stores or treats hazardous secondary material shall determine the maximum organic vapor pressure for each hazardous secondary material placed in a tank using Tank Level 1 controls in accordance with standards specified in s. NR 661.1084 (3).

(b) A remanufacturer or other person that stores or treats hazardous secondary material shall use either direct measurement as specified in par. (c) or knowledge of the waste as specified in par. (d) to determine the maximum organic vapor pressure that is representative of the hazardous secondary material composition stored or treated in the tank.

(c) Direct measurement to determine the maximum organic vapor pressure of a hazardous secondary material shall be conducted using all of the following procedures:

1. A sufficient number of samples shall be collected to be representative of the hazardous secondary material contained in the tank. All samples shall be collected and handled in accordance with written procedures prepared by the remanufacturer or other person that stores or treats the hazardous secondary material and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous secondary material are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained at the facility. An example of acceptable sample collection and handling procedures may be found in Method 25D in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

2. Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous secondary material:

a. Method 25E in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

b. Methods described in American Petroleum Institute Publication 2517, Third Edition, February 1989, "Evaporative Loss from External Floating-Roof Tanks," incorporated by reference in s. NR 660.11.

c. Methods obtained from standard reference texts.

d. ASTM Method 2879-92, incorporated by reference in s. NR 660.11.

e. Any other method approved by the department.

(d) A remanufacturer or other person that stores or treats hazardous secondary material may use knowledge to determine the maximum organic vapor pressure of the hazardous secondary material. Documentation shall be prepared and recorded that presents the information used as the basis for the knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material that the maximum organic vapor pressure of the hazardous secondary material is less than the maximum vapor pressure limit specified in s. NR 661.1085 (2) (a) 1. for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous secondary material is generated by a process for which at other locations it previously has been determined by direct measurement that the hazardous secondary material's waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.

(4) PROCEDURE FOR DETERMINING NO DETECTABLE ORGANIC EMISSIONS FOR THE PURPOSE OF COMPLYING WITH THIS SUBCHAPTER.

(a) A remanufacturer or other person that stores or treats hazardous secondary material shall conduct a test to determine no detectable organic emissions for the purpose of complying with this chapter in accordance with the procedures specified in Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11. Each potential leak interface, a location where organic vapor leakage could occur, on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include the interface of the cover and its foundation mounting, the periphery of any opening on the cover and its associated closure device, and the sealing seat interface on a spring-loaded pressure relief valve.

(b) The test shall be performed when the unit contains a hazardous secondary material having an organic concentration representative of the range of concentrations for the hazardous secondary material expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(c) The detection instrument shall meet the performance criteria of Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of

the organic constituents in the hazardous secondary material placed in the hazardous secondary management unit, not for each individual organic constituent.

(d) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(e) Calibration gases shall be all of the following:

1. Zero air that is less than 10 ppmv hydrocarbon in air.

2. A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppmv methane or n-hexane.

(f) The background level shall be determined according to the procedures in Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(g) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn, such as some pressure relief devices, the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(h) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 500 ppmv except when monitoring a seal around a rotating shaft that passes through a cover opening, in which case the comparison shall be as specified in par. (i). If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

(i) For the seals around a rotating shaft that passes through a cover opening, the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 10,000 ppmw. If the difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions.

NR 661.1084 Standards: tanks. (1) The provisions of this section apply to the control of air pollutant emissions from tanks for which s. NR 661.1082 (2) references the use of this section for such air emission control.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each tank subject to this section in accordance with one of the following requirements as applicable:

(a) For a tank that manages hazardous secondary material that meets all of the conditions specified in subd. 1. to 2., the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in sub. (3) or the Tank Level 2 controls specified in sub. (4).

1. The hazardous secondary material in the tank has a maximum organic vapor pressure less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:

a. For a tank design capacity equal to or greater than 151 m^3, the maximum organic vapor pressure limit for the tank is 5.2 kPa.

b. For a tank design capacity equal to or greater than 75 m^3 but less than 151 m^3, the maximum organic vapor pressure limit for the tank is 27.6 kPa.

c. For a tank design capacity less than 75 m^3, the maximum organic vapor pressure limit for the tank is 76.6 kPa.

2. The hazardous secondary material in the tank is not heated by the remanufacturer or other person that stores or treats the hazardous secondary material to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous secondary material is determined for the purpose of complying with subd. 1.

(b) For a tank that manages hazardous secondary material that does not meet all of the conditions specified in par. (a)1. and 2., the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements under sub. (4). An example of a tank required to use Tank Level 2 controls is a tank for which the hazardous secondary material in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in par. (a) 1.

(3) A remanufacturer or other person that stores or treats the hazardous secondary material controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet all of the following requirements:

(a) The remanufacturer or other person that stores or treats that hazardous secondary material shall determine the maximum organic vapor pressure for a hazardous secondary material to be managed in the tank using Tank Level 1 controls before the first time the hazardous secondary material is placed in the tank. The maximum organic vapor pressure shall be determined using the procedures specified in s. NR 661.1083 (3). Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform a new determination whenever changes to the hazardous secondary material managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in sub. (2) (a) 1., as applicable to the tank.

(b) The remanufacturer or other person that stores or treats that hazardous secondary material shall equip the tank with a fixed roof designed to meet all of the following specifications:

1. The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the hazardous secondary material in the tank. The fixed roof may be a separate cover installed on the tank, such as a removable cover mounted on an open-top tank, or may be an integral part of the tank structural design, such as a horizontal cylindrical tank equipped with a hatch.

2. The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

3. Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be any of the following:

a. Equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device.

b. Connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating whenever hazardous secondary material is managed in the tank, except during any of the following periods:

1) During periods when it is necessary to provide access to the tank for performing the activities of subd. 3. b. 2), venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device.

2) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for removal of accumulated sludge or other residues from the bottom of the tank.

4. The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include organic vapor permeability; the effects of any contact with the hazardous secondary material or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(c) Whenever a hazardous secondary material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

1. Opening of closure devices or removal of the fixed roof is allowed at the following times:

a. To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

b. To remove accumulated sludge or other residues from the bottom of the tank.

2. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

3. Opening of a safety device, as defined in s. NR 661.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(d) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the air emission control equipment according to all of the following requirements:

1. The fixed roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

2. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this section. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year except under the special conditions provided for in sub. (12).

3. In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements under sub. (11).

4. The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in s. NR 661.1089 (2).

(4) The remanufacturer or other person that stores or treats the hazardous secondary material controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

(a) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in sub. (5).

(b) A tank equipped with an external floating roof in accordance with the requirements specified in sub. (6).

(c) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in sub. (7).

(d) A pressure tank designed and operated in accordance with the requirements specified in sub. (8).

(e) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in sub. (9).

(5) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in pars. (a) to (c).

(a) The tank shall be equipped with a fixed roof and an internal floating roof in accordance with all of the following requirements:

1. The internal floating roof shall be designed to float on the liquid surface except when the floating roof shall be supported by the leg supports.

2. The internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets any of the following requirements:

a. A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in s. NR 661.1081.

b. Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

3. The internal floating roof shall meet all of the following specifications:

a. Each opening in a noncontact internal floating roof except for automatic bleeder vents, vacuum breaker vents, and the rim space vents shall provide a projection below the liquid surface.

b. Each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

c. Each penetration of the internal floating roof for the purpose of sampling shall have a slit fabric cover that covers at least 90 percent of the opening.

d. Each automatic bleeder vent and rim space vent shall be gasketed.

e. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

f. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the tank in accordance with all of the following requirements:

1. When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

2. Automatic bleeder vents shall be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

3. Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof shall be bolted or fastened closed, so that there are no visible gaps. Rim space vents shall be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.

(c) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the internal floating roof in accordance with all of the following:

1. The floating roof and its closure devices shall be visually inspected by the remanufacture or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include conditions in which the

internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the hazardous secondary material surface from the atmosphere; or the slotted membrane has more than 10 percent open area.

2. Except as provided in subd. 3., the remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the internal floating roof components using all of the following procedures:

a. Visually inspect the internal floating roof components through openings on the fixed-roof, such as manholes and roof hatches, at least once every 12 months after initial fill.

b. Visually inspect the internal floating roof, primary seal, secondary seal, if one is in service, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least every 10 years.

3. As an alternative to performing the inspections specified in subd. 2. for an internal floating roof equipped with 2 continuous seals mounted one above the other, the remanufacturer or other person that stores or treats the hazardous secondary material may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least every 5 years.

4. Prior to each inspection required under subd 2. or 3., the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the department in advance to provide the department with the opportunity to have an observer present during the inspection. The remanufacturer or other person that stores or treats the hazardous secondary material shall notify the department of the date and location of the inspection as follows:

a. Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, the remanufacturer or other person that stores or treats the hazardous secondary material shall prepare and send written notification so that it is received by the department at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in subd. 4. b.

b. When a visual inspection is not planned and the remanufacturer or other person that stores or treats the hazardous secondary material could not have known about the inspection 30 calendar days before refilling the tank, the remanufacturer or other person that stores or treats the

hazardous secondary material shall notify the department as soon as possible, but no later than 7 calendar days before refilling the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the department at least 7 calendar days before refilling the tank.

5. In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements under sub. (11).

6. The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in s. NR 661.1089 (2).

(d) Safety devices, as defined in s. NR 661.1081, may be installed and operated as necessary on any tank complying with the requirements specified in this subsection.

(6) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in par. (a) to (c).

(a) The remanufacturer or other person that stores or treats the hazardous secondary material shall design the external floating roof in accordance with all of the following requirements:

1. The external floating roof shall be designed to float on the liquid surface except when the floating roof is supported by the leg supports.

2. The floating roof shall be equipped with 2 continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.The primary seal and secondary seal shall meet the following requirements:

a. The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in s. NR 661.1081. The total area of the gaps between the tank wall and the primary seal shall not exceed 212 square centimeters per meter of tank diameter, and the width of any portion of these gaps shall not exceed 3.8 centimeters. If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface.

b. The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters per meter of tank diameter, and the width of any portion of these gaps shall not exceed 1.3 centimeters.

3. The external floating roof shall meet all of the following specifications:

a. Except for automatic bleeder vents, vacuum breaker vents, and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.

b. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid.

c. Each access hatch and each gauge float well shall be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.

d. Each automatic bleeder vent and each rim space vent shall be equipped with a gasket.

e. Each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

f. Each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

g. Each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

h. Each slotted guide pole shall be equipped with a gasketed float or other device that closes off the liquid surface from the atmosphere.

i. Each gauge hatch and each sample well shall be equipped with a gasketed cover.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the tank in accordance with all of the following requirements:

1. When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

2. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be secured and maintained in a closed position at all times except when the closure device must be open for access.

3. Covers on each access hatch and each gauge float well shall be bolted or fastened when secured in the closed position.

4. Automatic bleeder vents shall be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

5. Rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

6. The cap on the end of each unslotted guide pole shall be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.

7. Except when the hatch or well must be opened for access, the cover on each gauge hatch or sample well shall be secured in the closed position at all times.

8. Except during inspections, both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion.

(c) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the external floating roof in accordance with all of the following procedures:

1. The remanufacturer or other person that stores or treats the hazardous secondary material shall measure the external floating roof seal gaps in accordance with all of the following requirements:

a. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every 5 years.

b. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.

c. If a tank ceases to hold hazardous secondary material for a period of one year or more, subsequent introduction of hazardous secondary material into the tank shall be considered an initial operation for the purposes of subd. 1. a. and b.

d. The remanufacturer or other person that stores or treats the hazardous secondary material shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the following procedure:

1) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

2) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter diameter uniform probe passes freely, without forcing or binding against the seal, between the seal and the wall of the tank and the circumferential distance of each such location shall be measured.

3) For a seal gap measured under par. (c), the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each width by its respective circumferential distance.

4) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. The total gap areas for the primary seal and secondary seal shall be compared to the respective standards for the seal type as specified in par. (a) 2.

e. In the event that the seal gap measurements do not conform to the specifications in par. (a) 2., the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements under sub. (11).

f. The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in s. NR 661.1089 (2).

2. The remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the external floating roof in accordance with all of the following requirements:

a. The remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the floating roof and its closure devices shall to check for defects that could result in air pollutant emissions. Defects include holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank;

broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

b. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the external floating roof and its closure devices on or before the date the tank becomes subject to this section. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year except for the special conditions provided for in sub. (12).

c. In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements under sub. (11).

d. The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in s. NR 661.1089 (2).

3. Prior to each inspection required under subd. 1. or 2., the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the department in advance of each inspection to provide the department with the opportunity to have an observer present during the inspection. The remanufacturer or other person that stores or treats the hazardous secondary material shall notify the department of the date and location of the inspection as follows:

a. Prior to each inspection to measure external floating roof seal gaps as required under subd. 1., the remanufacturer or other person that stores or treats the hazardous secondary material shall prepare and send written notification so that it is received by the department at least 30 calendar days before the date the measurements are scheduled to be performed.

b. Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, the remanufacturer or other person that stores or treats the hazardous secondary material shall prepare and send written notification so that it is received by the department at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in subd. 3. c.

c. When a visual inspection is not planned and the remanufacturer or other person that stores or treats the hazardous secondary material could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the department as soon

as possible, but no later than 7 calendar days before refilling the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the department at least 7 calendar days before refilling the tank.

(d) Safety devices, as defined in s. NR 661.1081, may be installed and operated as necessary on any tank complying with the requirements specified in this subsection.

(7) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank by venting the tank to a control device shall meet all of the following requirements.

(a) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with all of the following requirements:

1. The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

2. Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

3. The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

4. The closed-vent system and control device shall be designed and operated in accordance with the requirements specified in s. NR 661.1087.

(b) Whenever a hazardous secondary material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

1. Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

a. To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

b. To remove accumulated sludge or other residues from the bottom of a tank.

2. Opening of a safety device, as defined in s. NR 661.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(c) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the air emission control equipment in accordance with all of the following procedures:

1. The fixed roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

2. The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the closed-vent system and control device in accordance with the procedures specified in s. NR 661.1087.

3. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this section. Thereafter, the remanufacturer or other person

that stores or treats the hazardous secondary material shall perform the inspections at least once every year except for the special conditions provided for in sub. (12).

4. In the event that a defect is detected, the remanufacture or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements under sub. (11).

5. The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in s. NR 661.1089 (2).

(8) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions by using a pressure tank shall meet all of the following requirements.

(a) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

(b) All tank openings shall be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in s. NR 661.1083 (4).

(c) Whenever a hazardous secondary material is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except under any of the following conditions:

1. At those times when opening of a safety device, as defined in s. NR 661.1081, is required to avoid an unsafe condition.

2. At those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements specified in s. NR 661.1087.

(9) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the of the following requirements:

(a) The tank shall be located inside an enclosure and the enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" of appendix B of 40 CFR 52.741, incorporated by reference in s. NR 660.11. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of

the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform the verification procedure for the enclosure as specified in Section 5.0 of "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(b) The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in s. NR 661.1087.

(c) Safety devices, as defined in s. NR 661.1081, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements specified in pars. (a) and (b).

(d) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the closed-vent system and control device as specified in s. NR 661.1087.

(10) The remanufacturer or other person that stores or treats the hazardous secondary material shall transfer hazardous secondary material to a tank subject to this section in accordance with all of the following requirements:

(a) Except as provided in par. (b), transfer of hazardous secondary material to the tank from another tank subject to this section shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous secondary material to the atmosphere.

Note: For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR part 63, subpart RR—National Emission Standards for Individual Drain Systems.

(b) The requirements under par. (a) do not apply when transferring a hazardous secondary material to the tank under any of the following conditions:

1. The hazardous secondary material meets the average VO concentration conditions specified in s. NR 661.1082 (3) at the point of material origination.

2. The hazardous secondary material has been treated by an organic destruction or removal process to meet the requirements specified in s. NR 661.1082 (3) (b).

3. The hazardous secondary material meets the requirements specified in s. NR 661.1082 (3) (d).

(11) The remanufacturer or other person that stores or treats the hazardous secondary material shall repair each defect detected during an inspection performed in accordance with the requirements specified in subs. (3) (d), (5) (c), (6) (c), or (7) (c) as follows:

(a) The remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than 5 calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in par. (b).

(b) Repair of a defect may be delayed beyond 45 calendar days if the remanufacturer or other person that stores or treats the hazardous secondary material determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous secondary material normally managed in the tank. In this case, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect the next time the process or unit that is generating the hazardous secondary material managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(12) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this subchapter, subsequent inspection and monitoring may be performed at intervals longer than one year under any of the following special conditions:

(a) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the remanufacturer or other person that stores or treats the hazardous secondary material may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

1. Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

2. Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of this subchapter, as frequently as practicable during those times when a worker can safely access the cover.

(b) In the case when a tank is buried partially or entirely underground, a remanufacturer or other person that stores or treats the hazardous secondary material is required to inspect and

monitor, as required by the applicable provisions of this section, only those portions of the tank cover and those connections to the tank, such as fill ports, access hatches, or gauge wells, that are located on or above the ground surface.

NR 661.1086 Standards: containers. (1) APPLICABILITY. The provisions of this section apply to the control of air pollutant emissions from containers for which s. NR 661.1082 (2) references the use of this section for such air emission control.

(2) GENERAL REQUIREMENTS. (a) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each container subject to this section in accordance with all of the following requirements, as applicable to the container:

1. For a container having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in sub. (3).

2. For a container having a design capacity greater than 0.46 m^3 that is not in light material service, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in sub. (3).

3. For a container having a design capacity greater than 0.46 m^3 that is in light material service, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in sub. (4).

(3) CONTAINER LEVEL 1 STANDARDS. (a) A container using Container Level 1 controls is one of the following:

1. A container that meets the applicable U.S. department of transportation regulations on packaging hazardous materials for transportation as specified in sub. (6).

2. A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container, such as a lid on a drum

or a suitably secured tarp on a roll-off box, or may be an integral part of the container structural design, such as a "portable tank" or bulk cargo container equipped with a screw-type cap.

3. An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous secondary material in the container such that no hazardous secondary material is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

(b) A container used to meet the requirements specified in par. (a) 2. or 3. shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous secondary material to the atmosphere and to maintain the equipment integrity, for as long as the container is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices include organic vapor permeability; the effects of contact with the hazardous secondary material or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

(c) Whenever a hazardous secondary material is in a container using Container Level 1 controls, the remanufacturer or other person that stores or treats the hazardous secondary material shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:

1. Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:

a. In the case when the container is filled to the intended final level in one continuous operation, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

b. In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level, the completion of a batch loading after which no additional material will be added to the container within 15 minutes, the person performing the loading operation leaving

the immediate vicinity of the container, or the shutdown of the process generating the hazardous secondary material being added to the container, whichever condition occurs first.

2. Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container as follows:

a. For the purpose of meeting the requirements of this section, an empty hazardous secondary material container may be open to the atmosphere at any time. Covers and closure devices on an empty container are not required to be secured in the closed position.

b. In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary material container, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

3. Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

4. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on container manufacturer recommendations, applicable regulations, fire

protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

5. Opening of a safety device, as defined in s. NR 661.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(d) The remanufacturer or other person that stores or treats the hazardous secondary material using a container with Container Level 1 controls shall inspect the container and its covers and closure devices as follows:

1. In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person that stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The visual inspection of the container shall be conducted on or before the date that the container is accepted at the facility, which is the date the container becomes subject to the subchapter CC container standards.

2. In the case when a container used for managing hazardous secondary material remains at the facility for a period of one year or more, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements specified in subd. 3.

3. When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than 24 hours after detection and repair shall be

completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous secondary material shall be removed from the container and the container shall not be used to manage hazardous secondary material until the defect is repaired.

(e) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m^3 or greater, which do not meet applicable U.S. department of transportation regulations as specified in sub. (6), are not managing hazardous secondary material in light material service.

(4) CONTAINER LEVEL 2 STANDARDS. (a) A container using Container Level 2 controls is one of the following:

1. A container that meets the applicable U.S. department of transportation regulations on packaging hazardous materials for transportation as specified in sub. (6).

2. A container that operates with no detectable organic emissions as defined in s. NR 661.1081 and determined in accordance with the procedure specified in sub. (7).

3. A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Method 27 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11, according to sub. (8).

(b) Transfer of hazardous secondary material in or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the EPA considers to meet the requirements of this paragraph include using a submerged-fill pipe or other submerged-fill method to load liquids into the container, a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations, or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.

(c) Whenever a hazardous secondary material is in a container using Container Level 2 controls, the remanufacturer or other person that stores or treats the hazardous secondary

material shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

1. Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:

a. In the case when the container is filled to the intended final level in one continuous operation, the remanufacture or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

b. In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level, the completion of a batch loading after which no additional material will be added to the container within 15 minutes, the person performing the loading operation leaving the immediate vicinity of the container, or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

2. Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container as follows:

a. For the purpose of meeting the requirements of this section, an empty hazardous secondary material container may be open to the atmosphere at any time. Covers and closure devices are not required to be secured in the closed position on an empty container.

b. In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary material container, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

3. Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure

the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

4. Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

5. Opening of a safety device, as defined in s. NR 661.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(d) The remanufacturer or other person that stores or treats the hazardous secondary material using containers with Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:

1. In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person that stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The visual

inspection of the container shall be conducted on or before the date that the container is accepted at the facility, which is the date the container becomes subject to the subchapter CC container standards.

2. In the case when a container used for managing hazardous secondary material remains at the facility for a period of one year or more, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements specified in subd. 3.

3. When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous secondary material shall be removed from the container and the container shall not be used to manage hazardous secondary material until the defect is repaired.

(5) CONTAINER LEVEL 3 STANDARDS. (a) A container using Container Level 3 controls is one of the following:

1. A container that is vented directly through a closed-vent system to a control device in accordance with the requirements specified in par. (b) 2.

2. A container that is vented inside an enclosure that is exhausted through a closed-vent system to a control device in accordance with the requirements specified in par.(b) 1. and 2.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall meet all of the following requirements, as applicable to the type of air emission control equipment selected by the remanufacturer or other person that stores or treats the hazardous secondary material:

1. The container enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under of appendix B of 40 CFR 52.741, incorporated

by reference in s. NR 660.11. The enclosure may have permanent or temporary openings to allow worker access, passage of containers through the enclosure by conveyor or other mechanical means, entry of permanent mechanical or electrical equipment, or direct airflow into the enclosure. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform the verification procedure for the enclosure as specified in Section 5.0 of "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

2. The closed-vent system and control device shall be designed and operated in accordance with the requirements specified in s. NR 661.1087.

(c) Safety devices, as defined in s. NR 661.1081, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements specified in par. (a).

(d) A remanufacturer or other person that stores or treats the hazardous secondary material using Container Level 3 controls in accordance with the provisions of this subchapter shall inspect and monitor the closed-vent systems and control devices as specified in s. NR 661.1087.

(e) A remanufacturer or other person that stores or treats the hazardous secondary material that uses Container Level 3 controls in accordance with the provisions of this subchapter shall prepare and maintain the records specified in s. NR 661.1089 (4).

(f) Transfer of hazardous secondary material in or out of a container using Container Level 3 controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the EPA considers to meet the requirements of this paragraph include a submerged-fill pipe or other submerged-fill method to load liquids into the container, a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations, or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.

(6) HAZARDOUS MATERIALS PACKAGING REQUIREMENTS. For the purpose of compliance with sub. (3) (a) 1. or (4) (a) 1., a container shall be used that meets the applicable U.S. department of transportation regulations on packaging hazardous materials for transportation as follows:

(a) The container meets the applicable requirements specified in 49 CFR part 178—Specifications for Packaging or part 179—Specifications for Tank Cars.

(b) Hazardous secondary material is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107, subpart B—Exemptions; 49 CFR part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR part 173—Shippers—General Requirements for Shipments and Packages and 49 CFR part 180—Continuing Qualification and Maintenance of Packagings.

(c) For the purpose of complying with this subchapter, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed.

(7) PROCEDURE FOR DETERMINING NO DETECTABLE ORGANIC EMISSIONS. The procedures specified in pars. NR 661.1083 (4) shall be used to determine compliance with the no detectable organic emissions requirement of sub. (4) (a) 2.

(8) PROCEDURE FOR DETERMINING A CONTAINER TO BE VAPOR−TIGHT. To determine compliance with the vapor-tight container requirement of sub. (4) (a) 3., use the following procedure:

(a) The test shall be performed in accordance with Method 27 in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11.

(b) A pressure measurement device shall be used that has a precision of ±2.5 mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

(c) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within 5 minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

NR 661.1087 Standards: closed-vent systems and control devices. (1) This section applies to each closed-vent system and control device installed and operated by the

remanufacturer or other person who stores or treats the hazardous secondary material to control air emissions in accordance with standards of this subchapter.

(2) The closed-vent system shall meet all of the following requirements:

(a) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous secondary material in the hazardous secondary material management unit to a control device that meets the requirements specified in sub. (3).

(b) The closed-vent system shall be designed and operated in accordance with the requirements specified in s. NR 661.1033 (11).

(c) In the case when the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in subd. 1. or a seal or locking device as specified in subd. 2. For the purpose of complying with this paragraph, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

1. If a flow indicator is used to comply with this paragraph, the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For this paragraph, a flow indicator means a device that indicates the presence of either gas or vapor flow in the bypass line.

2. If a seal or locking device is used to comply with this paragraph, the device shall be placed on the mechanism by which the bypass device position is controlled, such as the valve handle or damper lever, when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include a car-seal or a lock-and-key configuration valve. The remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

(d) The closed-vent system shall be inspected and monitored by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the procedure specified in s. NR 661.1033 (12).

(3) The control device shall meet all of the following applicable requirements:

(a) The control device shall be one of the following devices:

1. A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight.

2. An enclosed combustion device designed and operated in accordance with the requirements specified in s. NR 661.1033 (3).

3. A flare designed and operated in accordance with the requirements specified in s. NR 661.1033 (4).

(b) The remanufacturer or other person that stores or treats the hazardous secondary material who elects to use a closed-vent system and control device to comply with the requirements of this section shall comply with all of the following requirements:

1. Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications under par. (a) 1., 2. or 3., as applicable, shall not exceed 240 hours per year.

2. The specifications and requirements under par. (a) 1. to 3. for control devices do not apply during periods of planned routine maintenance.

3. The specifications and requirements under par. (a) 1. to 3. for control devices do not apply during a control device system malfunction.

4. The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate compliance with the requirements specified in subd. 1. by recording the information specified in s. NR 661.1089 (5) (a) 5.

5. The remanufacturer or other person that stores or treats the hazardous secondary material shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

6. The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the closed-vent system such that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction, such as periods when the control device is not operating or not operating normally, except in cases when it is necessary to vent the gases, vapors, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

(c) The remanufacturer or other person that stores or treats the hazardous secondary material using a carbon adsorption system to comply with par. (a) shall operate and maintain the control device in accordance with all of the following requirements:

1. Following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements specified in s. NR 661.1033 (7) or (8).

2. All carbon that is hazardous waste and that is removed from the control device shall be managed in accordance with the requirements specified in s. NR 661.1033 (14), regardless of the average volatile organic concentration of the carbon.

(d) A remanufacturer or other person that stores or treats the hazardous secondary material using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with par. (a) shall operate and maintain the control device in accordance with the requirements specified in s. NR 661.1033 (10).

(e) The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate that a control device achieves the performance requirements specified in par. (a) as follows:

1. A remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate, using either a performance test as specified in subd. 3. or a design analysis as specified in subd. 4., the performance of each control device except any of the following:

a. A flare.

b. A boiler or process heater with a design heat input capacity of 44 megawatts or greater.

c. A boiler or process heater into which the vent stream is introduced with the primary fuel.

2. A remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate the performance of each flare in accordance with the requirements specified in s. NR 661.1033 (5).

3. For a performance test conducted to meet the requirements specified in subd. 1, the remanufacturer or other person that stores or treats the hazardous secondary material shall use the test methods and procedures specified in s. NR 661.1034 (3) (a) to (d).

4. For a design analysis conducted to meet the requirements specified in subd. 1, the design analysis shall meet the requirements specified in s. NR 661.1035 (2) (d) 3.

5. The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate that a carbon adsorption system achieves the performance requirements specified in par. (a) based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

(f) If the remanufacturer or other person that stores or treats the hazardous secondary material and the department do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the requirements specified in par. (e) 3. The department may choose to have an authorized representative observe the performance test.

(g) The closed-vent system and control device shall be inspected and monitored by the remanufacture or other person that stores or treats the hazardous secondary material in accordance with the procedures specified in s. NR 661.1033 (6) (b) and (12). The readings from each monitoring device required under s. NR 661.1033 (6) (b) shall be inspected at least once each operating day to check control device operation. Any necessary corrective measures shall be immediately implemented to ensure the control device is operated in compliance with the requirements of this section.

NR 661.1088 Inspection and monitoring requirements. (1) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor air emission control equipment used to comply with this subchapter in accordance with the applicable requirements specified in ss. NR 661.1084 to 661.1087.

(2) The remanufacture or other person that stores or treats the hazardous secondary material shall develop and implement a written plan and schedule to perform the inspections and

monitoring required under sub. (1). The remanufacturer or other person that stores or treats the hazardous secondary material shall keep the plan and schedule at the facility.

NR 661.1089 Recordkeeping requirements. (1) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to requirements of this subchapter shall record and maintain the information specified in subs. (2) to (10), as applicable to the facility. Except for air emission control equipment design documentation and information required by subs. (9) and (10), records required by this section shall be maintained at the facility for a minimum of 3 years. Air emission control equipment design documentation shall be maintained at the facility until the air emission control equipment is replaced or otherwise no longer in service. Information required under subs. (9) and (10) shall be maintained at the facility for as long as the hazardous secondary material management unit is not using air emission controls specified in ss. NR 661.1084 to 661.1087 in accordance with the conditions specified in s. NR 661.1080 (a).

(2) The remanufacturer or other person that stores or treats the hazardous secondary material using a tank with air emission controls in accordance with the requirements under s. NR 661.1084 shall prepare and maintain records for the tank that include all of the following information:

(a) For each tank using air emission controls in accordance with the requirements specified in s. NR 661.1084, the remanufacturer or other person that stores or treats the hazardous secondary material shall record all of the following:

1. A tank identification number or other unique identification description as selected by the remanufacturer or other person that stores or treats the hazardous secondary material.

2. A record for each inspection required under s. NR 661.1084 that includes all of the following information:

a. Date inspection was conducted.

b. For each defect detected during the inspection, the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the requirements specified in s. NR 661.1084, the remanufacturer or other person that stores or treats the hazardous secondary

material shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(b) In addition to the information required under par. (a), the remanufacturer or other person that stores or treats the hazardous secondary material shall record all of the following information, as applicable to the tank:

1. The remanufacturer or other person that stores or treats the hazardous secondary material using a fixed roof to comply with the Tank Level 1 control requirements specified in s. NR 661.1084 (3) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous secondary material in the tank performed in accordance with the requirements specified in s. NR 661.1084 (3). The records shall include the date and time the samples were collected, the analysis method used, and the analysis results.

2. The remanufacturer or other person that stores or treats the hazardous secondary material using an internal floating roof to comply with the Tank Level 2 control requirements specified in s. NR 661.1084 (5) shall prepare and maintain documentation describing the floating roof design.

3. The remanufacturer or other person that stores or treats the hazardous secondary material using an external floating roof to comply with the Tank Level 2 control requirements specified in s. NR 661.1084 (6) shall prepare and maintain all of the following records:

a. Documentation describing the floating roof design and the dimensions of the tank.

b. Records for each seal gap inspection required under s. NR 661.1084 (6) (c) describing the results of the seal gap measurements. The records shall include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications under s. NR 661.1084 (6) (a), the records shall include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

4. Each remanufacturer or other person that stores or treats the hazardous secondary material using an enclosure to comply with the Tank Level 2 control requirements specified in s. NR 661.1084 (9) shall prepare and maintain all of the following records:

a. Records for the most recent set of calculations and measurements performed by the remanufacturer or other person that stores or treats the hazardous secondary material to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure

T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B.

b. Records required for the closed-vent system and control device in accordance with the requirements specified in sub. (5).

(4) The remanufacturer or other person that stores or treats the hazardous secondary material using containers with Container Level 3 air emission controls in accordance with the requirements specified in s. NR 661.1086 shall prepare and maintain records that include all of the following information:

(a) Records for the most recent set of calculations and measurements performed by the remanufacturer or other person that stores or treats the hazardous secondary material to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B.

(b) Records required for the closed-vent system and control device in accordance with the requirements specified in sub. (5).

(5) The remanufacturer or other person that stores or treats the hazardous secondary material using a closed-vent system and control device in accordance with the requirements specified in s. NR 661.1087 shall prepare and maintain records that include all of the following information:

(a) Documentation for the closed-vent system and control device that includes all of the following:

1. Certification that is signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material stating that the control device is designed to operate at the performance level documented by a design analysis as specified in subd. 2. or by performance tests as specified in subd. 3. when the tank or container is or would be operating at capacity or the highest level reasonably expected to occur.

2. If a design analysis is used, then design documentation as specified in s. NR 661.1035 (b) (4). The documentation shall include information prepared by the remanufacturer or other person that stores or treats the hazardous secondary material or provided by the control device manufacturer or vendor that describes the control device design in accordance with s. NR

661.1035 (2) (d) 3. and certification by the remanufacturer or other person that stores or treats the hazardous secondary material that the control equipment meets the applicable specifications.

3. If performance tests are used, then a performance test plan as specified in s. NR 661.1035 (2) (c) and all test results.

4. Information as required under s. NR 661.1035 (3) (a) and (b), as applicable.

5. A remanufacturer or other person that stores or treats the hazardous secondary material shall record, on a semiannual basis, all of the following information for those planned routine maintenance operations that would require the control device not to meet the requirements specified in s. NR 661.1087 (3) (a) 1., 2., or 3., as applicable:

a. A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6-month period. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

b. A description of the planned routine maintenance that was performed for the control device during the previous 6-month period. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements specified in s. NR 661.1087 (3) (a) 1., 2., or 3., as applicable, due to planned routine maintenance.

6. A remanufacturer or other person that stores or treats the hazardous secondary material shall record all of the following information for those unexpected control device system malfunctions that would require the control device not to meet the requirements specified in s. NR 661.1087 (3) (a) 1., 2., or 3., as applicable:

a. The occurrence and duration of each malfunction of the control device system.

b. The duration of each period during a malfunction when gases, vapors, or fumes are vented from the hazardous secondary material management unit through the closed-vent system to the control device while the control device is not properly functioning.

c. Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

7. Records of the management of carbon removed from a carbon adsorption system conducted in accordance with s. NR 661.1087 (3) (c) 2.

(6) The remanufacturer or other person that stores or treats the hazardous secondary material using a tank or container exempted under the hazardous secondary material organic

concentration conditions specified in s. NR 661.1082 (3) (a) or (b) 1. to 6, shall prepare and maintain at the facility records documenting the information used for each material determination, such as test results, measurements, calculations, and other documentation. If analysis results for material samples are used for the material determination, then the remanufacturer or other person that stores or treats the hazardous secondary material shall record the date, time, and location that each material sample is collected in accordance with applicable requirements specified in s. NR 661.1083.

(7) A remanufacturer or other person that stores or treats the hazardous secondary material designating a cover as "unsafe to inspect and monitor" as specified in s. NR 661.1084 (12) shall record and keep at the facility all of the following information:

(a) The identification numbers for hazardous secondary material management units with covers that are designated as "unsafe to inspect and monitor."

(b) The explanation for each cover stating why the cover is unsafe to inspect and monitor.

(c) The plan and schedule for inspecting and monitoring each cover.

(8) The remanufacturer or other person that stores or treats the hazardous secondary material that is subject to this subchapter and to the control device standards in 40 CFR part 60, subpart VV, or s. NR 440.62, or 40 CFR part 61, subpart V, may elect to demonstrate compliance with the applicable sections of this subchapter by documentation either pursuant to this subchapter, or pursuant to 40 CFR part 60, subpart VV, or s. NR 440.62, or 40 CFR part 61, subpart V, to the extent that the documentation required by 40 CFR part 60 or 61 or ch. NR 440 duplicates the documentation required by this section.

Chapter 661

Appendix I

REPRESENTATIVE SAMPLING METHODS

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the following sampling protocols, for sampling waste with properties similar to the following indicated materials, will be representative of the waste:

(1) Extremely viscous liquid — ASTM D140−70, incorporated by reference in s. NR 660.11.

(2) Crushed or powdered material — ASTM D346−75, incorporated by reference in s. NR 660.11.

(3) Soil or rock−like material — ASTM D420−69, incorporated by reference in s. NR 660.11.

(4) Soil−like material — ASTM D1452−65, incorporated by reference in s. NR 660.11.

(5) Fly ash−like material — ASTM D2234−76, incorporated by reference in s. NR 660.11.

(6) Containerized liquid wastes — "COLIWASA."

(7) Liquid waste in pits, ponds, lagoons and similar reservoirs — "Pond Sampler."

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Appendix VII

BASIS FOR LISTING HAZARDOUS WASTE

EPA hazardous waste number	Hazardous constituents for which listed
F001	Tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).

F011	Cyanide (salts).
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra and pentachlorodi-benzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F021	Penta- and hexachlorodibenzo-p- dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F023	Tetra-, and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1-2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetra-chloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorbenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.
F025	Chloromethane; Dichloromethane; Trichloromethane; Carbon tetrachloride; Chloroethylene; 1,1-Dichloroethane; 1,2-Dichloroethane; trans-1,2-Dichloroethylene; 1,1-Dichloroethylene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Pentachloroethane; Hexachloroethane; Allyl chloride (3-Chloropropene); Dichloropropane; Dichloropropene; 2-Chloro-1,3-butadiene; Hexachloro-1,3-butadiene; Hexachlorocyclopentadiene; Benzene; Chlorobenzene; Dichlorobenzene; 1,2,4-Trichlorobenzene; Tetrachlorobenzene; Pentachlorobenzene; Hexachlorobenzene; Toluene; Naphthalene.
F026	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F027	Tetra-, penta-, and hexachlorodibenzo-p- dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

F028	Tetra-, penta-, and hexachlorodibenzo-p- dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F032	Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)-anthracene, indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo-p-dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans.
F034	Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, arsenic, chromium.
F035	Arsenic, chromium, lead.
F037	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F038	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F039	All constituents for which treatment standards are specified for multi-source leachate (wastewaters and nonwastewaters) under 40 CFR 668.43, Table CCW.
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, creosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene.
K002	Hexavalent chromium, lead
K003	Hexavalent chromium, lead.
K004	Hexavalent chromium.
K005	Hexavalent chromium, lead.
K006	Hexavalent chromium.
K007	Cyanide (complexed), hexavalent chromium.
K008	Hexavalent chromium.
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid.
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.
K011	Acrylonitrile, acetonitrile, hydrocyanic acid.
K013	Hydrocyanic acid, acrylonitrile, acetonitrile.
K014	Acetonitrile, acrylamide.
K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride.

K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.
K017	Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols.
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.
K019	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K021	Antimony, carbon tetrachloride, chloroform.
K022	Phenol, tars (polycyclic aromatic hydrocarbons).
K023	Phthalic anhydride, maleic anhydride.
K024	Phthalic anhydride, 1,4-naphthoquinone.
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene.
K026	Paraldehyde, pyridines, 2-picoline.
K027	Toluene diisocyanate, toluene-2, 4-diamine.
K028	1,1,1-trichloroethane, vinyl chloride.
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.
K031	Arsenic.
K032	Hexachlorocyclopentadiene.
K033	Hexachlorocyclopentadiene.
K034	Hexachlorocyclopentadiene.
K035	Creosote, chrysene, naphthalene, fluoranthene benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene.
K036	Toluene, phosphorodithioic and phosphorothioic acid esters.

K037	Toluene, phosphorodithioic and phosphorothioic acid esters.
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K039	Phosphorodithioic and phosphorothioic acid esters.
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K041	Toxaphene.
K042	Hexachlorobenzene, ortho-dichlorobenzene.
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.
K044	N.A.
K045	N.A.
K046	Lead.
K047	N.A.
K048	Hexavalent chromium, lead.
K049	Hexavalent chromium, lead.
K050	Hexavalent chromium.
K051	Hexavalent chromium, lead.
K052	Lead.
K060	Cyanide, napthalene, phenolic compounds, arsenic.
K061	Hexavalent chromium, lead, cadmium.
K062	Hexavalent chromium, lead.
K069	Hexavalent chromium, lead, cadmium.
K071	Mercury.
K073	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine.
K084	Arsenic.
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.
K086	Lead, hexavalent chromium.
K087	Phenol, naphthalene.
K088	Cyanide (complexes).
K093	Phthalic anhydride, maleic anhydride.

K094	Phthalic anhydride.
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097	Chlordane, heptachlor.
K098	Toxaphene.
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100	Hexavalent chromium, lead, cadmium.
K101	Arsenic.
K102	Arsenic.
K103	Aniline, nitrobenzene, phenylenediamine.
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine.
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106	Mercury.
K107	1,1-Dimethylhydrazine (UDMH).
K108	1,1-Dimethylhydrazine (UDMH).
K109	1,1-Dimethylhydrazine (UDMH).
K110	1,1-Dimethylhydrazine (UDMH).
K111	2,4-Dinitrotoluene.
K112	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K113	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K114	2,4-Toluenediamine, o-toluidine, p-toluidine.
K115	2,4-Toluenediamine.
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.
K117	Ethylene dibromide.
K118	Ethylene dibromide.
K123	Ethylene thiourea.
K124	Ethylene thiourea.
K125	Ethylene thiourea.
K126	Ethylene thiourea.
K131	Dimethyl sulfate, methyl bromide.

K132	Methyl bromide.
K136	Ethylene dibromide.
K141	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K142	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K143	Benzene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene.
K144	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene.
K145	Benzene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene.
K147	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K148	Benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K149	Benzotrichloride, benzyl chloride, chloroform, chloromethane, chlorobenzene, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, toluene.
K150	Carbon tetrachloride, chloroform, chloromethane, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene.
K151	Benzene, carbon tetrachloride, chloroform, hexachlorobenzene, pentachlorobenzene, toluene, 1,2,4,5-tetrachlorobenzene, tetrachloroethylene.
K156	Benomyl, carbaryl, carbendazim, carbofuran, carbosulfan, formaldehyde, methylene chloride, triethylamine.
K157	Carbon tetrachloride, formaldehyde, methyl chloride, methylene chloride, pyridine, triethylamine.
K158	Benomyl, carbendazim, carbofuran, carbosulfan, chloroform, methylene chloride.
K159	Benzene, butylate, eptc, molinate, pebulate, vernolate.
K161	Antimony, arsenic, metam-sodium, ziram.
K169	Benzene.
K170	Benzo(a)pyrene, dibenz(a,h)anthracene, benzo (a) anthracene, benzo (b)fluoranthene, benzo(k)fluoranthene, 3-methylcholanthrene, 7, 12-dimethylbenz(a)anthracene.
K171	Benzene, arsenic.

K172	Benzene, arsenic.
K174	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD), 1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF), 1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,6,7,8,9-HpCDF), HxCDDs (All Hexachlorodibenzo-p-dioxins), HxCDFs (All Hexachlorodibenzofurans), PeCDDs (All Pentachlorodibenzo-p-dioxins), OCDD (1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin, OCDF (1,2,3,4,6,7,8,9-Octachlorodibenzofuran), PeCDFs (All Pentachlorodibenzofurans), TCDDs (All tetrachlorodi-benzo-p-dioxins), TCDFs (All tetrachlorodibenzofurans).
K175	Mercury
K176	Arsenic, Lead.
K177	Antimony.
K178	Thallium.
K181	Aniline, o-anisidine, 4-chloroaniline, p-cresidine, 2,4-dimethylaniline, 1,2-phenylenediamine, 1,3-phenylenediamine.

N.A.—Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.

Chapter 661

Appendix VIII

HAZARDOUS CONSTITUENTS

Common name	Chemical abstracts name	Chemical abstracts number	Hazardous waste number
A2213	Ethanimidothioic acid, 2-(dimethylamino) -N-hydroxy-2-oxo-, methyl ester	30558-43-1	U394
Acetonitrile	Same	75-05-8	U003
Acetophenone	Ethanone, 1-phenyl-	98-86-2	U004
2-Acetylaminefluarone	Acetamide, N-9H-fluoren-2-yl-	53-96-3	U005
Acetyl chloride	Same	75-36-5	U006
1-Acetyl-2-thiourea	Acetamide, N-(aminothioxomethyl)-	591-08-2	P002

Acrolein	2-Propenal	107-02-8	P003
Acrylamide	2-Propenamide	79-06-1	U007
Acrylonitrile	2-Propenenitrile	107-13-1	U009
Aflatoxins	Same	1402-68-2	
Aldicarb	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime	116-06-3	P070
Aldicarb sulfone	Propanal, 2-methyl-2-(methylsulfonyl) -, O-[(methylamino) carbonyl] oxime	1646-88-4	P203
Aldrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha, 8abeta)-	309-00-2	P004
Allyl alcohol	2-Propen-1-ol	107-18-6	P005
Allyl chloride	1-Propane, 3-chloro	107-05-1	
Aluminum phosphide	Same	20859-73-8	P006
4-Aminobiphenyl	[1,1′-Biphenyl]-4-amine	92-67-1	
5-(Aminomethyl)-3-isoxazolol	3(2H)-Isoxazolone, 5-(aminomethyl)-	2763-96-4	P007
4-Aminopyridine	4-Pyridinamine	504-24-5	P008
Amitrole	1H-1,2,4-Triazol-3-amine	61-82-5	U011
Ammonium vanadate	Vanadic acid, ammonium salt	7803-55-6	P119
Aniline	Benzenamine	62-53-3	U012
o-Anisidine (2-methoxyaniline)	Benzenamine, 2-Methoxy-	90-04-0	
Antimony	Same	7440-36-0	
Antimony compounds, N.O.S.[1]			
Aramite	Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester	140-57-8	
Arsenic	Same	7440-38-2	
Arsenic compounds, N.O.S. [1]			
Arsenic acid	Arsenic acid H3 AsO4	7778-39-4	P010

Arsenic pentoxide	Arsenic oxide As2 O5	1303-28-2	P011
Arsenic trioxide	Arsenic oxide As2 O3	1327-53-3	P012
Auramine	Benzenamine, 4,4′-carbonimidoylbis[N,N-dimethyl	492-80-8	U014
Azaserine	L-Serine, diazoacetate (ester)	115-02-6	U015
Barban	Carbamic acid, (3-chlorophenyl) -, 4-chloro-2-butynyl ester	101-27-9	U280
Barium	Same	7440-39-3	
Barium compounds, N.O.S. [1]			
Barium cyanide	Same	542-62-1	P013
Bendiocarb	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	22781-23-3	U278
Bendiocarb phenol	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	22961-82-6	U364
Benomyl	Carbamic acid, [1- [(butylamino) carbonyl]- 1H-benzimidazol-2-yl] -, methyl ester	17804-35-2	U271
Benz[c]acridine	Same	225-51-4	U016
Benz[a]anthracene	Same	56-55-3	U018
Benzal chloride	Benzene, (dichloromethyl)-	98-87-3	U017
Benzene	Same	71-43-2	U019
Benzenearsonic acid	Arsonic acid, phenyl-	98-05-5	
Benzidine	[1,1′-Biphenyl]-4,4′-diamine	92-87-5	U021
Benzo[b]fluoranthene	Benz[e]acephenanthrylene	205-99-2	
Benzo[j]fluoranthene	Same	205-82-3	
Benzo(k)fluoranthene	Same	207-08-9	
Benzo[a]pyrene	Same	50-32-8	U022
p-Benzoquinone	2,5-Cyclohexadiene-1,4-dione	106-51-4	U197
Benzotrichloride	Benzene, (trichloromethyl)-	98-07-7	U023
Benzyl chloride	Benzene, (chloromethyl)-	100-44-7	P028
Beryllium powder	Same	7440-41-7	P015
Beryllium compounds, N.O.S. [1]			

Bis(pentamethylene)-thiuram tetrasulfide	Piperidine, 1,1′-(tetrathiodicarbonothioyl)-bis-	120-54-7	
Bromoacetone	2-Propanone, 1-bromo-	598-31-2	P017
Bromoform	Methane, tribromo-	75-25-2	U225
4-Bromophenyl phenyl ether	Benzene, 1-bromo-4-phenoxy-	101-55-3	U030
Brucine	Strychnidin-10-one, 2,3-dimethoxy-	357-57-3	P018
Butyl benzyl phthalate	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	85-68-7	
Butylate	Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester	2008-41-5	
Cacodylic acid	Arsinic acid, dimethyl-	75-60-5	U136
Cadmium	Same	7440-43-9	
Cadmium compounds, N.O.S. [1]			
Calcium chromate	Chromic acid H2 CrO4, calcium salt	13765-19-0	U032
Calcium cyanide	Calcium cyanide Ca(CN)2	592-01-8	P021
Carbaryl	1-Naphthalenol, methylcarbamate	63-25-2	U279
Carbendazim	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	10605-21-7	U372
Carbofuran	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate	1563-66-2	P127
Carbofuran phenol	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	1563-38-8	U367
Carbon disulfide	Same	75-15-0	P022
Carbon oxyfluoride	Carbonic difluoride	353-50-4	U033
Carbon tetrachloride	Methane, tetrachloro-	56-23-5	U211
Carbosulfan	Carbamic acid, [(dibutylamino) thio] methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester	55285-14-8	P189
Chloral	Acetaldehyde, trichloro-	75-87-6	U034
Chlorambucil	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	305-03-3	U035
Chlordane	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	57-74-9	U036

Chlordane (alpha and gamma isomers)			U036
Chlorinated benzenes, N.O.S. [1]			
Chlorinated ethane, N.O.S. [1]			
Chlorinated fluorocarbons, N.O.S. [1]			
Chlorinated naphthalene, N.O.S.1			
Chlorinated phenol, N.O.S. [1]			
Chlornaphazin	Naphthalenamine, N,N′-bis(2-chloroethyl)-	494-03-1	U026
Chloroacetaldehyde	Acetaldehyde, chloro-	107-20-0	P023
Chloroalkyl ethers, N.O.S. [1]			
p-Chloroaniline	Benzenamine, 4-chloro-	106-47-8	P024
Chlorobenzene	Benzene, chloro-	108-90-7	U037
Chlorobenzilate	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester	510-15-6	U038
p-Chloro-m-cresol	Phenol, 4-chloro-3-methyl-	59-50-7	U039
2-Chloroethyl vinyl ether	Ethene, (2-chloroethoxy)-	110-75-8	U042
Chloroform	Methane, trichloro-	67-66-3	U044
Chloromethyl methyl ether	Methane, chloromethoxy-	107-30-2	U046
beta-Chloronaphthalene	Naphthalene, 2-chloro-	91-58-7	U047
o-Chlorophenol	Phenol, 2-chloro-	95-57-8	U048
1-(o-Chlorophenyl)thiourea	Thiourea, (2-chlorophenyl)-	5344-82-1	P026
Chloroprene	1,3-Butadiene, 2-chloro-	126-99-8	
3-Chloropropionitrile	Propanenitrile, 3-chloro-	542-76-7	P027
Chromium	Same	7440-47-3	
Chromium compounds, N.O.S. [1]			
Chrysene	Same	218-01-9	U050
Citrus red No. 2	2-Naphthalenol, 1-[(2,5-dimethoxyphenyl)azo]-	6358-53-8	

Coal tar creosote	Same	8007-45-2	
Copper cyanide	Copper cyanide CuCN	544-92-3	P029
Copper dimethyldithiocarbamate	Copper, bis(dimethylcarbamodithioato-S,S′)-,	137-29-1	
Creosote	Same		U051
p-Cresidine	2-Methoxy-5-methylbenzenamine	120-71-8	
Cresol (Cresylic acid)	Phenol, methyl-	1319-77-3	U052
Crotonaldehyde	2-Butenal	4170-30-3	U053
m-Cumenyl methylcarbamate	Phenol, 3-(methylethyl)-, methyl carbamate	64-00-6	P202
Cyanides (soluble salts and complexes) N.O.S. [1]			P030
Cyanogen	Ethanedinitrile	460-19-5	P031
Cyanogen bromide	Cyanogen bromide (CN)Br	506-68-3	U246
Cyanogen chloride	Cyanogen chloride (CN)Cl	506-77-4	P033
Cycasin	beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl	14901-08-7	
Cycloate	Carbamothioic acid, cyclohexylethyl-, S-ethyl ester	1134-23-2	
2-Cyclohexyl-4,6-dinitrophenol	Phenol, 2-cyclohexyl-4,6-dinitro-	131-89-5	P034
Cyclophosphamide	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide	50-18-0	U058
2,4-D	Acetic acid, (2,4-dichlorophenoxy)-	94-75-7	U240
2,4-D, salts, esters			U240
Daunomycin	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo- hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	20830-81-3	U059
Dazomet	2H-1,3,5-thiadiazine-2-thione, tetrahydro-3,5-dimethyl	533-74-4	
DDD	Benzene, 1,1′-(2,2-dichloroethylidene)bis[4-chloro-	72-54-8	U060

DDE	Benzene, 1,1′-(dichloroethenylidene)bis[4-chloro-	72-55-9	
DDT	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis[4-chloro-	50-29-3	U061
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	2303-16-4	U062
Dibenz[a,h]acridine	Same	226-36-8	
Dibenz[a,j]acridine	Same	224-42-0	
Dibenz[a,h]anthracene	Same	53-70-3	U063
7H-Dibenzo[c,g]carbazole	Same	194-59-2	
Dibenzo[a,e]pyrene	Naphtho[1,2,3,4-def]chrysene	192-65-4	
Dibenzo[a,h]pyrene	Dibenzo[b,def]chrysene	189-64-0	
Dibenzo[a,i]pyrene	Benzo[rst]pentaphene	189-55-9	U064
1,2-Dibromo-3-chloropropane	Propane, 1,2-dibromo-3-chloro-	96-12-8	U066
Dibutyl phthalate	1,2-Benzenedicarboxylic acid, dibutyl ester	84-74-2	U069
o-Dichlorobenzene	Benzene, 1,2-dichloro-	95-50-1	U070
m-Dichlorobenzene	Benzene, 1,3-dichloro-	541-73-1	U071
p-Dichlorobenzene	Benzene, 1,4-dichloro-	106-46-7	U072
Dichlorobenzene, N.O.S. [1]	Benzene, dichloro-	25321-22-6	
3,3′-Dichlorobenzidine	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dichloro-	91-94-1	U073
1,4-Dichloro-2-butene	2-Butene, 1,4-dichloro-	764-41-0	U074
Dichlorodifluoromethane	Methane, dichlorodifluoro-	75-71-8	U075
Dichloroethylene, N.O.S. [1]	Dichloroethylene	25323-30-2	
1,1-Dichloroethylene	Ethene, 1,1-dichloro-	75-35-4	U078
1,2-Dichloroethylene	Ethene, 1,2-dichloro-, (E)-	156-60-5	U079
Dichloroethyl ether	Ethane, 1,1′oxybis[2-chloro-	111-44-4	U025
Dichloroisopropyl ether	Propane, 2,2′-oxybis[2-chloro-	108-60-1	U027
Dichloromethoxy ethane	Ethane, 1,1′-[methylenebis(oxy)]bis[2-chloro-	111-91-1	U024

Dichloromethyl ether	Methane, oxybis[chloro-	542-88-1	P016
2,4-Dichlorophenol	Phenol, 2,4-dichloro-	120-83-2	U081
2,6-Dichlorophenol	Phenol, 2,6-dichloro-	87-65-0	U082
Dichlorophenylarsine	Arsonous dichloride, phenyl-	696-28-6	P036
Dichloropropane, N.O.S. [1]	Propane, dichloro-	26638-19-7	
Dichloropropanol, N.O.S. [1]	Propanol, dichloro-	26545-73-3	
Dichloropropene, N.O.S. [1]	1-Propene, dichloro-	26952-23-8	
1,3-Dichloropropene	1-Propene, 1,3-dichloro-	542-75-6	U084
Dieldrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)-	60-57-1	P037
1,2:3,4-Diepoxybutane	2,2′-Bioxirane	1464-53-5	U085
Diethylarsine	Arsine, diethyl-	692-42-2	P038
Diethylene glycol, dicarbamate	Ethanol, 2,2′-oxybis-, dicarbamate	5952-26-1	U395
1,4-Diethyleneoxide	1,4-Dioxane	123-91-1	U108
Diethylhexyl phthalate	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	117-81-7	U028
N,N′-Diethylhydrazine	Hydrazine, 1,2-diethyl-	1615-80-1	U086
O,O-Diethyl S-methyl dithiophosphate	Phosphorodithioic acid, O,O-diethyl S-methyl ester	3288-58-2	U087
Diethyl-p-nitrophenyl phosphate	Phosphoric acid, diethyl 4-nitrophenyl ester	311-45-5	P041
Diethyl phthalate	1,2-Benzenedicarboxylic acid, diethyl ester	84-66-2	U088
O,O-Diethyl O-pyrazinylphosphoro-thioate	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	297-97-2	P040
Diethylstilbesterol	Phenol, 4,4′-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-	56-53-1	U089
Dihydrosafrole	1,3-Benzodioxole, 5-propyl-	94-58-6	U090
Diisopropylfluorophosphate (DFP)	Phosphorofluoridic acid, bis(1-methylethyl) ester	55-91-4	P043

Dimethoate	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	60-51-5	P044
3,3′-Dimethoxybenzidine	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dimethoxy-	119-90-4	U091
p-Dimethylaminoazobenzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-	60-11-7	U093
2,4-Dimethylaniline (2,4-xylidine)	Benzenamine, 2,4-dimethyl-	95-68-1	
7,12-Dimethylbenz[a]anthracene	Benz[a]anthracene, 7,12-dimethyl-	57-97-6	U094
3,3′-Dimethylbenzidine	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dimethyl-	119-93-7	U095
Dimethylcarbamoyl chloride	Carbamic chloride, dimethyl-	79-44-7	U097
1,1-Dimethylhydrazine	Hydrazine, 1,1-dimethyl-	57-14-7	U098
1,2-Dimethylhydrazine	Hydrazine, 1,2-dimethyl-	540-73-8	U099
alpha,alpha-Dimethylphenethylamine	Benzeneethanamine, alpha,alpha-dimethyl-	122-09-8	P046
2,4-Dimethylphenol	Phenol, 2,4-dimethyl-	105-67-9	U101
Dimethyl phthalate	1,2-Benzenedicarboxylic acid, dimethyl ester	131-11-3	U102
Dimethyl sulfate	Sulfuric acid, dimethyl ester	77-78-1	U103
Dimetilan	Carbamic acid, dimethyl-, 1-[(dimethylamino) carbonyl]-5-methyl-1H-pyrazol-3-yl ester	644-64-4	P191
Dinitrobenzene, N.O.S. [1]	Benzene, dinitro-	25154-54-5	
4,6-Dinitro-o-cresol	Phenol, 2-methyl-4,6-dinitro-	534-52-1	P047
4,6-Dinitro-o-cresol salts			P047
2,4-Dinitrophenol	Phenol, 2,4-dinitro-	51-28-5	P048
2,4-Dinitrotoluene	Benzene, 1-methyl-2,4-dinitro-	121-14-2	U105
2,6-Dinitrotoluene	Benzene, 2-methyl-1,3-dinitro-	606-20-2	U106
Dinoseb	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	88-85-7	P020

Di-n-octyl phthalate	1,2-Benzenedicarboxylic acid, dioctyl ester	117-84-0	U017
Diphenylamine	Benzenamine, N-phenyl-	122-39-4	
1,2-Diphenylhydrazine	Hydrazine, 1,2-diphenyl-	122-66-7	U109
Di-n-propylnitrosamine	1-Propanamine, N-nitroso-N-propyl-	621-64-7	U111
Disulfiram	Thioperoxydicarbonic diamide, tetraethyl	97-77-8	
Disulfoton	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	298-04-4	P039
Dithiobiuret	Thioimidodicarbonic diamide [(H2 N)C(S)]2 NH	541-53-7	P049
Endosulfan	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide	115-29-7	P050
Endothall	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145-73-3	P088
Endrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octa-hydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)-	72-20-8	P051
Endrin metabolites			P051
Epichlorohydrin	Oxirane, (chloromethyl)-	106-89-8	U041
Epinephrine	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-	51-43-4	P042
EPTC	Carbamothioic acid, dipropyl-, S-ethyl ester	759-94-4	
Ethyl carbamate (urethane)	Carbamic acid, ethyl ester	51-79-6	U238
Ethyl cyanide	Propanenitrile	107-12-0	P101
Ethyl Ziram	Zinc, bis(diethylcarbamodithioato-S,S′)-	14324-55-1	
Ethylenebisdithiocarbamic acid	Carbamodithioic acid, 1,2-ethanediylbis-	111-54-6	U114
Ethylenebisdithiocarbamic acid, salts and esters			U114

Ethylene dibromide	Ethane, 1,2-dibromo-	106-93-4	U067
Ethylene dichloride	Ethane, 1,2-dichloro-	107-06-2	U077
Ethylene glycol monoethyl ether	Ethanol, 2-ethoxy-	110-80-5	U359
Ethyleneimine	Aziridine	151-56-4	P054
Ethylene oxide	Oxirane	75-21-8	U115
Ethylenethiourea	2-Imidazolidinethione	96-45-7	U116
Ethylidene dichloride	Ethane, 1,1-dichloro-	75-34-3	U076
Ethyl methacrylate	2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2	U118
Ethyl methanesulfonate	Methanesulfonic acid, ethyl ester	62-50-0	U119
Famphur	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester	52-85-7	P097
Ferbam	Iron, tris(dimethylcarbamodithioato-S,S′)-,	14484-64-1	
Fluoranthene	Same	206-44-0	U120
Fluorine	Same	7782-41-4	P056
Fluoroacetamide	Acetamide, 2-fluoro-	640-19-7	P057
Fluoroacetic acid, sodium salt	Acetic acid, fluoro-, sodium salt	62-74-8	P058
Formaldehyde	Same	50-00-0	U122
Formetanate hydrochloride	Methanimidamide, N,N-dimethyl-N′-[3-[[(methylamino) carbonyl]oxy]phenyl]-, monohydrochloride	23422-53-9	P198
Formic acid	Same	64-18-6	U123
Formparanate	Methanimidamide, N,N-dimethyl-N′-[2-methyl-4-[[(methylamino) carbonyl]oxy]phenyl]-	17702-57-7	P197
Glycidylaldehyde	Oxiranecarboxyaldehyde	765-34-4	U126
Halomethanes, N.O.S. [1]			
Heptachlor	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	76-44-8	P059

Heptachlor epoxide	2,5-Methano-2H-indeno[1,2-b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexa-hydro-, (1aalpha,1bbeta,2alpha,5alpha, 5abeta,6beta,6aalpha)-	1024-57-3	
Heptachlor epoxide (alpha, beta, and gamma isomers)			
Heptachlorodibenzofurans			
Heptachlorodibenzo-p-dioxins			
Hexachlorobenzene	Benzene, hexachloro-	118-74-1	U127
Hexachlorobutadiene	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87-68-3	U128
Hexachlorocyclopentadiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77-47-4	U130
Hexachlorodibenzo-p-dioxins			
Hexachlorodibenzofurans			
Hexachloroethane	Ethane, hexachloro-	67-72-1	U131
Hexachlorophene	Phenol, 2,2′-methylenebis[3,4,6-trichloro-	70-30-4	U132
Hexachloropropene	1-Propene, 1,1,2,3,3,3-hexachloro-	1888-71-7	U243
Hexaethyl tetraphosphate	Tetraphosphoric acid, hexaethyl ester	757-58-4	P062
Hydrazine	Same	302-01-2	U133
Hydrogen cyanide	Hydrocyanic acid	74-90-8	P063
Hydrogen fluoride	Hydrofluoric acid	7664-39-3	U134
Hydrogen sulfide	Hydrogen sulfide H2 S	7783-06-4	U135
Indeno[1,2,3-cd]pyrene	Same	193-39-5	U137
3-Iodo-2-propynyl n-butylcarbamate	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406-53-6	
Isobutyl alcohol	1-Propanol, 2-methyl-	78-83-1	U140
Isodrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-,	465-73-6	P060

	(1alpha,4alpha,4abeta,5beta, 8beta,8abeta)-		
Isolan	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester	119-38-0	P192
Isosafrole	1,3-Benzodioxole, 5-(1-propenyl)-	120-58-1	U141
Kepone	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-	143-50-0	U142
Lasiocarpine	2-Butenoic acid, 2-methyl-,7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-	303-34-4	U143
Lead	Same	7439-92-1	
Lead compounds, N.O.S. [1]			
Lead acetate	Acetic acid, lead(2 +) salt	301-04-2	U144
Lead phosphate	Phosphoric acid, lead(2 +) salt (2:3)	7446-27-7	U145
Lead subacetate	Lead, bis(acetato-O)tetrahydroxytri-	1335-32-6	U146
Lindane	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha, 5alpha,6beta)-	58-89-9	U129
Maleic anhydride	2,5-Furandione	108-31-6	U147
Maleic hydrazide	3,6-Pyridazinedione, 1,2-dihydro-	123-33-1	U148
Malononitrile	Propanedinitrile	109-77-3	U149
Manganese dimethyldithiocarbamate	Manganese, bis(dimethylcarbamodithioato-S,S′)-,	15339-36-3	P196
Melphalan	L-Phenylalanine, 4-[bis(2-chloroethyl)aminol]-	148-82-3	U150
Mercury	Same	7439-97-6	U151
Mercury compounds, N.O.S. [1]			

Mercury fulminate	Fulminic acid, mercury(2 +) salt	628-86-4	P065
Metam Sodium	Carbamodithioic acid, methyl-, monosodium salt	137-42-8	
Methacrylonitrile	2-Propenenitrile, 2-methyl-	126-98-7	U152
Methapyrilene	1,2-Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)-	91-80-5	U155
Methiocarb	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	2032-65-7	P199
Methomyl	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester	16752-77-5	P066
Methoxychlor	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis[4-methoxy-	72-43-5	U247
Methyl bromide	Methane, bromo-	74-83-9	U029
Methyl chloride	Methane, chloro-	74-87-3	U045
Methyl chlorocarbonate	Carbonochloridic acid, methyl ester	79-22-1	U156
Methyl chloroform	Ethane, 1,1,1-trichloro-	71-55-6	U226
3-Methylcholanthrene	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	56-49-5	U157
4,4′-Methylenebis(2-chloroaniline)	Benzenamine, 4,4′-methylenebis[2-chloro-	101-14-4	U158
Methylene bromide	Methane, dibromo-	74-95-3	U068
Methylene chloride	Methane, dichloro-	75-09-2	U080
Methyl ethyl ketone (MEK)	2-Butanone	78-93-3	U159
Methyl ethyl ketone peroxide	2-Butanone, peroxide	1338-23-4	U160
Methyl hydrazine	Hydrazine, methyl-	60-34-4	P068
Methyl iodide	Methane, iodo-	74-88-4	U138
Methyl isocyanate	Methane, isocyanato-	624-83-9	P064
2-Methyllactonitrile	Propanenitrile, 2-hydroxy-2-methyl-	75-86-5	P069
Methyl methacrylate	2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	U162
Methyl methanesulfonate	Methanesulfonic acid, methyl ester	66-27-3	

Methyl parathion	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	298-00-0	P071
Methylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	56-04-2	U164
Metolcarb	Carbamic acid, methyl-, 3-methylphenyl ester	1129-41-5	P190
Mexacarbate	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	315-18-4	P128
Mitomycin C	Azirino[2′,3′:3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5- methyl-, [1aS-(1aalpha,8beta,8aalpha,8balpha)]-.	50-07-7	U010
MNNG	Guanidine, N-methyl-N′-nitro-N-nitroso-	70-25-7	U163
Molinate	1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester	2212-67-1	
Mustard gas	Ethane, 1,1′-thiobis[2-chloro-	505-60-2	
Naphthalene	Same	91-20-3	U165
1,4-Naphthoquinone	1,4-Naphthalenedione	130-15-4	U166
alpha-Naphthylamine	1-Naphthalenamine	134-32-7	U167
beta-Naphthylamine	2-Naphthalenamine	91-59-8	U168
alpha-Naphthylthiourea	Thiourea, 1-naphthalenyl-	86-88-4	P072
Nickel	Same	7440-02-0	
Nickel compounds, N.O.S. [1]			
Nickel carbonyl	Nickel carbonyl Ni(CO)4, (T-4)-	13463-39-3	P073
Nickel cyanide	Nickel cyanide Ni(CN)2	557-19-7	P074
Nicotine	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	54-11-5	P075
Nicotine salts			P075
Nitric oxide	Nitrogen oxide NO	10102-43-9	P076
p-Nitroaniline	Benzenamine, 4-nitro-	100-01-6	P077

Nitrobenzene	Benzene, nitro-	98-95-3	U169
Nitrogen dioxide	Nitrogen oxide NO2	10102-44-0	P078
Nitrogen mustard	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-	51-75-2	
Nitrogen mustard, hydrochloride salt			
Nitrogen mustard N-oxide	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-, N-oxide	126-85-2	
Nitrogen mustard, N-oxide, hydro- chloride salt			
Nitroglycerin	1,2,3-Propanetriol, trinitrate	55-63-0	P081
p-Nitrophenol	Phenol, 4-nitro-	100-02-7	U170
2-Nitropropane	Propane, 2-nitro-	79-46-9	U171
Nitrosamines, N.O.S. [1]		35576-91-1	
N-Nitrosodi-n-butylamine	1-Butanamine, N-butyl-N-nitroso-	924-16-3	U172
N-Nitrosodiethanolamine	Ethanol, 2,2′-(nitrosoimino)bis-	1116-54-7	U173
N-Nitrosodiethylamine	Ethanamine, N-ethyl-N-nitroso-	55-18-5	U174
N-Nitrosodimethylamine	Methanamine, N-methyl-N-nitroso-	62-75-9	P082
N-Nitroso-N-ethylurea	Urea, N-ethyl-N-nitroso-	759-73-9	U176
N-Nitrosomethylethylamine	Ethanamine, N-methyl-N-nitroso-	10595-95-6	
N-Nitroso-N-methylurea	Urea, N-methyl-N-nitroso-	684-93-5	U177
N-Nitroso-N-methylurethane	Carbamic acid, methylnitroso-, ethyl ester	615-53-2	U178
N-Nitrosomethylvinylamine	Vinylamine, N-methyl-N-nitroso-	4549-40-0	P084
N-Nitrosomorpholine	Morpholine, 4-nitroso-	59-89-2	
N-Nitrosonornicotine	Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)-	16543-55-8	
N-Nitrosopiperidine	Piperidine, 1-nitroso-	100-75-4	U179
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-	930-55-2	U180
N-Nitrososarcosine	Glycine, N-methyl-N-nitroso-	13256-22-9	
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-	99-55-8	U181

Octachlorodibenzo-p-dioxin (OCDD)	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	
Octachlorodibenzofuran (OCDF)	1,2,3,4,6,7,8,9-Octachlorodibenofuran	39001-02-0	
Octamethylpyrophosphoramide	Diphosphoramide, octamethyl-	152-16-9	P085
Osmium tetroxide	Osmium oxide OsO4, (T-4)-	20816-12-0	P087
Oxamyl	Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester	23135-22-0	P194
Paraldehyde	1,3,5-Trioxane, 2,4,6-trimethyl-	123-63-7	U182
Parathion	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	56-38-2	P089
Pebulate	Carbamothioic acid, butylethyl-, S-propyl ester	1114-71-2	
Pentachlorobenzene	Benzene, pentachloro-	608-93-5	U183
Pentachlorodibenzo-p-dioxins			
Pentachlorodibenzofurans			
Pentachloroethane	Ethane, pentachloro-	76-01-7	U184
Pentachloronitrobenzene (PCNB)	Benzene, pentachloronitro-	82-68-8	U185
Pentachlorophenol	Phenol, pentachloro-	87-86-5	See F027
Phenacetin	Acetamide, N-(4-ethoxyphenyl)-	62-44-2	U187
Phenol	Same	108-95-2	U188
1,2-Phenylenediamine	1,2-Benzenediamine	95-54-5	
1,3-Phenylenediamine	1,3-Benzenediamine	108-45-2	
Phenylenediamine	Benzenediamine	25265-76-3	
Phenylmercury acetate	Mercury, (acetato-O)phenyl-	62-38-4	P092
Phenylthiourea	Thiourea, phenyl-	103-85-5	P093
Phosgene	Carbonic dichloride	75-44-5	P095
Phosphine	Same	7803-51-2	P096
Phorate	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	298-02-2	P094

Phthalic acid esters, N.O.S. [1]			
Phthalic anhydride	1,3-Isobenzofurandione	85-44-9	U190
Physostigmine	Pyrrolo[2,3-b]indol-5-01, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-	57-47-6	P204
Physostigmine salicylate	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo [2,3-b]indol-5-yl methylcarbamate ester (1:1)	57-64-7	P188
2-Picoline	Pyridine, 2-methyl-	109-06-8	U191
Polychlorinated biphenyls, N.O.S.1			
Potassium cyanide	Potassium cyanide K(CN)	151-50-8	P098
Potassium dimethyldithiocarbamate	Carbamodithioic acid, dimethyl, potassium salt	128-03-0	
Potassium n-hydroxymethyl-n-methyl-dithiocarbamate	Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt	51026-28-9	
Potassium n-methyldithiocarbamate	Carbamodithioic acid, methyl-monopotassium salt	137-41-7	
Potassium pentachlorophenate	Pentachlorophenol, potassium salt	7778736	None
Potassium silver cyanide	Argentate(1-), bis(cyano-C)-, potassium	506-61-6	P099
Promecarb	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	2631-37-0	P201
Pronamide	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	23950-58-5	U192
1,3-Propane sultone	1,2-Oxathiolane, 2,2-dioxide	1120-71-4	U193
n-Propylamine	1-Propanamine	107-10-8	U194
Propargyl alcohol	2-Propyn-1-ol	107-19-7	P102
Propham	Carbamic acid, phenyl-, 1-methylethyl ester	122-42-9	U373
Propoxur	Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	U411

Propylene dichloride	Propane, 1,2-dichloro-	78-87-5	U083
1,2-Propylenimine	Aziridine, 2-methyl-	75-55-8	P067
Propylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-propyl-2-thioxo-	51-52-5	
Prosulfocarb	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	52888-80-9	U387
Pyridine	Same	110-86-1	U196
Reserpine	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-smethyl ester, (3beta,16beta,17alpha,18beta,20alpha)-	50-55-5	U200
Resorcinol	1,3-Benzenediol	108-46-3	U201
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-	94-59-7	U203
Selenium	Same	7782-49-2	
Selenium compounds, N.O.S. [1]			
Selenium dioxide	Selenious acid	7783-00-8	U204
Selenium sulfide	Selenium sulfide SeS2	7488-56-4	U205
Selenium, tetrakis(dimethyl-dithiocarbamate)	Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid	144-34-3	
Selenourea	Same	630-10-4	P103
Silver	Same	7440-22-4	
Silver compounds, N.O.S. [1]			
Silver cyanide	Silver cyanide Ag(CN)	506-64-9	P104
Silvex (2,4,5-TP)	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	93-72-1	See F027
Sodium cyanide	Sodium cyanide Na(CN)	143-33-9	P106
Sodium dibutyldithiocarbamate	Carbamodithioic acid, dibutyl, sodium salt	136-30-1	
Sodium diethyldithiocarbamate	Carbamodithioic acid, diethyl-, sodium salt	148-18-5	

Sodium dimethyldithiocarbamate	Carbamodithioic acid, dimethyl-, sodium salt	128-04-1	
Sodium pentachlorophenate	Pentachlorophenol, sodium salt	131522	None
Streptozotocin	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)carbonyl]amino]-	18883-66-4	U206
Strychnine	Strychnidin-10-one	57-24-9	P108
Strychnine salts			P108
Sulfallate	Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester	95-06-7	
TCDD	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-	1746-01-6	
Tetrabutylthiuram disulfide	Thioperoxydicarbonic diamide, tetrabutyl	1634-02-2	
1,2,4,5-Tetrachlorobenzene	Benzene, 1,2,4,5-tetrachloro-	95-94-3	U207
Tetrachlorodibenzo-p-dioxins			
Tetrachlorodibenzofurans			
Tetrachloroethane, N.O.S. [1]	Ethane, tetrachloro-, N.O.S.	25322-20-7	
1,1,1,2-Tetrachloroethane	Ethane, 1,1,1,2-tetrachloro-	630-20-6	U208
1,1,2,2-Tetrachloroethane	Ethane, 1,1,2,2-tetrachloro-	79-34-5	U209
Tetrachloroethylene	Ethene, tetrachloro-	127-18-4	U210
2,3,4,6-Tetrachlorophenol	Phenol, 2,3,4,6-tetrachloro-	58-90-2	See F027
2,3,4,6-tetrachlorophenol, potassium salt	same	53535276	None
2,3,4,6-tetrachlorophenol, sodium salt	same	25567559	None
Tetraethyldithiopyrophosphate	Thiodiphosphoric acid, tetraethyl ester	3689-24-5	P109
Tetraethyl lead	Plumbane, tetraethyl-	78-00-2	P110
Tetraethyl pyrophosphate	Diphosphoric acid, tetraethyl ester	107-49-3	P111
Tetramethylthiuram monosulfide	Bis(dimethylthiocarbamoyl) sulfide	97-74-5	
Tetranitromethane	Methane, tetranitro-	509-14-8	P112

Thallium	Same	7440-28-0	
Thallium compounds, N.O.S. [1]			
Thallic oxide	Thallium oxide Tl2 O3	1314-32-5	P113
Thallium(I) acetate	Acetic acid, thallium(1 +) salt	563-68-8	U214
Thallium(I) carbonate	Carbonic acid, dithallium(1 +) salt	6533-73-9	U215
Thallium(I) chloride	Thallium chloride TlCl	7791-12-0	U216
Thallium(I) nitrate	Nitric acid, thallium(1 +) salt	10102-45-1	U217
Thallium selenite	Selenious acid, dithallium(1 +) salt	12039-52-0	P114
Thallium(I) sulfate	Sulfuric acid, dithallium(1 +) salt	7446-18-6	P115
Thioacetamide	Ethanethioamide	62-55-5	U218
Thiodicarb	Ethanimidothioic acid, N,N′-[thiobis [(methylimino) carbonyloxy]] bis-, dimethyl ester	59669-26-0	U410
Thiofanox	2-Butanone, 3,3-dimethyl-1-(methylthio)-, 0-[(methylamino)carbonyl] oxime	39196-18-4	P045
Thiomethanol	Methanethiol	74-93-1	U153
Thiophanate-methyl	Carbamic acid, [1,2-phyenylenebis (iminocarbonothioyl)] bis-, dimethyl ester	23564-05-8	U409
Thiophenol	Benzenethiol	108-98-5	P014
Thiosemicarbazide	Hydrazinecarbothioamide	79-19-6	P116
Thiourea	Same	62-56-6	U219
Thiram	Thioperoxydicarbonic diamide [(H2 N)C(S)]2 S2, tetramethyl-	137-26-8	U244
Tirpate	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino) carbonyl] oxime	26419-73-8	P185
Toluene	Benzene, methyl-	108-88-3	U220
Toluenediamine	Benzenediamine, ar-methyl-	25376-45-8	U221
Toluene-2,4-diamine	1,3-Benzenediamine, 4-methyl-	95-80-7	
Toluene-2,6-diamine	1,3-Benzenediamine, 2-methyl-	823-40-5	
Toluene-3,4-diamine	1,2-Benzenediamine, 4-methyl-	496-72-0	

Toluene diisocyanate	Benzene, 1,3-diisocyanatomethyl-	26471-62-5	U223
o-Toluidine	Benzenamine, 2-methyl-	95-53-4	U328
o-Toluidine hydrochloride	Benzenamine, 2-methyl-, hydrochloride	636-21-5	U222
p-Toluidine	Benzenamine, 4-methyl-	106-49-0	U353
Toxaphene	Same	8001-35-2	P123
Triallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	2303-17-5	U389
1,2,4-Trichlorobenzene	Benzene, 1,2,4-trichloro-	120-82-1	
1,1,2-Trichloroethane	Ethane, 1,1,2-trichloro-	79-00-5	U227
Trichloroethylene	Ethene, trichloro-	79-01-6	U228
Trichloromethanethiol	Methanethiol, trichloro-	75-70-7	P118
Trichloromonofluoromethane	Methane, trichlorofluoro-	75-69-4	U121
2,4,5-Trichlorophenol	Phenol, 2,4,5-trichloro-	95-95-4	See F027
2,4,6-Trichlorophenol	Phenol, 2,4,6-trichloro-	88-06-2	See F027
2,4,5-T	Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	See F027
Trichloropropane, N.O.S. [1]		25735-29-9	
1,2,3-Trichloropropane	Propane, 1,2,3-trichloro-	96-18-4	
Triethylamine	Ethanamine, N,N-diethyl-	121-44-8	U404
O,O,O-Triethyl phosphorothioate	Phosphorothioic acid, O,O,O-triethyl ester	126-68-1	
1,3,5-Trinitrobenzene	Benzene, 1,3,5-trinitro-	99-35-4	U234
Tris(1-aziridinyl)phosphine sulfide	Aziridine, 1,1′,1″-phosphinothioylidynetris-	52-24-4	
Tris(2,3-dibromopropyl) phosphate	1-Propanol, 2,3-dibromo-, phosphate (3:1)	126-72-7	U235
Trypan blue	2,7-Naphthalenedisulfonic acid, 3,3′-[(3,3′-dimethyl[1,1′-biphenyl]-4,4′-diyl)bis(azo)]- bis[5-amino-4-hydroxy-, tetrasodium salt.	72-57-1	U236

Uracil mustard	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	66-75-1	U237
Vanadium pentoxide	Vanadium oxide V2 O5	1314-62-1	P120
Vernolate	Carbamothioic acid, dipropyl-,S-propyl ester	1929-77-7	
Vinyl chloride	Ethene, chloro-	75-01-4	U043
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations less than 0.3%	81-81-2	U248
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations greater than 0.3%	81-81-2	P001
Warfarin salts, when present at concentrations less than 0.3%			U248
Warfarin salts, when present at concentrations greater than 0.3%			P001
Zinc cyanide	Zinc cyanide Zn(CN)2	557-21-1	P121
Zinc phosphide	Zinc phosphide Zn3 P2, when present at concentrations greater than 10%	1314-84-7	P122
Zinc phosphide	Zinc phosphide Zn3 P2, when present at concentrations of 10% or less	1314-84-7	U249
Ziram	ZInc, bis(dimethylcarbamodithioato-S,S′)-, (T-4)-	137-30-4	P205

[1]The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

SECTION 45m. NR 661 Appendix IX is created to read:

Chapter 661

Appendix IX

Wastes Excluded Under ss. 660.20 and 660.22 for Wisconsin Only

Due to the nature of the information in appendix IX, a current copy of appendix IX may be found on the GPO's e-CFR website at: http://www.ecfr.gov/cgi-bin/text-idx?node=ap40.26.261_11090.ix

Facility	Address	Waste description
General Motors Corporation, Janesville Truck Assembly Plant	Janesville, Wisconsin	Wastewater treatment sludge, F019, that is generated at the General Motors Corporation (GM) Janesville Truck Assembly Plant (JTAP) at a maximum annual rate of 3,000 cubic yards per year. The sludge shall be disposed of in a lined landfill with leachate collection, which is licensed, permitted, or otherwise authorized to accept the delisted wastewater treatment sludge in accordance with 40 CFR part 258. The exclusion becomes effective as of January 24, 2006.
		1. Delisting Levels: (A) The concentrations in a TCLP extract of the waste measured in any sample may not exceed the following levels (mg/L): antimony—0.49; arsenic—0.22; cadmium—0.36; chromium—3.7; lead—5; nickel—68; selenium—1; thallium—0.21; tin—540; zinc—670; p-cresol—8.5; and formaldehyde—43. (B) The total concentrations measured in any sample may not exceed the following levels (mg/kg): chromium—5,300; mercury—7; and formaldehyde—540.
		2. Quarterly Verification Testing: To verify that the waste does not exceed the specified delisting levels, GM must collect and analyze one representative sample of JTAP's sludge on a quarterly basis.
		3. Changes in Operating Conditions: GM must notify the EPA in writing if the manufacturing process, the chemicals used in the manufacturing process, the treatment process, or the chemicals used in the treatment process at JTAP significantly change. GM must handle wastes generated at JTAP after the process change as hazardous until it has demonstrated that the waste continues to meet the delisting levels and that no new hazardous constituents listed in

		appendix VIII of part 261 have been introduced and GM has received written approval from EPA.
		4. Data Submittals: GM must submit the data obtained through verification testing at JTAP or as required by other conditions of this rule to EPA Region 5, Waste Management Branch (DW-8J), 77 W. Jackson Blvd., Chicago, IL 60604. The quarterly verification data and certification of proper disposal must be submitted annually upon the anniversary of the effective date of this exclusion. GM must compile, summarize, and maintain at JTAP records of operating conditions and analytical data for a minimum of 5 years. GM must make these records available for inspection. All data must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12).
		5. Reopener Language—(a) If, anytime after disposal of the delisted waste, GM possesses or is otherwise made aware of any data (including leachate data or groundwater monitoring data) relevant to the delisted waste at JTAP indicating that any constituent is at a level in the leachate higher than the specified delisting level, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration in paragraph (e), then GM must report such data in writing to the Regional Administrator within 10 days of first possessing or being made aware of that data.
		(b) Based on the information described in paragraph (a) and any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.
		(c) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will notify GM in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall

		include a statement of the proposed action and a statement providing GM with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. GM shall have 30 days from the date of the Regional Administrator's notice to present the information.
		(d) If after 30 days GM presents no further information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise.
		(e) Maximum Allowable Groundwater Concentrations (mg/L):; antimony—0.006; arsenic—0.005; cadmium—0.005; chromium—0.1; lead—0.015; nickel—0.750; selenium—0.050; tin—23; zinc—11; p-Cresol—0.190; and formaldehyde—0.950.
Marquette Electronics Incorporated	Milwaukee, Wisconsin	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations. This exclusion was published on April 20, 1989.
Professional Plating, Incorporated	Brillion, Wisconsin	Wastewater treatment sludges, F019, which are generated at the Professional Plating, Incorporated (PPI) Brillion facility at a maximum annual rate of 140 cubic yards per year. The sludge must be disposed of in a Subtitle D landfill which is licensed, permitted, or otherwise authorized by a state to accept the delisted wastewater treatment sludge. The exclusion becomes effective as of March 1, 2010.
		1. Delisting Levels: The constituent concentrations measured in a leachate extract may not exceed the following levels (mg/L): chromium—5, cobalt—10.4; manganese—815; and nickel—638.
		2. Annual Verification Testing: To verify that the waste does not exceed the specified delisting levels, PPI must collect and analyze, annually, one waste sample for the constituents in Section 1. using methods with appropriate detection levels

		and elements of quality control. SW-846 Method 1311 must be used for generation of the leachate extract used in the testing of the delisting levels if oil and grease comprise less than 1% of the waste. SW-846 Method 1330A must be used for generation of the leaching extract if oil and grease comprise 1% or more of the waste. SW-846 Method 9071B must be used for determination of oil and grease. SW-846 Methods 1311, 1330A, and 9071B are incorporated by reference in 40 CFR 260.11.
		3. Changes in Operating Conditions: PPI must notify the EPA in writing if the manufacturing process, the chemicals used in the manufacturing process, the treatment process, or the chemicals used in the treatment process significantly change. PPI must handle wastes generated after the process change as hazardous until it has demonstrated that the wastes continue to meet the maximum allowable concentrations in Section 1. and that no new hazardous constituents listed in appendix VIII of part 261 have been introduced and it has received written approval from EPA.
		4. Reopener Language—(a) If, anytime after disposal of the delisted waste, PPI possesses or is otherwise made aware of any data (including leachate data or groundwater monitoring data) relevant to the delisted waste indicating that any constituent is at a concentration in the waste or waste leachate higher than the maximum allowable concentrations in Section 1. above or is in the groundwater at a concentration higher than the maximum allowable groundwater concentrations in Paragraph (e), then PPI must report such data, in writing, to the Regional Administrator within 10 days of first possessing or being made aware of that data.
		(b) Based on the information described in paragraph (a) and any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.

		(c) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will notify the facility in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing PPI with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. PPI shall have 30 days from the date of the Regional Administrator's notice to present the information.
		(d) If after 30 days PPI presents no further information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise.
		(e) Maximum allowable groundwater concentrations (mg/L) are as follows: chromium—0.1; cobalt—0.0113; manganese—0.9; and nickel—0.75.
ERCO Worldwide (USA) Inc. (formerly Vulcan Materials Company)	Port Edwards, Wisconsin	Brine purification muds (EPA Hazardous Waste No. K071) generated from the mercury cell process in chlorine production, where separately purified brine is not used after November 17, 1986. To assure that mercury levels in this waste are maintained at acceptable levels, the following conditions apply to this exclusion: Each batch of treated brine clarifier muds and saturator insolubles must be tested (by the extraction procedure) prior to disposal and the leachate concentration of mercury must be less than or equal to 0.0129 ppm. If the waste does not meet this requirement, then it must be re-treated or disposed of as hazardous. This exclusion does not apply to wastes for which either of these conditions is not satisfied.

SECTION 46. NR 662 is repealed and recreated to read:

Subchapter A — General

NR 662.001 Definitions. In this chapter:

(1) "Condition for exemption" means any requirement specified in ss. NR 662.014, 662.015, 662.016, 662.017, or 662.070 or subch. K or L that states an event, action, or standard that shall occur or be met in order to obtain an exemption from any applicable requirement specified in chs. NR 664 to 668 and 670, or from any requirement for notification under s. NR 660.07.

Note: The condition for exemption requirements are associated with management standards for containers and tanks, accumulation time limits for hazardous waste, preparedness and prevention, and personnel training.

(2) "Independent requirement" means a requirement under ch. NR 662 that states an event, action, or standard that shall occur or be met and that applies without relation to, or irrespective of, the purpose of obtaining a conditional exemption from storage facility license, interim status, and operating requirements under s. NR 662.014, 662.015, 662.016, or 662.017, or subch. K or L.

Note: The independent requirements are associated with generator category determination, waste determinations, manifesting, and most recordkeeping.

NR 662.010 Purpose, scope, and applicability. (1) The regulations in this chapter establish standards for generators of hazardous waste.

(a) A person who generates a hazardous waste as defined under ch. NR 661 is subject to all of the following applicable independent requirements in the subchapters and sections:

1. 'Independent requirements of a very small quantity generator.'

a. Section NR 662.011 (1) to (4) Hazardous waste determination and recordkeeping.

b. Section NR 662.013 Generator category determination.

2. 'Independent requirements of a small quantity generator.'

a. Section NR 662.011 Hazardous waste determination and recordkeeping.

b. Section NR 662.013 Generator category determination.

c. Section NR 662.018 EPA identification numbers and re-notification for small quantity generators and large quantity generators.

d. Chapter NR 662 subch. B—Manifest requirements applicable to small and large quantity generators.

e. Chapter NR 662 subch. C—Pre-transport requirements applicable to small and large quantity generators.

f. Section NR 662.040 Recordkeeping.

g. Section NR 662.044 Recordkeeping for small quantity generators.

h. Chapter NR 662 subch. H—Transboundary movements of hazardous waste for recovery or disposal.

3. 'Independent requirements of a large quantity generator.'

a. Section NR 662.011 Hazardous waste determination and recordkeeping.

b. Section NR 662.013 Generator category determination.

c. Section NR 662.018 EPA identification numbers and re-notification for small quantity generators and large quantity generators.

d. Chapter NR 662 subch. B—Manifest requirements applicable to small and large quantity generators.

e. Chapter NR 662 subch. C—Pre-transport requirements applicable to small and large quantity generators.

f. Chapter NR 662 subch. D—Recordkeeping and reporting applicable to small and large quantity generators, except s NR 662.044.

g. Chapter NR 662 subch. H—Transboundary movements of hazardous waste for recovery or disposal.

(b) A generator that accumulates hazardous waste on-site is a person that stores hazardous waste. Such generator is subject to the applicable requirements of chs. NR 664 to 667 and 670, and s. NR 660.07, unless it is any of the following:

1. A very small quantity generator that meets the conditions for exemption under s NR 662.014.

2. A small quantity generator that meets the conditions for exemption under ss. NR 662.015 and 662.016.

3. A large quantity generator that meets the conditions for exemption under ss. NR 662.015 and 662.017.

(c) A generator shall not transport, offer its hazardous waste for transport, or otherwise cause its hazardous waste to be sent to a facility that is not a designated facility, as defined in s. NR 660.10 (21), or not otherwise authorized to receive the generator's hazardous waste.

(2) When determining a generator category, a generator shall use s. NR 662.013 to determine which provisions of this chapter are applicable to the generator based on the quantity of hazardous waste generated per calendar month.

(4) Any person who exports or imports hazardous wastes shall comply with s. NR 662.018 and subch. H.

(5) Any person who imports hazardous waste into the United States shall comply with the standards applicable to generators established in this chapter.

(6) A farmer who generates waste pesticides that are hazardous waste and who complies with all of the requirements under s. NR 662.070 is not required to comply with other standards in this chapter or chs. NR 670, 664, 665, 667, or 668 with respect to such pesticides.

(7) A person who generates a hazardous waste as defined under ch. NR 661 is subject to all of the following:

(a) A generator's violation of an independent requirement is subject to penalty and injunctive relief under ch. 291, Stats., and 42 USC 6928.

(b) A generator's noncompliance with a condition for exemption in this chapter is not subject to penalty or injunctive relief under ch. 291, Stats., or 42 USC 6928 as a violation of a ch. NR 662 condition for exemption. Noncompliance by any generator with an applicable condition for exemption from storage license and operations requirements means that the facility is a storage facility operating without an exemption from the license, interim status, and operations requirements under chs. NR 664 to 667 and 670, and the notification requirements under s. NR 660.07. Without an exemption, any violations of such storage requirements are subject to penalty and injunctive relief under ch. 291, Stats., or 42 USC 6928.

(8) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility shall comply with the generator standards established in this chapter.

(9) A person responding to an explosives or munitions emergency in accordance with ss. NR 664.0001 (7) (h) 1. d. or 4. or 665.0001 (3) (k) 1. d. or 4., or s. 670.001 (3) (c) 1. d or 3. is not required to comply with the standards of this chapter.

(12) In this subsection, “eligible academic entity” has the meaning given in s. NR 662.200 (3) and “laboratory” has the meaning given in s. NR 662.200 (5). A laboratory owned by an eligible academic entity that chooses to be subject to the requirements of subch. K is not subject to any of the following:

(a) The independent requirements under s. NR 662.011 or the regulations specified in s. NR 662.015 for large quantity generators and small quantity generators, except as provided in subch. K.

(b) The conditions under s. NR 662.014, for very small quantity generators, except as provided in subch. K.

Note: The provisions specified in s. NR 662.015 are applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions specified in s. NR 662.015 only apply to owners or operators who are shipping hazardous waste generated at that facility.

Note: A generator that treats, stores, or disposes of hazardous waste on-site is required to comply with the applicable standards and license requirements under chs. NR 664, 665, 666, 668, and 670.

(13) A reverse distributor as defined in s. NR 666.500 is subject to ch. NR 666 subch. P for the management of hazardous waste pharmaceuticals in lieu of this chapter.

(14) Each healthcare facility as defined in s. NR 666.500 shall determine whether it is subject to ch. NR 666 subch. P for the management of hazardous waste pharmaceuticals, based on the total hazardous waste it generates per calendar month, including both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste. A healthcare facility that generates more than 100 kg of hazardous waste per calendar month, or more than 1 kg of acute hazardous waste per calendar month, or more than 100 kg per calendar month of any residue or contaminated soil, water, or other debris, resulting from the clean-up of a spill, into or on any land or water, of any acute hazardous wastes listed in s. NR 661.0031 or s. NR 661.0033 (5), is subject to ch. NR 666 subch. P for the management of hazardous waste pharmaceuticals in lieu of this chapter. A healthcare facility that is a very small quantity generator when counting all of its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, remains subject to s. NR 662.014 and is not subject to ch. NR 666 subch. P, except for ss. NR 666.505 and 666.507 and the optional provisions under s. NR 666.504.

NR 662.011 Hazardous waste determination and recordkeeping. A person who generates a solid waste, as defined in s. NR 661.0002, shall make an accurate determination as to

whether that waste is a hazardous waste in order to ensure wastes are properly managed according to chs. NR 660 to 679. A hazardous waste determination is made using all of the following steps:

(1) The hazardous waste determination for each solid waste shall be made at the point of waste generation, before any dilution, mixing, or other alteration of the waste occurs, and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure to the environment or other factors that may change the properties of the waste such that the RCRA classification of the waste may change.

(2) A person shall determine whether the solid waste is excluded from regulation under s. NR 661.0004.

(3) If the waste is not excluded under s. NR 661.0004, the person shall use knowledge of the waste to determine whether the waste meets any of the listing descriptions under subch. D of ch. NR 661. Acceptable knowledge that may be used in making an accurate determination as to whether the waste is listed may include waste origin, composition, the process producing the waste, feedstock, and other reliable and relevant information. If the waste is listed, the person may file a delisting petition under 40 CFR 260.20 and 260.22 to demonstrate to the EPA administrator that the waste from this particular site or operation is not a hazardous waste. The department shall recognize an EPA granted delisting unless the department clearly establishes that a delisting would threaten human health or the environment.

(4) The person shall also determine whether the waste exhibits one or more hazardous characteristics as identified in subch. C of ch. NR 661 by following all of the following procedures.

(a) The person shall apply knowledge of the hazard characteristic of the waste in light of the materials or the processes used to generate the waste. Acceptable knowledge may include any of the following: process knowledge, which describes information about chemical feedstocks and other inputs to the production process; knowledge of products, by-products, and intermediates produced by the manufacturing process; chemical or physical characterization of wastes; information on the chemical and physical properties of the chemicals used or produced by the process or otherwise contained in the waste; testing that illustrates the properties of the waste; or other reliable and relevant information about the properties of the waste or its constituents. A test other than a test method set forth in subch. C of ch. NR 661, or an equivalent

test method approved by the department under s. NR 660.21, may be used as evidence of a person's knowledge to determine whether a solid waste exhibits a characteristic of hazardous waste. However, such tests do not, by themselves, provide definitive results. A person testing the waste shall obtain a representative sample of the waste for the testing, as defined in s. NR 660.10 (101).

(b) When available knowledge is inadequate to make an accurate determination, the person shall test the solid waste according to the applicable methods set forth in subch. C of ch. NR 661 or according to an equivalent method approved by the department under s. NR 660.21 and in accordance with all of the following:

1. A persons testing the waste shall obtain a representative sample of the waste for the testing, as defined in s. NR 660.10 (101).

2. When a test method is specified in subch. C of ch. NR 661, the results of the regulatory test, when properly performed, are definitive for determining the regulatory status of the waste.

(5) If the waste is determined to be hazardous, the generator shall refer to chs. NR 661, 664, 665, 666, 667, 668, and 673 for other possible exclusions or restrictions pertaining to management of the specific waste.

(6) A small or large quantity generator shall maintain records supporting its hazardous waste determinations, including records that identify whether a solid waste is a hazardous waste, as defined in s. NR 661.0003. Records shall be maintained for at least 3 years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal. These records shall comprise the generator's knowledge of the waste and support the generator's determination, as described in pars. (3) and (4). The records shall include the following types of information: the results of any tests, sampling, waste analyses, or other determinations made in accordance with this section; records documenting the tests, sampling, and analytical methods used to demonstrate the validity and relevance of such tests; records consulted in order to determine the process by which the waste was generated, the composition of the waste, and the properties of the waste; and records which explain the knowledge basis for the generator's determination, as described in sub. (4) (a). The periods of record retention referred in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the department.

(7) If the waste is determined to be hazardous, small quantity generators and large quantity generators shall identify all applicable EPA hazardous waste numbers (EPA hazardous waste codes) in subchs. C and D of ch. NR 661. Prior to shipping the waste off-site, the generator also shall mark its containers with all applicable EPA hazardous waste numbers, or EPA hazardous waste codes, as specified in s. NR 662.032.

NR 662.013 Generator category determination. A generator shall determine its generator category. A generator's category is based on the amount of hazardous waste generated each month and may change from month to month. This section sets forth procedures to determine whether a generator is a "very small quantity generator," a "small quantity generator," or a "large quantity generator" for a particular month, as each of those terms are defined in s. NR 660.10, by applying any of the following, as applicable:

(1) GENERATORS OF EITHER ACUTE HAZARDOUS WASTE OR NON-ACUTE HAZARDOUS WASTE. A generator who either generates acute hazardous waste or non-acute hazardous waste in a calendar month shall determine its generator category for that month by doing all of the following:

(a) Counting the total amount of hazardous waste generated in the calendar month.

(b) Subtracting from the total any amounts of waste exempt from counting as described in subs. (3) and (4).

(c) Determining the resulting generator category for the hazardous waste generated using Table 1.

(2) GENERATORS OF BOTH ACUTE AND NON-ACUTE HAZARDOUS WASTES. A generator who generates both acute hazardous waste and non-acute hazardous waste in the same calendar month shall determine its generator category for that month by doing all of the following:

(a) Counting separately the total amount of acute hazardous waste and the total amount of non-acute hazardous waste generated in the calendar month.

(b) Subtracting from each total any amounts of waste exempt from counting as described in subs. (3) and (4).

(c) Determining separately the resulting generator categories for the quantities of acute and non-acute hazardous waste generated using Table 1.

(d) Comparing the resulting generator categories from par. (c) and applying the more stringent generator category to the accumulation and management of both non-acute hazardous waste and acute hazardous waste generated for that month.

TABLE 1

GENERATOR CATEGORIES BASED ON QUANTITY OF WASTE GENERATED IN A CALENDAR MONTH

Quantity of acute hazardous waste generated in a calendar month	Quantity of non-acute hazardous waste generated in a calendar month	Quantity of residues from a cleanup of acute hazardous waste generated in a calendar month	Generator category
> 1 kg	Any amount	Any amount	Large quantity generator.
Any amount	≥ 1,000 kg	Any amount	Large quantity generator.
Any amount	Any amount	> 100 kg	Large quantity generator.
≤ 1 kg	> 100 kg and < 1,000 kg	≤ 100 kg	Small quantity generator.
≤ 1 kg	≤ 100 kg	≤ 100 kg	Very small quantity generator.

(3) MONTHLY QUANTITY-BASED DETERMINATIONS. When making the monthly quantity-based determinations required under this chapter, the generator shall include all hazardous waste that it generates, except hazardous waste that is any of the following:

(a) Is exempt from regulation under s. NR 661.0004 (3) to (6), 661.0006 (1) (c), 661.0007 (1) (a), or 661.0008.

(b) Is managed immediately upon generation in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in s. NR 660.10.

(c) Is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under s. NR 661.0006 (3) (b).

(d) Is used oil that is managed under the requirements specified in s. NR 661.0006 (1) (d) and ch. NR 679.

(e) Is spent lead-acid batteries managed under the requirements specified in subch. G of ch. NR 666.

(f) Is universal waste managed under s. NR 661.0009 and ch. NR 673.

(g) Is a hazardous waste that is an unused commercial chemical product listed in subch. D of ch. NR 661 or exhibiting one or more characteristics in subch. C of ch. NR 661 that is generated solely as a result of a laboratory clean-out under s. NR 662.213 conducted at an eligible academic entity, as defined in s. NR 662.200 (3).

(h) Is managed as part of an episodic event in compliance with the conditions under subch. L.

(i) Is a hazardous waste pharmaceutical, as defined in s. NR 666.500, that is subject to or managed in accordance with ch. NR 666 subch. P or is a hazardous waste pharmaceutical that is also a drug enforcement administration controlled substance and is conditionally exempt under s. NR 666.506.

(4) DETERMINING THE QUANTITY OF HAZARDOUS WASTE GENERATED IN A CALENDAR MONTH. In determining the quantity of hazardous waste generated in a calendar month, a generator need not include any of the following:

(a) Hazardous waste when it is removed from on-site accumulation, so long as the hazardous waste was previously counted once.

(b) Hazardous waste generated by on-site treatment, including reclamation, of the generator's hazardous waste, so long as the hazardous waste that is treated was previously counted once.

(c) Hazardous waste spent materials that are generated, reclaimed, and subsequently reused on-site, so long as the spent materials were previously counted once.

(5) GENERATOR CATEGORY. Based on the generator category as determined under this section, the generator shall meet the applicable independent requirements listed in s. NR 662.010. A generator's category also determines which of the provisions specified in s. NR 662.014, 662.015, 662.016, or 662.017 shall be met to obtain an exemption from the storage facility license, interim status, and operating requirements when accumulating hazardous waste.

(6) MIXING HAZARDOUS WASTES WITH SOLID WASTES.

(a) *Very small quantity generator wastes.*

1. Hazardous wastes generated by a very small quantity generator may, as part of a treatment process, be mixed with solid wastes. A very small quantity generator may, as part of a treatment process, mix a portion or all of its hazardous waste with solid waste and remain subject to s. NR 662.014 even though the resultant mixture exceeds the quantity limits identified in the definition of very small quantity generator under s. NR 660.10 (139), unless the mixture exhibits one or more of the characteristics of hazardous waste identified in subch. C of ch. 661. Legitimate treatment processes include the following examples: stabilization and solidification, polymerization, electrochemical oxidation of organic chemicals, elementary neutralization, and precipitating heavy metals out of solution.

Note: The mixing of hazardous waste by a very small quantity generator into a disposal container, such as a roll off box containing solid wastes, is not considered a treatment process.

2. If the resulting mixture exhibits a characteristic of hazardous waste, this resultant mixture is a newly generated hazardous waste. The very small quantity generator shall count both the resultant mixture amount plus the other hazardous waste generated in the calendar month to determine whether the total quantity exceeds the very small quantity generator calendar month quantity limits identified in the definition of generator categories under s. NR 660.10. If so, to remain exempt from the permitting, interim status, and operating standards, the very small quantity generator shall meet the conditions for exemption applicable to either a small quantity generator or a large quantity generator. The very small quantity generator shall also comply with the applicable independent requirements for either a small quantity generator or a large quantity generator.

3. If a very small quantity generator's wastes are mixed with used oil, the mixture is subject to ch. NR 679. Any material produced from such a mixture by processing, blending, or other treatment is also regulated under ch. NR 679.

(b) *Small quantity generator and large quantity generator wastes.*

1. Hazardous wastes generated by a small quantity generator or large quantity generator may be mixed with solid waste. These mixtures are subject to the following: the mixture rule specified in s. NR 661.0003 (1) (b) 4., (2) (b) and (c), and (7) (b) 1.; the prohibition of dilution rule specified in s. NR 668.03 (1); the land disposal restriction requirements specified in s. NR 668.40 if a characteristic hazardous waste is mixed with a solid waste so that it no longer exhibits

the hazardous characteristic; and the hazardous waste determination requirement specified in s. NR 662.011.

2. If the resulting mixture is found to be a hazardous waste, this resultant mixture is a newly generated hazardous waste. A small quantity generator shall count both the resultant mixture amount plus the other hazardous waste generated in the calendar month to determine whether the total quantity exceeds the small quantity generator calendar monthly quantity limits identified in the definition of generator categories under s. NR 660.10. If so, to remain exempt from the permitting, interim status, and operating standards, the small quantity generator shall meet the conditions for exemption applicable to a large quantity generator. The small quantity generator shall also comply with the applicable independent requirements for a large quantity generator.

NR 662.014 Conditions for exemption for a very small quantity generator. (1) Provided that the very small quantity generator meets all of the conditions for exemption listed in this section, hazardous waste generated by the very small quantity generator is not subject to the requirements under chs. NR 662 (except for the requirements under ss. NR 662.010 to 662.014) to 668, and 670, and the notification requirements under s. NR 660.07, and the very small quantity generator may accumulate hazardous waste on-site without complying with such requirements. The conditions for exemption are all of the following:

(a) In a calendar month the very small quantity generator generates less than or equal to the amounts specified for a very small quantity generator in s. NR 660.10 (139).

(b) The very small quantity generator complies with s. NR 662.011 (1) to (4).

Note: It is recommended that a very small quantity generator follow the recordkeeping requirements specified in s. NR 662.011 (6) to document its waste determinations.

(c) If the very small quantity generator accumulates at any time greater than 1 kilogram of acute hazardous waste or 100 kilograms of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in s. NR 661.0031 or 661.0033 (5), all quantities of that acute hazardous waste are subject to all of the following additional conditions for exemption:

1. The waste is held on-site for no more than 90 days beginning on the date when the accumulated wastes exceed the amounts provided in s. NR 662.014 (1) (c).

2. The conditions for exemption specified in s. NR 662.017 (1) to (7) are met.

(d) If the very small quantity generator accumulates at any time 1,000 kilograms or greater of non-acute hazardous waste, all quantities of that hazardous waste are subject to all of the following additional conditions for exemption:

1. The waste is held on-site for no more than 180 days, or 270 days if the generator meets the requirements specified in NR 662.016 (3), beginning on the date when the accumulated waste exceeds the amounts provided in s. NR 662.014 (1) (c).

2. The quantity of waste accumulated on-site never exceeds 6,000 kilograms.

3. The conditions for exemption specified in s. NR 662.016 (2) (b) to (6) are met.

(e) A very small quantity generator that accumulates hazardous waste in amounts less than or equal to the limits specified in pars. (c) and (d) shall either treat or dispose of its hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility. If the off-site treatment, storage, or disposal facility is located outside of Wisconsin, the facility shall be one of the following:

1. Permitted under 40 CFR part 270.

2. In interim status under 40 CFR parts 265 and 270.

3. Authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 CFR part 271.

4. Permitted, licensed, or registered by a state to manage municipal solid waste and, if managed in a municipal solid waste landfill, subject 40 CFR part 258.

5. Permitted, licensed, or registered by a state to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit, subject to the requirements in 40 CFR parts 257.5 to 257.30.

6. A facility that does any of the following:

a. Beneficially uses or reuses, or legitimately recycles or reclaims, its waste.

b. Treats its waste prior to beneficial use or reuse or legitimate recycling or reclamation.

7. For universal waste managed under 40 CFR part 273, a universal waste handler or destination facility subject to the requirements of 40 CFR part 273.

8. A large quantity generator under the control of the same person as the very small quantity generator, provided all the following conditions are met:

a. "Control," for the purposes of this section, means the power to direct the policies of the generator, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate generator facilities on behalf of a different person as defined in s. NR 660.10 (90) shall not be deemed to "control" such generators.

b. The very small quantity generator and the large quantity generator are under the control of the same person as defined in s. 40 CFR 260.10.

c. The very small quantity generator marks its container of hazardous waste with the words "Hazardous Waste" and an indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association 704 label, incorporated into s. SPS 314.001 (1) (a).

9. A reverse distributor, as defined in s. NR 666.500, if the hazardous waste pharmaceutical is a potentially creditable hazardous waste pharmaceutical generated by a healthcare facility as defined in s. NR 666.500.

10. A healthcare facility as defined in s. NR 666.500 that meets the conditions in ss. NR 666.502 (a) and s. 666.503 (2), as applicable, to accept non-creditable hazardous waste pharmaceuticals and potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator.

11. For airbag waste, an airbag waste collection facility or a designated facility subject to the requirements of 40 CFR 261.4 (j).

(f) A very small quantity generator that accumulates hazardous waste in amounts less than or equal to the limits specified in pars. (c) and (d) shall either treat or dispose of its hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility. If the off-site treatment, storage, or disposal facility is located in Wisconsin, the facility shall be all of the following:

1. Licensed under ch. NR 670.

2. In interim status under chs. NR 665 and 670.

3. A licensed solid waste disposal facility that has been approved by the department to accept hazardous waste from very small quantity generators.

4. A facility that does any of the following:

a. Beneficially uses or reuses or legitimately recycles or reclaims its waste.

b. Treats its waste prior to beneficial use or reuse or legitimate recycling or reclamation.

5. For universal waste managed under ch. NR 673, a universal waste handler or destination facility subject to the requirements of ch. NR 673.

6. A large quantity generator under the control of the same person as the very small quantity generator, provided all of the following conditions are met:

a. The very small quantity generator and the large quantity generator are under the control of the same person as defined in s. NR 660.10 (90).

b. The very small quantity generator marks its container of hazardous waste with the words "Hazardous Waste" and an indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association 704 label, incorporated into s. SPS 314.001 (1) (a).

11. For airbag waste, an airbag waste collection facility or a designated facility subject to the requirements specified in s. NR 661.0004 (10).

(2) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids, in any landfill is prohibited, whether or not sorbents have been added.

(3) A very small quantity generator experiencing an episodic event, as defined in s. NR 662.231 (1), may generate and accumulate hazardous waste in accordance with subch. L in lieu of complying with ss. NR 662.015, 662.016, and 662.017.

(4) If waste is placed in containers, the very small quantity generator shall comply with the requirements specified in ss. NR 665.0171, 665.0172, 665.0173 (1), 665.0177 (1) and mark the containers with the words "Hazardous Waste."

(5) If waste is placed in tanks, the very small quantity generator shall meet all of the following requirements:

(a) All tanks shall be leak proof and in good overall condition.

(b) All tanks shall be made or lined with materials that will not react with or be incompatible with the hazardous waste being stored.

(c) Incompatible wastes and materials may not be placed in the same tank.

(d) While being accumulated on-site, each tank shall be labeled or marked clearly with the words, "Hazardous Waste."

(e) If the tank begins to leak, the contents shall be removed and placed in leak proof containers or tanks immediately. All spilled material shall be cleaned up and properly managed.

(6) A very small quantity generator is not required to use a manifest. A very small quantity generator who chooses to use a manifest shall comply with all of the following:

(a) The notification requirements specified in s. NR 660.07.

(b) The manifest requirements specified in ss. NR 662.020 to 662.025.

(c) The exception reporting requirement specified in s. NR 662.042 (2).

(d) The manifest recordkeeping requirement specified in s. NR 662.040.

Note: It is recommended that a very small quantity generator maintain records of all hazardous waste shipments for 3 years from the date the hazardous waste was shipped off-site.

NR 662.015 Satellite accumulation area regulations for small and large quantity generators. (1) A generator may accumulate as much as 55 gallons of non-acute hazardous waste and either one quart of liquid acute hazardous waste listed in s. NR 661.0031 or 661.0033 (5) or 1 kg of solid acute hazardous waste listed in s. NR 661.0031 or 661.0033 (5) in containers at or near any point of generation where wastes initially accumulate that are under the control of the operator of the process generating the waste, without a license or interim status and without complying with the requirements under chs. NR 664 to 667 and 670, provided that all of the conditions for exemption in this section are met. A generator may comply with the conditions for exemption in this section instead of complying with the conditions for exemption under s. NR 662.016 (2) or 662.017 (1), except as required in s. NR 662.015 (1) (g) and (h). The conditions for exemption for satellite accumulation are all of the following:

(a) If a container holding hazardous waste is not in good condition, or if it begins to leak, the generator shall immediately transfer the hazardous waste to a container that is in good condition and does not leak, or immediately transfer and manage the waste in a central accumulation area operated as specified in s. NR 662.016 (2) or 662.017 (1).

(b) The generator shall use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be accumulated, so that the ability of the container to contain the waste is not impaired.

(c) Special standards for incompatible wastes include all of the following:

1. The generator shall not place incompatible wastes, or incompatible wastes and materials, in the same container, unless it complies with the requirements specified in s. NR 665.0017 (2).

2. The generator shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material, unless it complies with the requirements specified in s. NR 665.0017 (2).

3. A container holding a hazardous waste that is incompatible with any waste or other materials accumulated nearby in other containers shall be separated from the other materials or protected from them by any practical means.

Note: See appendix V of ch. NR 665 for examples of incompatible wastes.

(d) A container holding hazardous waste shall be closed at all times during accumulation, except in any of the following cases:

1. When adding, removing, or consolidating waste.

2. When temporary venting of a container is necessary for the proper operation of equipment or to prevent dangerous situations, such as build-up of extreme pressure.

(e) A generator shall mark or label its container with all of the following:

1. The words “Hazardous Waste.”

2. An indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical

hazard label consistent with the National Fire Protection Association 704 label, incorporated into s. SPS 314.001 (1) (a).

(f) A generator that accumulates either acute hazardous waste listed in s. NR 661.0031 or 661.0033 (5) or non-acute hazardous waste in excess of the amounts listed in sub. (1) at or near any point of generation shall comply with either subd. 1. or 2., and subd. 3.

1. Within 3 consecutive calendar days comply with the applicable central accumulation area regulations specified in s NR 662.016 (2) or s. NR 662.017 (1).

2. Remove the excess from the satellite accumulation area within 3 consecutive calendar days to one of the following:

a. A central accumulation area operated in accordance with the applicable regulations specified in s. NR 662.016 (2) or s. NR 662.017 (1).

b. An on-site interim status or permitted treatment, storage, or disposal facility.

c. An off-site designated facility.

3. During the 3 consecutive calendar day period the generator shall continue to comply with sub. (1) (a) to (f). The generator shall mark or label the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

(g) All satellite accumulation areas operated by a small quantity generator shall meet the preparedness and prevention regulations specified in s. NR 662.016 (2) (h) and emergency procedures specified in s. NR 662.016 (2) (i).

(h) All satellite accumulation areas operated by a large quantity generator shall meet the preparedness, prevention, and emergency procedures specified in subch. M.

NR 662.016 Conditions for exemption for a small quantity generator that accumulates hazardous waste. A small quantity generator may accumulate hazardous waste on-site without a license or interim status, and without complying with the requirements of chs. NR 664 to 667 and 670, or the notification requirements under s. NR 660.07, provided that all of the following conditions for exemption are met:

(1) GENERATION. The generator generates in a calendar month no more than the amounts specified in the definition of "small quantity generator" in s. NR 660.10.

(2) ACCUMULATION. The generator accumulates hazardous waste on-site for no more than 180 days, unless in compliance with the conditions for exemption for longer

accumulation specified in subs. (4) and (5). All of the following accumulation conditions also apply:

(a) *Accumulation limit.* The quantity of hazardous waste accumulated on-site never exceeds 6,000 kilograms.

(b) *Accumulation of hazardous waste in containers*. 1. 'Condition of containers.' If a container holding hazardous waste is not in good condition, or if it begins to leak, the small quantity generator shall immediately transfer the hazardous waste to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this section.

2. 'Compatibility of waste with container.' The small quantity generator shall use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be accumulated, so that the ability of the container to contain the waste is not impaired.

3. 'Management of containers.' a. A container holding hazardous waste shall always be closed during accumulation, except when it is necessary to add or remove waste.

b. A container holding hazardous waste shall not be opened, handled, or accumulated in a manner that may rupture the container or cause it to leak.

4. 'Inspections.' At least weekly, the small quantity generator shall inspect central accumulation areas. The small quantity generator shall look for leaking containers and for deterioration of containers caused by corrosion or other factors.

5. 'Special conditions for accumulation of incompatible wastes.' a. A generator shall not place incompatible wastes, or incompatible wastes and materials, in the same container, unless in complies with the requirements specified in s. NR 665.0017 (2).

b. A generator shall not shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material, unless it complies with the requirements specified in s. NR 665.0017 (2).

c. A container accumulating hazardous waste that is incompatible with any waste or other materials accumulated or stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

Note: See appendix V of ch. NR 665 for examples of incompatible wastes.

(c) *Accumulation of hazardous waste in tanks.*

2. A small quantity generator of hazardous waste shall comply with all of the following general operating conditions:

a. Treatment or accumulation of hazardous waste in tanks shall comply with s. NR 665.0017 (2).

b. Hazardous wastes or treatment reagents shall not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life.

c. Uncovered tanks shall be operated to ensure at least 60 centimeters or 2 feet of freeboard, unless the tank is equipped with a containment structure, a drainage control system, or a diversion structure with a capacity that equals or exceeds the volume of the top 60 centimeters or 2 feet of the tank.

Note: A ditch or trench is an example of a containment structure. A standby tank is an example of a diversion structure.

d. If hazardous waste is continuously fed into a tank, the tank shall be equipped with a means to stop this inflow, such as, a waste feed cutoff system or a bypass system to a stand-by tank.

3. Except as noted in par. (c) 4., a small quantity generator that accumulates hazardous waste in tanks shall inspect all of the following, where present:

a. Discharge control equipment at least once each operating day, to ensure that it is in good working order. Discharge control equipment includes waste feed cutoff systems, bypass systems, and drainage systems.

b. Data gathered from monitoring equipment at least once each operating day to ensure that the tank is being operated according to its design. Monitoring equipment includes pressure and temperature gauges.

c. The level of waste in the tank at least once each operating day to ensure compliance with par. (c) 2. c.

d. The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams.

e. The construction materials of, and the area immediately surrounding, discharge confinement structures at least weekly to detect erosion or obvious signs of leakage. The

generator shall remedy any deterioration or malfunction of equipment or structures, revealed during an inspection, on a schedule that ensures the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately. Note that signs of leakage can include wet spots or dead vegetation.

4. A small quantity generator accumulating hazardous waste in tanks or tank systems that have full secondary containment and that either use leak detection equipment to alert personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, shall inspect at least weekly, where applicable, the areas identified in par. (c) 3. a. to e. Use of the alternate inspection schedule shall be documented in the generator's operating record. This documentation shall include a description of the established workplace practices at the generator.

6. A small quantity generator accumulating hazardous waste in tanks shall, upon closure of the facility, remove all hazardous waste from tanks, discharge control equipment, and discharge confinement structures. At closure, as throughout the operating period, unless the small quantity generator can demonstrate, in accordance with s. NR 661.0003 (3) or (4), that any solid waste removed from its tank is not a hazardous waste, then it shall manage such waste in accordance with all applicable provisions under chs. NR 662, 663, 665, and 668.

7. A small quantity generator shall comply with all of the following special conditions for accumulation of ignitable or reactive waste.

a. Ignitable or reactive waste shall not be placed in a tank unless the waste is treated, rendered, or mixed before or immediately after placement in a tank so that the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under s.NR 661.0021 or 661.0023, and the generator complies with s. NR 665.0017 (2), or the waste is accumulated or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react, or the tank is used solely for emergencies.

b. A small quantity generator that treats or accumulates ignitable or reactive waste in covered tanks shall comply with the buffer zone requirements for tanks contained in Tables 2-1 to 2-6 of the 1977 or 1981 National Fire Protection Association's “Flammable and Combustible Liquids Code,” incorporated by reference in s. NR 660.11.

c. A small quantity generator shall comply with the following special conditions for incompatible wastes. Incompatible wastes, or incompatible wastes and materials, may not be

placed in the same tank, unless the generator complies with s. NR 665.0017 (2). Hazardous waste may not be placed in an unwashed tank that previously held an incompatible waste or material, unless the generator complies with s. NR 665.0017 (2).

Note: See appendix V of ch. NR 665 for examples of incompatible wastes.

(d) *Accumulation of hazardous waste on drip pads.* If the waste is placed on drip pads, the small quantity generator shall comply with all of the following:

1. Subch. W of ch. NR 665, except s. NR 665.0445 (3).

2. The small quantity generator shall remove all wastes from the drip pad at least once every 90 days. Any hazardous wastes that are removed from the drip pad are then subject to the 180-day accumulation limit specified in par. (b) and s. NR 662.015 if hazardous wastes are being managed in satellite accumulation areas prior to being moved to the central accumulation area.

3. The small quantity generator shall maintain on-site at the facility the following records readily available for inspection:

a. A written description of procedures that are followed to ensure all wastes are removed from the drip pad and associated collection system at least once every 90 days.

b. Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal.

(e) *Accumulation of hazardous waste in containment buildings.* If the waste is placed in containment buildings, the small quantity generator shall comply with ch. NR 665 subch. DD. The generator shall label its containment buildings with the words “Hazardous Waste” in a conspicuous place easily visible to employees, visitors, emergency responders, waste handlers, or other persons on-site and provide an indication of the hazards of the contents in a conspicuous place. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as, ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association, incorporated into s. SPS 314.001 (1) (a). The generator shall also maintain all of the following:

1. The professional engineer certification that the building complies with the design standards specified in s.NR 665.1101. This certification shall be in the generator's files prior to operation of the unit.

2. One of the following records, by use of inventory logs, monitoring equipment, or any other effective means, shall be maintained and readily available for inspection:

a. A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that the generator is consistent with maintaining the 90 day limit, and documentation that the procedures are complied with.

b. Documentation that the unit is emptied at least once every 90 days.

(f) *Labeling and marking of containers and tanks.* 1. 'Containers.' A small quantity generator shall mark or label each of its containers with all of the following:

a. The words "Hazardous Waste."

b. An indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association, incorporated into s. SPS 314.001 (1) (a).

c. The date upon which each period of accumulation begins clearly visible for inspection on each container.

2. 'Tanks.' A small quantity generator accumulating hazardous waste in tanks shall do all of the following:

a. Mark or label its tanks with the words "Hazardous Waste."

b. Mark or label its tanks with an indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as, ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent

with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association, incorporated into s. SPS 314.001 (1) (a).

c. Use inventory logs, monitoring equipment, or other records to demonstrate that hazardous waste has been emptied within 180 days of first entering the tank if using a batch process, or in the case of a tank with a continuous flow process, demonstrate that estimated volumes of hazardous waste entering the tank daily exit the tank within 180 days of first entering.

d. Keep inventory logs or records with the information identified in subd. c. on-site and readily available for inspection.

(g) *Land disposal restrictions.* A small quantity generator shall comply with all applicable requirements under ch. NR 668.

(h) *Preparedness and prevention.* 1. 'Maintenance and operation of facility.' A small quantity generator shall maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment.

2. 'Required equipment.' All areas where hazardous waste is either generated or accumulated shall be equipped with all of the items specified in subd 2. a. to d.. A generator may demonstrate that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified under this subdivision or the actual waste generation or accumulation area does not lend itself for safety reasons to have a particular kind of equipment specified under this subdivision. A small quantity generator may determine the most appropriate locations to locate equipment necessary to prepare for and respond to emergencies. Required equipment includes all of the following:

a. An internal communications or alarm system capable of providing immediate emergency instruction, voice, or signal to facility personnel.

b. A device, such as a telephone, immediately available at the scene of operations, or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams.

c. Portable fire extinguishers, spill control equipment, decontamination equipment, and fire control equipment including special extinguishing equipment, such as those that use foam, inert gas, or dry chemicals.

d. Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

3. 'Testing and maintenance of equipment.' All communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

4. 'Access to communications or alarm system.' a. Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate, direct, and unimpeded access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under subd. 2.

b. In the event there is just one employee on the premises while the facility is operating, the employee shall have immediate, direct, and unimpeded access to a device, such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under subd. 2.

5. 'Required aisle space.' The small quantity generator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

6. 'Arrangements with local authorities.' a. The small quantity generator shall attempt to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the local emergency planning committee if it is determined to be the appropriate organization with which to make arrangements. A small quantity generator attempting to make arrangements with its local fire department shall determine the potential need for the services of the local police department, other emergency response teams, emergency response contractors, equipment suppliers, and local hospitals. As part of this coordination, the small quantity

generator shall attempt to make arrangements, as necessary, to familiarize the organizations identified in this paragraph with the layout of the facility, the properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes as well as the types of injuries or illnesses that could result from fires, explosions, or releases at the facility. Where more than one police or fire department might respond to an emergency, the small quantity generator shall attempt to make arrangements designating primary emergency authority to a specific fire or police department, and arrangements with any others to provide support to the primary emergency authority.

Note: A generator shall attempt to make arrangements to ensure that the generator will receive an immediate and appropriate emergency response from these authorities.

b. A small quantity generator shall maintain records documenting arrangements with the local fire department as well as any other organization necessary to respond to an emergency. This documentation shall include documentation in the operating record that either confirms such arrangements actively exist or, in cases where no arrangements exist, confirms that attempts to make such arrangements have been made.

c. A facility possessing 24-hour response capabilities may seek a waiver from the authority having jurisdiction over the fire code within the facility's state or locality as far as needing to make arrangements with the local fire department as well as any other organization necessary to respond to an emergency, provided that the waiver is documented in the operating record.

(i) *Emergency procedures.* The small quantity generator shall comply with all of the following conditions for those areas of the generator facility where hazardous waste is generated and accumulated:

1. At all times there shall be at least one employee either on the premises or on call and available to respond to an emergency by reaching the facility within a short period of time with the responsibility for coordinating all emergency response measures specified in subd. 4. This employee is the emergency coordinator.

2. The small quantity generator shall post all of the following information next to telephones or in areas directly involved in the generation and accumulation of hazardous waste:

a. The name and emergency telephone number of the emergency coordinator.

b. The location of fire extinguishers and spill control material, and, if present, fire alarm.

c. The telephone number of the fire department, unless the facility has a direct alarm.

3. The small quantity generator shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

4. The emergency coordinator, or his or her designee, shall take the following actions that are applicable in response to any emergency that may arise:

a. In the event of a fire, call the fire department or attempt to extinguish the fire using a fire extinguisher.

b. In the event of a spill, the small quantity generator is responsible for containing the flow of hazardous waste to the extent possible, and as soon as is practicable, cleaning up the hazardous waste and any contaminated materials or soil. Such containment and cleanup may be conducted either by the small quantity generator or by a contractor on behalf of the small quantity generator.

c. In the event of a fire, explosion, or other release that could threaten human health outside the facility or when the small quantity generator has knowledge that a spill has reached surface water, the small quantity generator shall immediately notify the National Response Center using the 24-hour toll free number 800-424-8802. The report shall include the following information: The name, address, and EPA identification number of the small quantity generator; date, time, and type of incident, spill, or fire; quantity and type of hazardous waste involved in the incident; extent of injuries, if any; and estimated quantity and disposition of recovered materials, if any.

(3) TRANSPORTING OVER 200 MILES. A small quantity generator that transports its waste, or offers its waste for transportation, over a distance of 200 miles or more for off-site treatment, storage, or disposal may accumulate hazardous waste on-site for 270 days or less without a license or without having interim status, provided that the generator complies with the conditions specified in sub. (2).

(4) ACCUMULATION TIME LIMIT EXTENSION. A small quantity generator who accumulates hazardous waste for more than 180 days, or for more than 270 days if it shall transport its waste, or offer its waste for transportation, over a distance of 200 miles or more, is subject to the requirements under chs. NR 664, 665, 667, 668, and 670 unless it has been granted

an extension to the 180-day period, or 270-day period, if applicable. Such extension may be granted by the department if hazardous wastes shall remain on-site for longer than 180 days, or 270 days if applicable, due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the department on a case-by-case basis.

(5) REJECTED LOAD. A small quantity generator that sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that shipment back as a rejected load or residue in accordance with the manifest discrepancy provisions under s. NR 664.0072 or 665.0072 may accumulate the returned waste on-site in accordance with subs. (1) to (4). Upon receipt of the returned shipment, the generator shall do one of the following:

(a) Sign Item 18c of the manifest, if the transporter returned the shipment using the original manifest.

(b) Sign Item 20 of the manifest, if the transporter returned the shipment using a new manifest.

(6) EPISODIC EVENT. A small quantity generator experiencing an episodic event, as defined in s. NR 662.231 (1), may accumulate hazardous waste in accordance with subch. L in lieu of complying with s. NR 662.017.

NR 662.017 Conditions for exemption for a large quantity generator that accumulates hazardous waste. A large quantity generator may accumulate hazardous waste on-site without a license or interim status, and without complying with the requirements of chs. NR 664 to 667 and 670, or from any requirement for notification under s. NR 660.07, provided that all of the following conditions for exemption are met:

(1) ACCUMULATION. A large quantity generator accumulates hazardous waste on-site for no more than 90 days, unless in compliance with the accumulation time limit extension or F006 accumulation conditions for exemption in subs. (2) to (5). All of the following accumulation conditions also apply:

(a) *Accumulation of hazardous waste in containers.* If the hazardous waste is placed in containers, the large quantity generator shall comply with the following:

1. 'Air emission standards.' The applicable requirements of subchs. AA, BB, and CC of ch. NR 665.

2. 'Condition of containers.' If a container holding hazardous waste is not in good condition, or if it begins to leak, the large quantity generator shall immediately transfer the hazardous waste to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this section.

3. 'Compatibility of waste with container.' The large quantity generator shall use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

4. 'Management of containers.' a. A container holding hazardous waste shall always be closed during accumulation, except when it is necessary to add or remove waste.

b. A container holding hazardous waste shall not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.

5. 'Inspections.' At least weekly, the large quantity generator shall inspect central accumulation areas. The large quantity generator shall look for leaking containers and for deterioration of containers caused by corrosion or other factors. See subd. 2. for remedial action required if deterioration or leaks are detected.

6. 'Special conditions for accumulation of ignitable and reactive wastes.' a. A container holding ignitable or reactive waste shall be located at least 15 meters from the facility's property line unless a written approval is obtained from the authority having jurisdiction over the local fire code allowing hazardous waste accumulation to occur within this restricted area. A record of the written approval shall be maintained as long as ignitable or reactive hazardous waste is accumulated in this area.

b. The large quantity generator shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste shall be separated and protected from sources of ignition or reaction including the following: open flames, smoking, cutting, welding, hot surfaces, frictional heat, static sparks, electrical sparks, mechanical sparks, spontaneous ignition, and radiant heat. While ignitable or reactive waste is being handled, the large quantity generator shall confine smoking and open flame to specially designated locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

7. 'Special conditions for accumulation of incompatible wastes.' a. The generator may not place incompatible wastes, or incompatible wastes and materials, in the same container unless the generator complies with the requirements specified in s. NR 665.0017 (2).

b. The generator shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material unless the generator complies with the requirements specified in s. NR 665.0017 (2).

c. A container holding a hazardous waste that is incompatible with any waste or other materials accumulated or stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

Note: See appendix V of ch. 665 for examples of incompatible wastes.

(b) *Accumulation of hazardous waste in tanks.* If the waste is placed in tanks, the large quantity generator shall comply with the applicable requirements of subch. J of ch. NR 665, except s. NR 665.0197 (3) for closure and post-closure care, and s. NR 665.200 as well as the applicable requirements of subchs. AA, BB, and CC of ch. NR 665.

(c) *Accumulation of hazardous waste on drip pads.* If the hazardous waste is placed on drip pads, the large quantity generator shall comply with all of the following:

1. Subch. W of ch. NR 665.

2. The large quantity generator shall remove all wastes from the drip pad at least once every 90 days. Any hazardous wastes that are removed from the drip pad are subject to the 90 day accumulation limit specified in sub. (1) and s. NR 662.015, if the hazardous wastes are being managed in satellite accumulation areas prior to being moved to a central accumulation area.

3. The large quantity generator shall maintain on-site at the facility and readily available for inspection all of the following records:

a. A written description of procedures that are followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days.

b. Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal.

(d) *Accumulation of hazardous waste in containment buildings.* If the waste is placed in containment buildings, the large quantity generator shall comply with of subch. DD of ch. NR 665. The generator shall label its containment building with the words "Hazardous Waste" in a

conspicuous place easily visible to employees, visitors, emergency responders, waste handlers, or other persons on-site, and also in a conspicuous place provide an indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as, ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association 704 label, incorporated into s. SPS 314.001 (1) (a). The generator shall also maintain all of the following:

1. The professional engineer certification that the building complies with the design standards specified in ch. NR 665.1101. This certification shall be in the generator's files prior to operation of the unit.

2. One of the following records, by use of inventory logs, monitoring equipment, or any other effective means, shall be maintained and readily available for inspection:

a. A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that the generator is consistent with respecting the 90 day limit, and documentation that the procedures are complied with.

b. Documentation that the unit is emptied at least once every 90 days.

(e) *Labeling and marking of containers and tanks*. 1. 'Containers.' A large quantity generator shall mark or label its containers with all of the following:

a. The words "Hazardous Waste."

b. An indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association 704 label, incorporated into s. SPS 314.001 (1) (a).

c. The date upon which each period of accumulation begins clearly visible for inspection on each container.

2. 'Tanks.' A large quantity generator accumulating hazardous waste in tanks shall do all of the following:

a. Mark or label its tanks with the words "Hazardous Waste".

b. Mark or label its tanks with an indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association 704 label, incorporated into s. SPS 314.001 (1) (a).

c. Use inventory logs, monitoring equipment or other records to demonstrate that hazardous waste has been emptied within 90 days of first entering the tank if using a batch process, or in the case of a tank with a continuous flow process, demonstrate that estimated volumes of hazardous waste entering the tank daily exit the tank within 90 days of first entering.

d. Keep inventory logs or records with the information identified in this subdivision, which shall be maintained on-site and readily available for inspection.

(f) *Emergency procedures.* The large quantity generator complies with the standards in subch. M, Preparedness, Prevention and Emergency Procedures for Large Quantity Generators.

(g) *Personnel training.* 1. a. Facility personnel shall successfully complete a program of classroom instruction, online training or computer-based training, or on-the-job training that teaches them to perform their duties in a way that ensures compliance with this chapter. The large quantity generator shall ensure that this program includes all the elements described in the document required under subd. 4.

b. This program shall be directed by a person trained in hazardous waste management procedures, and shall include instruction that teaches facility personnel hazardous waste management procedures, including contingency plan implementation, relevant to the positions in which they are employed.

c. At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including the following where applicable: procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment; key parameters for automatic waste feed cut-off systems; communications or alarm systems; response to fires or explosions; response to ground-water contamination incidents; and shutdown of operations.

d. For facility employees that receive emergency response training according to Occupational Safety and Health Administration regulations 29 CFR 1910.120 (p) (8) and 1910.120 (q) incorporated into s. SPS 332.50, the large quantity generator is not required to provide separate emergency response training according to this section, provided that the overall facility training meets all the conditions of exemption in this section.

2. Facility personnel shall successfully complete the program required in subd. 1. within 6 months after the date of their employment or assignment to the facility, or to a new position at the facility, whichever is later. Employees shall not work in unsupervised positions until they have completed the training standards required in subd. 1.

3. Facility personnel shall take part in an annual review of the initial training required in subd. 1.

4. The large quantity generator shall maintain all of the following documents and records at the facility:

a. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job.

b. A written job description for each position listed under subd. 4. a. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but shall include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position.

c. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under subd. 4. a.

d. Records that document that the training or job experience, required under subds. 1., 2., and 3. has been given to, and completed by, facility personnel.

5. Training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least 3 years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

(h) *Closure.* A large quantity generator accumulating hazardous wastes in containers, tanks, drip pads, and containment buildings, prior to closing a unit at the facility, or prior to closing the facility, shall meet all of the following:

1. 'Notification for closure of a waste accumulation unit.' A large quantity generator shall perform one of the following actions when closing a waste accumulation unit:

a. Place a notice in the operating record within 30 days after closure identifying the location of the unit within the facility.

b. Meet the closure performance standards of subd. 3. for container, tank, and containment building waste accumulation units or subd. 4. for drip pads and notify the department following the procedures in subd. 2. b. for the waste accumulation unit. If the waste accumulation unit is subsequently reopened, the generator may remove the notice from the operating record.

2. 'Notification for closure of the facility.' a. Notify the department using form 8700-12 no later than 30 days prior to closing the facility.

b. Notify the department using form 8700-12 within 90 days after closing the facility that it has complied with the closure performance standards of subd. 3. or 4. If the facility cannot meet the closure performance standards of subd. 3. or 4., notify the department using form 8700-12 that it will close as a landfill under s. NR 665.0310 in the case of a container, tank or containment building unit, or for a facility with drip pads, notify the department using form 8700-12 that it will close under the standards specified in s. NR 665.0445 (2).

c. A large quantity generator may request additional time to clean close, but it shall notify the department using form 8700-12 within 75 days after the date provided in subd. 2. a. to request an extension and provide an explanation as to why the additional time is required.

3. 'Closure performance standards for container, tank systems, and containment building waste accumulation units.*'* At closure, the generator shall close the waste accumulation unit or facility in a manner that meets all of the following:

a. Minimizes the need for further maintenance by controlling, minimizing, or eliminating, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere.

b. Removes or decontaminates all contaminated equipment, structures and soil and any remaining hazardous waste residues from waste accumulation units including containment system components, contaminated soils and subsoils, bases, and structures and equipment contaminated with waste, unless s. NR 661.0003 (4) applies.

c. Any hazardous waste generated in the process of closing either the generator's facility or units accumulating hazardous waste shall be managed in accordance with all applicable standards under chs. NR 662, 663, 665 and 668, including removing any hazardous waste contained in these units within 90 days of generating it and managing these wastes in a RCRA Subtitle C hazardous waste permitted treatment, storage and disposal facility or interim status facility.

d. If the generator demonstrates that any contaminated soils and wastes cannot be practicably removed or decontaminated as required in subd. 3. b., then the waste accumulation unit is considered to be a landfill and the generator shall close the waste accumulation unit and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills under s. NR 665.0310. In addition, for the purposes of closure, post-closure, and financial responsibility, the waste accumulation unit is then considered to be a landfill, and the generator shall meet all of the requirements for landfills specified in subchs. G and H of ch. NR 665.

4. ‘Closure performance standards for drip pad waste accumulation units.’ At closure, the generator shall comply with the closure requirements of subds. 2., 3.a., and 3.c., and s. NR 665.0445 (1) and (2).

5. ‘Applicability of closure performance standards to satellite accumulation areas’ The closure requirements of this paragraph do not apply to satellite accumulation areas.

(i) *Land disposal restrictions.* The large quantity generator complies with all applicable requirements under ch. NR 668.

(2) ACCUMULATION TIME LIMIT EXTENSION. A large quantity generator who accumulates hazardous waste for more than 90 days is subject to the requirements under chs. NR

664 to 668, and 670, and the notification requirements under s. NR 660.07, unless it has been granted an extension to the 90 day period. An extension may be granted by the department if hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. A one time extension of up to 30 days, per occurrence, may be granted at the discretion of the department on a case-by-case basis.

(3) ACCUMULATION OF F006 WASTE. A large quantity generator that also generates wastewater treatment sludges from electroplating operations that meet the listing description for the EPA hazardous waste number F006, may accumulate F006 waste on-site for more than 90 days, but not more than 180 days without being subject to chs. NR 664 to 667 and 670, and the notification requirements under s. NR 660.07, provided that it complies with all of the following additional conditions for exemption:

(a) The large quantity generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants, or contaminants entering F006 or otherwise released to the environment prior to its recycling.

(b) The F006 waste is legitimately recycled through metals recovery.

(c) No more than 20,000 kilograms of F006 waste is accumulated on-site at any one time.

(d) The F006 waste is managed in accordance with all of the following:

1. a. If the F006 waste is placed in containers, the large quantity generator shall comply with the applicable conditions for exemption under sub. (1) (a).

b. If the F006 is placed in tanks, the large quantity generator shall comply with the applicable conditions for exemption under sub. (1) (b).

c. If the F006 is placed in containment buildings, the large quantity generator shall comply with subch. DD of ch. NR 665, and shall place its professional engineer certification that the building complies with the design standards specified in s. NR 665.1101 in the facility's files prior to operation of the unit. One of the following records shall be maintained and readily available for inspection:

1) A written description of procedures to ensure that the F006 waste remains in the unit for no more than 180 days, a written description of the waste generation, and management practices for the facility showing that they are consistent with the 180-day limit, and documentation that the large quantity generator is complying with the procedures.

2) Documentation that the unit is emptied at least once every 180 days.

2. The large quantity generator is exempt from all the requirements in subchs. G and H of ch. NR 665, except for those referenced in sub. (1) (h).

3. The date upon which each period of accumulation begins is clearly marked and shall be clearly visible for inspection on each container.

4. While being accumulated on-site, each container and tank is labeled or marked clearly with all of the following:

a. The words "Hazardous Waste."

b. An indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01(3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association 704 label, incorporated into s. SPS 314.001(1)(a).

5. The large quantity generator complies with the requirements specified in sub. (1) (f) and (g).

(4) F006 WASTE TRANSPORTED OVER 200 MILES. A large quantity generator who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the EPA hazardous waste number F006, and who shall transport this waste, or offer this waste for transportation, over a distance of 200 miles or more for off-site metals recovery, may accumulate F006 waste on-site for more than 90 days, but not more than 270 days without being subject to chs. NR 664 to 667, 670, and the notification requirements under s. NR 660.07, if the large quantity generator complies with all of the conditions for exemption under sub. (3) (a) to (d).

(5) F006 WASTE ACCUMULATION TIME EXTENSION. A large quantity generator accumulating F006 in accordance with subs. (3) and (4) who accumulates F006 waste on-site for more than 180 days, or for more than 270 days if the generator must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more, or who accumulates more than 20,000 kilograms of F006 waste on-site is an operator of a storage facility and is subject to

the requirements under chs. NR 664, 665, 667, and 670, and the notification requirements under s. NR 660.07, unless the generator has been granted an extension to the 180 days, or 270 days if applicable, period or an exception to the 20,000 kilograms accumulation limit. Such extensions and exceptions may be granted by the department if the F006 waste must remain on-site for longer than 180 days, or 270 days if applicable, or if more than 20,000 kilograms of F006 waste must remain on-site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the department on a case-by-case basis.

(6) CONSOLIDATION OF HAZARDOUS WASTE RECEIVED FROM VERY SMALL QUANTITY GENERATORS. In this subsection "control" means the power to direct the policies of the generator, whether by the ownership of stock, voting rights, or otherwise, except that a contractor who operates generator facilities on behalf of a different person shall not be deemed to "control" such generators. Large quantity generators may accumulate on-site hazardous waste received from very small quantity generators under control of the same person as defined in s. NR 660.10 (90), without a storage license or interim status and without complying with the requirements under chs. NR 664 to 668, and 670, and the notification requirements under s. NR 660.07, provided they comply with all of the following:

(a) The large quantity generator notifies the department at least 30 days prior to receiving the first shipment from a very small quantity generator using EPA Form 8700-12. The large quantity generator shall do all of the following:

1. Identify on the form the name and site address for the very small quantity generator as well as the name and business telephone number for a contact person for the very small quantity generator.

2. Submit an updated Site ID form using EPA Form 8700-12 within 30 days after a change in the name or site address for the very small quantity generator.

(b) The large quantity generator maintains records of shipments for 3 years from the date the hazardous waste was received from the very small quantity generator. These records shall identify the name, site address, and contact information for the very small quantity generator and include a description of the hazardous waste received, including the quantity and the date the waste was received.

(c) The large quantity generator complies with the independent requirements identified in s. NR 662.010 (1) (a) 3. and the conditions for exemption in this section for all hazardous waste received from a very small quantity generator. For purposes of the labeling and marking regulations under sub. (1) (e), the large quantity generator shall label the container or unit with the date the hazardous waste was received from the very small quantity generator. If the large quantity generator is consolidating incoming hazardous waste from a very small quantity generator with either its own hazardous waste or with hazardous waste from other very small quantity generators, the large quantity generator shall label each container or unit with the earliest date any hazardous waste in the container was accumulated on-site.

(7) REJECTED LOAD. A large quantity generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that shipment back as a rejected load or residue in accordance with the manifest discrepancy provisions under s. NR 664.0072 or s. NR 665.0072 may accumulate the returned waste on-site in accordance with subs. (1) and (2). Upon receipt of the returned shipment, the generator shall do one of the following:

(a) Sign Item 18c of the manifest, if the transporter returned the shipment using the original manifest.

(b) Sign Item 20 of the manifest, if the transporter returned the shipment using a new manifest.

NR 662.018 EPA identification numbers and re-notification for small quantity generators and large quantity generators. (1) A generator shall not treat, store, dispose of, transport, or offer for transportation, hazardous waste without having received an EPA identification number from the department.

(2) A generator who has not received an EPA identification number shall obtain one by applying to the department using EPA Form 8700-12. Upon receiving the request, the department will assign an EPA identification number to the generator.

(3) A generator shall not offer its hazardous waste to transporters or to treatment, storage, or disposal facilities that have not received an EPA identification number.

(4) (a) A small quantity generator shall re-notify the department by March 1 of each even-numbered year using EPA Form 8700-12. A small quantity generator may submit this re-notification as part of its annual report required under s. NR 662.041.

(b) A large quantity generator shall re-notify the department by March 1 of each even-numbered year using EPA Form 8700-12. A large quantity generator may submit this re-notification as part of its annual report required under s. NR 662.041.

(5) A recognized trader shall not arrange for import or export of hazardous waste without having received an EPA identification number from the department.

Subchapter B — Manifest Requirements Applicable to Small and Large Quantity Generators

NR 662.020 General requirements. (1) (a) A generator that transports, or offers for transport a hazardous waste for offsite treatment, storage, or disposal, or a treatment, storage, or disposal facility that offers for transport a rejected hazardous waste load, shall prepare a Manifest, OMB Control number 2050-0039, on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A.

(b) The revised manifest form and procedures specified in ss. NR 660.10, 661.0007, 662.020, 662.021, 662.027, 662.032, 662.034, 662.054, and 662.060 shall not apply until September 5, 2006. The manifest form and procedures specified in s. 660.10, 661.0007, 662.020, 662.021, 662.032, 662.054 and 662.060, contained in chs. 660 to 665, edition revised as of July 1, 2004, shall be applicable until September 5, 2006.

(c) In lieu of using the manifest form specified in sub. (1) (a), a person required to prepare a manifest under sub. (1) (a) of this section may prepare and use an electronic manifest, provided that the person does all of the following:

1. Complies with the requirements specified in s. NR 662.024 for use of electronic manifests.

2. Complies with the requirements of 40 CFR 3.10 for the reporting of electronic documents to EPA.

(2) A generator shall designate on the manifest one facility that is permitted to handle the waste described on the manifest.

(3) A generator may also designate on the manifest one alternate facility that is permitted to handle the waste in the event an emergency prevents delivery of the waste to the primary designated facility.

(4) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator shall either designate another facility or instruct the transporter to return the waste.

(5) The requirements of this subchapter do not apply to hazardous waste produced by small quantity generators where all of the following occurs:

(a) The waste is reclaimed under a contractual agreement according to which:

1. The type of waste and frequency of shipments are specified in the agreement.

2. The vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste.

(b) The generator maintains a copy of the reclamation agreement in its files for a period of at least 3 years after termination or expiration of the agreement.

(6) The requirements of this subchapter and s. NR 662.032 (2) do not apply to the transport of hazardous wastes on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way. Excluding s. NR 663.10 (1), the generator or transporter shall comply with the requirements for transporters set forth in ss. NR 663.30 and 663.31 in the event of a discharge of hazardous waste on a public or private right-of-way.

NR 662.021 Manifest tracking numbers, manifest printing, and obtaining manifests.

Note: This section is based is on 40 CFR 262.21 and is administered and enforced by EPA. Wisconsin has adopted these requirements into its rules for the convenience of the regulated community.

(1) (a) A registrant may not print, or have printed, the manifest for use of distribution unless it has received approval from the EPA Director of the Office of Resource Conservation and Recovery to do so under subs. (3) and (5).

(b) The approved registrant is responsible for ensuring that the organizations identified in its application are in compliance with the procedures of its approved application and the

requirements of this section. The registrant is responsible for assigning manifest tracking numbers to its manifests.

(2) A registrant shall submit an initial application to the EPA Director of the Office of Resource Conservation and Recovery that contains all of the following information:

(a) Name and mailing address of registrant.

(b) Name, telephone number and email address of contact person.

(c) Brief description of registrant's government or business activity.

(d) EPA identification number of the registrant, if applicable.

(e) Description of the scope of the operations that the registrant plans to undertake in printing, distributing, and using its manifests, including all of the following:

1. A description of the printing operation. The description should include an explanation of whether the registrant intends to print its manifests in-house or through a separate and unaffiliated printing company. If the registrant intends to use a separate printing company to print the manifest on its behalf, the application shall identify this printing company and discuss how the registrant will oversee the company. If this includes the use of intermediaries, such as prime and subcontractor relationships, the role of each must be discussed. The application shall provide the name and mailing address of each company. It also shall provide the name and telephone number of the contact person at each company.

2. A description of how the registrant will ensure that its organization and unaffiliated companies, if any, comply with the requirements of this section. The application shall discuss how the registrant will ensure that a unique manifest tracking number will be pre-printed on each manifest. The application shall describe the internal control procedures to be followed by the registrant and unaffiliated companies to ensure that numbers are tightly controlled and remain unique. In particular, the application shall describe how the registrant will assign manifest tracking numbers to its manifests. If computer systems or other infrastructure will be used to maintain, track, or assign numbers, these should be indicated. The application shall also indicate how the printer will pre-print a unique number on each form, such as crash or press numbering. The application also shall explain the other quality procedures to be followed by each establishment and printing company to ensure that all required print specifications are consistently achieved and that printing violations are identified and corrected at the earliest practicable time.

3. An indication of whether the registrant intends to use the manifests for its own business operations or to distribute the manifests to a separate company or to the general public for purchase.

(f) A brief description of the qualifications of the company that will print the manifest. The registrant may use readily available information to do so, such as corporate brochures, product samples, customer references, or documentation of ISO certification, so long as such information pertains to the establishments or company being proposed to print the manifest.

(g) Proposed unique three-letter manifest tracking number suffix. If the registrant is approved to print the manifest, the registrant shall use this suffix to pre-print a unique manifest tracking number on each manifest.

(h) A signed certification by a duly authorized employee of the registrant that the organizations and companies in its application will comply with the procedures of its approved application and the requirements of this section and that it will notify the EPA Director of the Office of Resource Conservation and Recovery of any duplicated manifest tracking numbers on manifests that have been used or distributed to other parties as soon as this becomes known.

(3) EPA will review the application submitted under sub. (2) and either approve it or request additional information or modification before approving it.

(4) (a) Upon EPA approval of the application under sub. (3), EPA will provide the registrant an electronic file of the manifest, continuation sheet, and manifest instructions and ask the registrant to submit 3 fully assembled manifests and continuation sheet samples, except as noted in sub. (4) (c). The registrant's samples shall meet all of the specifications in sub. (6) and be printed by the company that will print the manifest as identified in the application approved under sub. (3).

(b) The registrant shall submit a description of the manifest samples as follows:

1. Paper type including the manufacturer and grade of the manifest paper.

2. Paper weight of each copy.

3. Ink color of the manifest's instructions. If screening of the ink was used, the registrant shall indicate the extent of the screening.

4. Method of binding the copies.

(c) The registrant need not submit samples of the continuation sheet if it will print its continuation sheet using the same paper type, paper weight of each copy, ink color of the instructions, and binding method as its manifest form samples.

(5) EPA will evaluate the forms and either approve the registrant to print them as proposed or request additional information or modification to them before approval. EPA will notify the registrant of its decision by mail. The registrant cannot use or distribute its forms until EPA approves them. An approved registrant shall print the manifest and continuation sheet according to its application approved under sub. (3) and the manifest specifications in sub. (6). It also shall print the forms according to the paper type, paper weight, ink color of the manifest instructions and binding method of its approved forms.

(6) Paper manifests and continuation sheets shall be printed according to the following specifications:

(a) The manifest and continuation sheet shall be printed with the exact format and appearance as EPA Forms 8700-22 and 8700-22A, respectively. However, information required to complete the manifest may be pre-printed on the manifest form.

(b) A unique manifest tracking number assigned in accordance with a numbering system approved by EPA shall be pre-printed in item 4 of the manifest. The tracking number shall consist of a unique three-letter suffix following 9 digits.

(c) The manifest and continuation sheet shall be printed on 8⁄2 × 11-inch white paper, excluding common stubs, such as top- or side-bound stubs. The paper shall be durable enough to withstand normal use.

(d) The manifest and continuation sheet shall be printed in black ink that can be legibly photocopied, scanned, or faxed, except that the marginal words indicating copy distribution shall be printed with a distinct ink color or with another method, such as white text against black background in text box, or, black text against grey background in text box, that clearly distinguishes the copy distribution notations from the other text and data entries on the form.

(e) The manifest and continuation sheet shall be printed as five-copy forms. Copy-to-copy registration shall be exact within 1/32nd of an inch. Handwritten and typed impressions on the form shall be legible on all 5 copies. Copies shall be bound together by one or more common stubs that reasonably ensure that they will not become detached inadvertently during normal use.

(f) Each copy of the manifest and continuation sheet shall indicate how the copy shall be distributed, as follows:

1. Page 1, top copy: “Designated facility to EPA's e-Manifest system.”

2. Page 2: “Designated facility to generator.”

3. Page 3: “Designated facility copy.”

4. Page 4: “Transporter copy.”

5. Page 5, bottom copy: “Generator's initial copy.”

(g) The instructions for the manifest form, EPA Form 8700-22, and the manifest continuation sheet, EPA Form 8700-22A, shall be printed in accordance with the content that is currently approved under OMB Control Number 2050-0039 and published to the e-Manifest program's website. The instructions shall appear legibly on the back of the copies of the manifest and continuation sheet as provided in this subsection. The instructions shall not be visible through the front of the copies when photocopied or faxed.

1. Manifest Form 8700-22.

a. The “Instructions for Generators” on Copy 5.

b. The “Instructions for International Shipment Block” and “Instructions for Transporters” on Copy 4.

c. The “Instructions for Treatment, Storage, and Disposal Facilities” on Copy 3.

2. Manifest Form 8700-22A.

a. The “Instructions for Generators” on Copy 5.

b. The “Instructions for Transporters” on Copy 4.

c. The “Instructions for Treatment, Storage, and Disposal Facilities” on Copy 3.

(h) The designated facility copy of each manifest and continuation sheet shall include in the bottom margin the following warning in prominent font: “If you received this manifest, you have responsibilities under the e-Manifest Act. See instructions on reverse side.”

(7) (a) A generator may use manifests printed by any source so long as the source of the printed form has received approval from EPA to print the manifest under subs. (3) and (5). A registered source may be any of the following:

1. State agency.

2. Commercial printer.

3. Hazardous waste generator, transporter or a treatment, storage, or disposal facility.

4. Hazardous waste broker or other preparer who prepares or arranges shipments of hazardous waste for transportation.

(b) A generator shall determine whether the generator state or the consignment state for a shipment regulates any additional wastes, beyond those regulated federally, as hazardous wastes under these states' authorized programs. Generators also shall determine whether the consignment state or generator state requires the generator to submit any copies of the manifest to these states. In cases where the generator must supply copies to either the generator's state or the consignment state, the generator is responsible for supplying legible photocopies of the manifest to these states.

(8) (a) If an approved registrant would like to update any of the information provided in its application approved under sub. (3), such as to update a company phone number or name of contact person, the registrant shall revise the application and submit it to the EPA Director of the Office of Resource Conservation and Recovery, along with an indication or explanation of the update, as soon as practicable after the change occurs. EPA either will approve or deny the revision. If EPA denies the revision, it will explain the reasons for the denial, and it will contact the registrant and request further modification before approval.

(b) If the registrant would like a new tracking number suffix, the registrant shall submit a proposed suffix to the EPA Director of the Office of Resource Conservation and Recovery, along with the reason for requesting it. EPA will either approve the suffix or deny the suffix and provide an explanation why it is not acceptable.

(c) If a registrant would like to change the paper type, paper weight, ink color of the manifest instructions, or binding method of its manifest or continuation sheet subsequent to approval under sub. (5), then the registrant shall submit 3 samples of the revised form for EPA review and approval. If the approved registrant would like to use a new printer, the registrant shall submit 3 manifest samples printed by the new printer, along with a brief description of the printer's qualifications to print the manifest. EPA will evaluate the manifests and either approve the registrant to print the forms as proposed or request additional information or modification to them before approval. EPA will notify the registrant of its decision by mail. The registrant cannot use or distribute its revised forms until EPA approves them.

(9) If, subsequent to its approval under sub. (5), a registrant typesets its manifest or continuation sheet instead of using the electronic file of the forms provided by EPA, it shall

submit 3 samples of the manifest or continuation sheet to the registry for approval. EPA will evaluate the manifests or continuation sheets and either approve the registrant to print them as proposed or request additional information or modification to them before approval. EPA will notify the registrant of its decision by mail. The registrant cannot use or distribute its typeset forms until EPA approves them.

(10) EPA may exempt a registrant from the requirement to submit form samples under subs. (4) or (8) (c) if EPA is persuaded that a separate review of the registrant's forms would serve little purpose in informing an approval decision, such as a registrant certifies that it will print the manifest using the same paper type, paper weight, ink color of the instructions and binding method of the form samples approved for some other registrant. A registrant may request an exemption from EPA by indicating why an exemption is warranted.

(11) An approved registrant shall notify EPA by phone or email as soon as it becomes aware that it has duplicated tracking numbers on any manifests that have been used or distributed to other parties.

(12) If, subsequent to approval of a registrant under sub. (5), EPA becomes aware that the approved paper type, paper weight, ink color of the instructions, or binding method of the registrant's form is unsatisfactory, EPA will contact the registrant and require modifications to the form.

(13) (a) EPA may suspend and, if necessary, revoke printing privileges if EPA finds that the registrant:

1. Has used or distributed forms that deviate from its approved form samples in regard to paper weight, paper type, ink color of the instructions, or binding method.

2. Exhibits a continuing pattern of behavior in using or distributing manifests that contain duplicate manifest tracking numbers.

(b) EPA will send a warning letter to the registrant that specifies the date by which it must come into compliance with the requirements. If the registrant does not come in compliance by the specified date, EPA will send a second letter notifying the registrant that EPA has suspended or revoked its printing privileges. An approved registrant shall provide information on its printing activities to EPA if requested.

NR 662.022 Number of copies. The manifest consists of at least the number of copies that will provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and another copy to be returned to the generator.

NR 662.023 Use of the manifest.

(1) The generator shall do all of the following:

(a) Sign the manifest certification by hand.

(b) Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest.

(c) Retain one copy, in accordance with s. NR 662.040 (1).

(2) The generator shall give the transporter the remaining copies of the manifest.

(3) For shipments of hazardous waste within the United States solely by water, bulk shipments only, the generator shall send 3 copies of the manifest dated and signed in accordance with this section to the owner or operator of the designated facility or the last water, bulk shipment, transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(4) For rail shipments of hazardous waste within the United States which originate at the site of generation, the generator shall send at least 3 copies of the manifest dated and signed in accordance with this section to any of the following:

(a) The next non-rail transporter, if any.

(b) The designated facility if transported solely by rail.

(c) The last rail transporter to handle the waste in the United States if exported by rail.

(5) For shipments of hazardous waste to a designated facility in an authorized State that has not yet obtained authorization to regulate that particular waste as hazardous, the generator shall assure that the designated facility agrees to sign and return the manifest to the generator, and that any out-of-state transporter signs and forwards the manifest to the designated facility.

Note: See s. NR 663.20 (5) and (6) for special provisions for bulk shipment by rail or water.

(6) For rejected shipments of hazardous waste or container residues contained in non-empty containers that are returned to the generator by the designated facility, following the procedures under s. NR 664.0072 (6) or 665.0072 (6), the generator shall do all of the following:

(a) Sign either:

1. Item 20 of the new manifest if a new manifest is used for the returned shipment.

2. Item 18c of the original manifest if the original manifest is used for the returned shipment.

(b) Provide the transporter a copy of the manifest.

(c) Within 30 days of delivery of the rejected shipment or container residues contained in non-empty containers, send a copy of the manifest to the designated facility that returned the shipment to the generator.

(d) Retain at the generator's site a copy of each manifest for at least 3 years from the date of delivery.

NR 662.024 Use of the electronic manifest. (1) LEGAL EQUIVALENCE TO PAPER MANIFESTS. Electronic manifests that are obtained, completed, and transmitted in accordance with s. NR 662.020 (1) (c), and used in accordance with this section in lieu of EPA Forms 8700-22 and 8700-22A are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in these regulations to obtain, complete, sign, provide, use, or retain a manifest.

(a) Any requirement in these regulations to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning specified in 40 CFR 262.25 and s. NR 662.025.

(b) Any requirement in these regulations to give, provide, send, forward, or return to another person a copy of the manifest is satisfied when an electronic manifest is transmitted to the other person by submission to the system.

(c) Any requirement in these regulations for a generator to keep or retain a copy of each manifest is satisfied by retention of a signed electronic manifest in the generator's account on the national e-Manifest system, provided that the copies are readily available for viewing and production if requested by the department.

(d) A generator is not in violation of s. NR 662.040 (1) for the inability to produce an electronic manifest for inspection under this section if the generator can demonstrate that the

inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the generator bears no responsibility.

(2) PARTICIPATION IN THE ELECTRONIC MANIFEST SYSTEM. A generator may participate in the electronic manifest system either by accessing the electronic manifest system from its own electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the generator's site by the transporter who accepts the hazardous waste shipment from the generator for off-site transportation.

(3) RESTRICTION ON USE OF ELECTRONIC MANIFESTS. A generator may use an electronic manifest for the tracking of waste shipments involving any RCRA hazardous waste only if it is known at the time the manifest is originated that all waste handlers named on the manifest participate in the use of the electronic manifest, except that:

(a) A generator may sign by hand and retain a paper copy of the manifest signed by hand by the initial transporter, in lieu of executing the generator copy electronically, thereby enabling the transporter and subsequent waste handlers to execute the remainder of the manifest copies electronically.

(4) REQUIREMENT FOR ONE PRINTED COPY. To the extent the hazardous materials regulation on shipping papers for carriage by public highway requires shippers of hazardous materials to supply a paper document for compliance with 49 CFR 177.817, a generator originating an electronic manifest shall also provide the initial transporter with one printed copy of the electronic manifest.

(5) SPECIAL PROCEDURES WHEN ELECTRONIC MANIFEST IS UNAVAILABLE. If a generator has prepared an electronic manifest for a hazardous waste shipment, but the electronic manifest system becomes unavailable for any reason prior to the time that the initial transporter has signed electronically to acknowledge the receipt of the hazardous waste from the generator, then the generator must obtain and complete a paper manifest and if necessary, a continuation sheet, EPA Forms 8700-22 and 8700-22A, in accordance with the manifest instructions, and use these paper forms from this point forward in accordance with the requirements specified in s. NR 662.023.

(6) SPECIAL PROCEDURES FOR ELECTRONIC SIGNATURE METHODS UNDERGOING TESTS. If a generator has prepared an electronic manifest for a hazardous waste shipment, and signs this manifest electronically using an electronic signature method that

is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the generator shall also sign with an ink signature the generator/offeror certification on the printed copy of the manifest provided under sub. (4).

(8) POST-RECEIPT MANIFEST DATA CORRECTIONS. After a facility has certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person named on the manifest. A generator may participate electronically in the post-receipt data corrections process by following the process described in s. NR 664.0071 (9), which applies to corrections made to either paper or electronic manifest records.

NR 662.025 Electronic manifest signatures. Electronic signature methods for the e-Manifest system shall meet all of the following:

(1) Be a legally valid and enforceable signature under applicable EPA and other federal requirements pertaining to electronic signatures.

(2) Be a method that is designed and implemented in a manner that EPA considers to be as cost-effective and practical as possible for the users of the manifest.

NR 662.027 Waste minimization certification. A generator that initiates a shipment of hazardous waste shall certify in Item 15 of the uniform hazardous waste manifest to one of the following statements:

(1) "I am a large quantity generator. I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment."

(2) "I am a small quantity generator. I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford."

Subchapter C — Pre-Transport Requirements Applicable to Small and Large Quantity Generators

NR 662.030 Packaging. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall package the waste in accordance with the applicable department of transportation regulations on packaging under 49 CFR parts 173, 178, and 179.

NR 662.031 Labeling. Before transporting or offering hazardous waste for transportation off-site, a generator shall label each package in accordance with the applicable department of transportation regulations on hazardous materials under 49 CFR parts 172.

NR 662.032 Marking. (1) Before transporting or offering hazardous waste for transportation off-site, a generator shall mark each package of hazardous waste in accordance with the applicable department of transportation regulations on hazardous materials under 49 CFR parts 172.

(2) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall mark each container of 119 gallons or less used in such transportation with the information in accordance with the requirements of 49 CFR 172.304 and all of the following words:

(a) HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

(b) Generator's Name and Address ____.

(c) Generator's EPA identification number ____.

(d) Manifest Tracking Number ____.

(e) EPA Hazardous Waste Number ____.

(3) A generator may use a nationally recognized electronic system, such as bar coding, to identify the EPA hazardous waste numbers, as required under sub. (2) (e) or (4).

(4) Lab packs that will be incinerated in compliance with s. NR 668.42 (3) are not required to be marked with EPA hazardous waste numbers, except D004, D005, D006, D007, D008, D010, and D011, where applicable.

NR 662.033 Placarding. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall placard or offer the initial transporter the appropriate placards according to department of transportation regulations for hazardous materials under 49 CFR part 172, subpart F.

NR 662.035 Liquids in landfills prohibition. The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids, whether or not sorbents have been added, in any landfill is prohibited. Prior to disposal in a hazardous waste landfill, liquids shall meet additional requirements as specified in ss. NR 664.314 and 665.314.

Subchapter D — Recordkeeping and Reporting Applicable to Small and Large Quantity Generators

NR 662.040 Recordkeeping. (1) A generator shall keep a copy of each manifest signed in accordance with s. NR 662.023 (1) for 3 years or until the generator receives a signed copy from the designated facility that received the waste. This signed copy shall be retained as a record for at least 3 years from the date the waste was accepted by the initial transporter.

(2) A generator shall keep a copy of each annual report and exception report for a period of at least 3 years from the due date of the report.

(3) A generator shall comply with s. NR 662.011 (6) for recordkeeping requirements for documenting hazardous waste determinations.

(4) The periods or retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the department.

NR 662.041 Annual reports for small and large quantity generators. (1) A generator that is a large quantity generator for at least one month during the calendar year that ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States shall complete and submit an annual report to the department by March 1 of each year. The annual report shall be submitted on department forms and cover generator activities during the previous year. The generator shall use the fee worksheet to determine the environmental repair fee that shall be paid to the department as specified in s. 289.67 (2), Stats.

(2) Any generator that is a large quantity generator for at least one month during the calendar year that treats, stores, or disposes of hazardous waste on-site shall complete and submit an annual report to the department by March 1 of each year in accordance with the provisions under chs. NR 664, 665, 666, 667 and 670. This requirement also applies to large quantity generators that receive hazardous waste from very small quantity generators according to s. NR 662.017 (6). The generator shall use the fee worksheet to determine the environmental repair fee that shall be paid to the department as specified in s. 289.67 (2), Stats.

(3) Exports of hazardous waste to foreign countries are not required to be reported on the biennial report form. A separate annual report requirement is set forth under s. NR 662.083 (7) for hazardous waste exporters.

(4) A generator that is a small quantity generator for at least one month during the calendar year and is not already subject to subs. (1) and (2) and that ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States shall complete and submit an annual report to the department by March 1 of each year. The annual report shall be submitted on department forms and cover generator activities during the previous year. The generator fee worksheet to determine the environmental repair fee that shall be paid to the department as specified in s. 289.67 (2), Stats.

(5) Any generator that is a small quantity generator for at least one month during the calendar year and is not already subject to sub. (1) and (2) and that treats, stores, or disposes of hazardous waste on-site shall complete and submit an annual report to the department by March 1 of each year in accordance with the provisions under chs. NR 664, 665, 666, 667 and 670. The generator fee worksheet to determine the environmental repair fee that shall be paid to the department as specified in s. 289.67 (2), Stats.

Note: Information on annual reporting is available at: http://dnr.wi.gov/topic/Waste/AnnualReport.html.

NR 662.042 Exception reporting. (1) (a) A large quantity generator that does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter shall contact the transporter or the owner or operator of the designated facility to determine the status of the hazardous waste.

(b) A large quantity generator shall submit an exception report to the department if the generator has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter. The exception report shall include all of the following:

1. A legible copy of the manifest for which the generator does not have confirmation of delivery.

2. A cover letter signed by the generator or its authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

(2) A small quantity generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter shall submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the department.

Note: The submission to the department need only be a handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received.

(3) For rejected shipments of hazardous waste or container residues contained in non-empty containers that are forwarded to an alternate facility by a designated facility using a new manifest, the generator shall comply with the applicable requirements under subs. (1) or (2) for the shipment forwarding the material from the designated facility to the alternate facility instead of for the shipment from the generator to the designated facility. For purposes of subs. (1) or (2) for a shipment forwarding such waste to an alternate facility by a designated facility the generator shall do all of the following:

(a) The copy of the manifest received by the generator shall have the handwritten signature of the owner or operator of the alternate facility in place of the signature of the owner or operator of the designated facility.

(b) The 35, 45, and 60-day timeframes begin the date the waste was accepted by the initial transporter forwarding the hazardous waste shipment from the designated facility to the alternate facility.

NR662.043 Additional reporting. The department may require a generator to furnish additional reports concerning the quantities and disposition of wastes identified or listed in ch. NR 661.

NR 662.044 Recordkeeping for small quantity generators. A small quantity generator is subject to all of the following independent requirements in this subchapter:

(1) Section 662.040 (1) to (4), recordkeeping.

(2) Section 662.042 (2), exception reporting.

(3) Section 662.043, additional reporting.

Subchapter G — Farmers

NR 662.070 Farmers. A farmer disposing of waste pesticides from the farmer's own use that are hazardous wastes is not required to comply with the standards in this chapter or other standards under chs. NR 664, 665, 668, or 670 for those wastes provided the farmer triple rinses each emptied pesticide container in accordance with s. NR 661.0007 (2) (c) and disposes of the pesticide residues on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label.

Subchapter H — Transboundary Movements of Hazardous Waste for Recovery or Disposal

Note: The requirements on which this subchapter is based (40 CFR part 262, subpart H) are administered and enforced by EPA and not the department because the exercise of foreign relations and international commerce powers is reserved to the federal government under the U.S. Constitution. Wisconsin has adopted these requirements into its rules for the convenience of the regulated community. Wisconsin plays a key role in providing EPA with information on whether Wisconsin facilities designated to receive hazardous waste imports are authorized to manage specific wastes and in ensuring facility compliance with all applicable environmental laws and rules. The 40 CFR part 262, subpart H requirements apply to only those wastes identified or listed under the federal program that are subject to federal manifesting requirements.

NR 662.080 Applicability. (1) The requirements of this subchapter apply to transboundary movements of hazardous wastes.

(2) Any person, including exporter, importer, disposal facility operator, or recovery facility operator, who mixes two or more wastes, including hazardous and non-hazardous wastes, or otherwise subjects two or more wastes, including hazardous and non-hazardous wastes, to physical or chemical transformation operations, and thereby creates a new hazardous waste, becomes a generator and assumes all subsequent generator duties under RCRA and any exporter duties, if applicable, under this subchapter.

NR 662.081 Definitions. In addition to the definitions under s. NR 660.10, the following definitions apply to this subchapter:

(1) "Competent authority" means the regulatory authority or authorities of concerned countries having jurisdiction over transboundary movements of wastes.

(2) "Countries concerned" means the countries of export or import and any countries of transit.

(3) "Country of export" means any country from which a transboundary movement of hazardous wastes is planned to be initiated or is initiated.

(4) "Country of import" means any country to which a transboundary movement of hazardous wastes is planned or takes place for the purpose of submitting the wastes to recovery or disposal operations therein.

(5) "Country of transit" means any country other than the country of export or country of import across which a transboundary movement of hazardous wastes is planned or takes place.

(6) "Disposal operations" means activities that do not lead to the possibility of resource recovery, recycling, reclamation, direct re-use or alternate uses, which includes all of the following:

(a) D1 Release or Deposit into or onto land, other than by any of operations D2 to D5 or D12.

(b) D2 Land treatment, such as biodegradation of liquids or sludges in soils.

(c) D3 Deep injection, such as injection into wells, salt domes or naturally occurring repositories.

(d) D4 Surface impoundment, such as placing of liquids or sludges into pits, ponds or lagoons.

(e) D5 Specially engineered landfill, such as placement into lined discrete cells that are capped and isolated from one another and the environment.

(f) D6 Release into a water body other than a sea or ocean, and other than by operation D4.

(g) D7 Release into a sea or ocean, including sea-bed insertion, other than by operation D4.

(h) D8 Biological treatment not specified elsewhere in operations D1 to D12, which results in final compounds or mixtures that are discarded by means of any of operations D1 to D12.

(i) D9 Physical or chemical treatment not specified elsewhere in operations D1 to D12, such as evaporation, drying, calcination, neutralization, or precipitation, which results in final compounds or mixtures that are discarded by means of any of operations D1 to D12.

(j) D10 Incineration on land.

(k) D11 Incineration at sea.

(L) D12 Permanent storage.

(m) D13 Blending or mixing, prior to any of operations D1 to D12.

(n) D14 Repackaging, prior to any of operations D1 to D13.

(o) D15 Interim Storage, prior to any of operations D1 to D12, or DC17 for transboundary movements with Canada only, Interim Storage, prior to any of operations D1 to D12.

(p) DC15 Release, including the venting of compressed or liquefied gases, or treatment, other than by any of operations D1 to D12, for transboundary movements with Canada only.

(q) DC16 Testing of a new technology to dispose of a hazardous waste for transboundary movements with Canada only.

(7) “EPA Acknowledgment of Consent” or “AOC” means the letter EPA sends to the exporter documenting the specific terms of the country of import's consent and the countries of transit's consent. The AOC meets the definition of an export license in U.S. Census Bureau regulations 15 CFR 30.1.

(8) “Export” means the transportation of hazardous waste from a location under the jurisdiction of the United States to a location under the jurisdiction of another country, or a location not under the jurisdiction of any country, for the purposes of recovery or disposal operations therein.

(9) “Exporter,” also known as primary exporter on the RCRA hazardous waste manifest, means the person domiciled in the United States who is required to originate the movement document in accordance with s. NR 662.083 (4) or the manifest for a shipment of hazardous waste in accordance with subch. B, or equivalent state provision, which specifies a foreign receiving facility as the facility to which the hazardous wastes will be sent, or any recognized trader who proposes export of the hazardous wastes for recovery or disposal operations in the country of import.

(10) “Foreign exporter” means the person under the jurisdiction of the country of export who has, or will have at the time the planned transboundary movement commences, possession or other forms of legal control of the hazardous wastes and who proposes shipment of the hazardous wastes to the United States for recovery or disposal operations.

(11) “Foreign importer” means the person to whom possession or other form of legal control of the hazardous waste is assigned at the time the exported hazardous waste is received in the country of import.

(12) “Foreign receiving facility” means a facility which, under the importing country's applicable domestic law, is operating or is authorized to operate in the country of import to receive the hazardous wastes and to perform recovery or disposal operations on them.

(13) “Import” means the transportation of hazardous waste from a location under the jurisdiction of another country to a location under the jurisdiction of the United States for the purposes of recovery or disposal operations therein.

(14) “Importer” means the person to whom possession or other form of legal control of the hazardous waste is assigned at the time the imported hazardous waste is received in the United States.

(15) “OECD area” means all land or marine areas under the national jurisdiction of any OECD member country. When the regulations refer to shipments to or from an OECD member country, this means OECD area.

(16) “OECD” means the Organization for Economic Cooperation and Development.

(17) "OECD member country" means the countries that are members of the OECD and participate in the Amended 2001 OECD Decision.

Note: EPA provides a list of OECD member countries at https://www.epa.gov/hwgenerators/international-agreements-transboundary-shipments-waste.

(18) "Receiving facility" means a U.S. facility which, under RCRA and other applicable domestic laws, is operating or is authorized to operate to receive hazardous wastes and to perform recovery or disposal operations on them.

(19) "Recovery operations" means activities leading to resource recovery, recycling, reclamation, direct re-use or alternative uses, which includes all of the following:

(a) R1 Use as a fuel, other than in direct incineration, or other means to generate energy.

(b) R2 Solvent reclamation/regeneration.

(c) R3 Recycling/reclamation of organic substances that are not used as solvents.

(d) R4 Recycling/reclamation of metals and metal compounds.

(e) R5 Recycling/reclamation of other inorganic materials.

(f) R6 Regeneration of acids or bases.

(g) R7 Recovery of components used for pollution abatement.

(h) R8 Recovery of components used from catalysts.

(i) R9 Used oil re-refining or other reuses of previously used oil.

(j) R10 Land treatment resulting in benefit to agriculture or ecological improvement.

(k) R11 Uses of residual materials obtained from any of the operations numbered R1 through R10 or RC14, for transboundary shipments with Canada only.

(L) R12 Exchange of wastes for submission to any of the operations numbered R1 through R11 or RC14, for transboundary shipments with Canada only.

(m) R13 Accumulation of material intended for any operation numbered R1 through R12 or RC14, for transboundary shipments with Canada only.

(n) RC14 Recovery or regeneration of a substance or use or re-use of a recyclable material, other than by any of operations R1 to R10, for transboundary shipments with Canada only.

(o) RC15 Testing of a new technology to recycle a hazardous recyclable material, for transboundary shipments with Canada only.

(p) RC16 Interim storage prior to any of operations R1 to R11 or RC14, for transboundary shipments with Canada only.

(20) "Transboundary movement" means any movement of hazardous wastes from an area under the national jurisdiction of one country to an area under the national jurisdiction of another country.

NR 662.082 General conditions. (1) SCOPE. The level of control for exports and imports of waste is indicated by assignment of the waste to either a list of wastes subject to the Green control procedures or a list of wastes subject to the Amber control procedures and whether the waste is or is not hazardous waste. The OECD Green and Amber lists are incorporated by reference in 40 CFR 260.11.

(a) *Green list wastes.* 1. Green wastes that are not hazardous wastes are subject to existing controls normally applied to commercial transactions, and are not subject to the requirements of this subchapter.

2. Green wastes that are hazardous wastes are subject to the requirements of this subchapter.

(b) *Amber list wastes.*

Note: Some Amber list wastes are not listed or otherwise identified as hazardous under RCRA, and therefore are not subject to the requirements of this subchapter. Regardless of the status of the waste under RCRA, however, other Federal environmental statutes, such as the Toxic Substances Control Act, restrict certain waste imports or exports. Such restrictions continue to apply with regard to this subchapter.

1. Amber wastes that are hazardous wastes are subject to the requirements of this subchapter. When amber wastes are imported to or exported from a country that does not consider the waste to be hazardous or control the transboundary shipment as a hazardous waste import or export, the following regulations apply:

a. For exports, the exporter shall comply with s. NR 662.083.

b. For imports, the recovery or disposal facility and the importer shall comply with s. NR 662.084.

2. Amber wastes that are not hazardous wastes, but are considered hazardous by the other country are subject to the Amber control procedures in the country that considers the waste

hazardous, and are not subject to the requirements of this subchapter. All responsibilities of the importer or exporter shift to the foreign importer or foreign exporter in the other country that considers the waste hazardous unless the parties make other arrangements through contracts.

(c) *Mixtures of wastes.* 1. A Green waste that is mixed with one or more other Green wastes such that the resulting mixture is not hazardous waste is not subject to the requirements of this subchapter.

Note: The regulated community should note that some countries may require, by domestic law, that mixtures of different Green wastes be subject to the Amber control procedures.

2. A Green waste that is mixed with one or more Amber wastes, in any amount, de minimis or otherwise, or a mixture of two or more Amber wastes, such that the resulting waste mixture is hazardous waste is subject to the requirements of this subchapter.

Note: The regulated community should note that some countries may require, by domestic law, that a mixture of a Green waste and more than a de minimis amount of an Amber waste or a mixture of two or more Amber wastes be subject to the Amber control procedures.

(d) *Wastes not yet assigned to an OECD list.* Wastes not yet assigned to an OECD waste list are eligible for transboundary movements, as follows:

1. If the wastes are hazardous wastes, the wastes are subject to the requirements of this subchapter.

2. If the wastes are not hazardous wastes, the wastes are not subject to the requirements of this subchapter.

(2) GENERAL CONDITIONS APPLICABLE TO TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTE. (a) The hazardous waste shall be destined for recovery or disposal operations at a facility that, under applicable domestic law, is operating or is authorized to operate in the country of import.

(b) The transboundary movement shall be in compliance with applicable international transport agreements.

Note: These international agreements include the 1944 Chicago Convention, 1957 ADR, 1970 ADNR, 1973 and 1978 MARPOL Convention, 1974 SOLAS Convention, 1985 IMDG Code, 1985 COTIF, and the 1985 RID.

(c) Any transit of hazardous waste through one or more countries shall be conducted in compliance with all applicable international and national laws and regulations.

(3) DUTY TO RETURN WASTES SUBJECT TO THE AMBER CONTROL PROCEDURES DURING TRANSIT THROUGH THE UNITED STATES. When a transboundary movement of hazardous wastes transiting the United States and subject to the Amber control procedures does not comply with the requirements of the notification and movement documents or otherwise constitutes illegal shipment, and if alternative arrangements cannot be made to recover or dispose of these wastes in an environmentally sound manner, the waste shall be returned to the country of export. The U.S. transporter shall inform EPA at the mailing address specified in sub. (5) of the need to return the shipment. EPA will then inform the competent authority of the country of export, citing the reasons for returning the waste. The U.S. transporter shall complete the return within 90 days from the time EPA informs the country of export of the need to return the waste, unless informed in writing by EPA of another timeframe agreed to by the concerned countries.

(4) LABORATORY ANALYSIS EXEMPTION. Export or import of a hazardous waste sample is exempt from the requirements of this subchapter if the sample is destined for laboratory analysis to assess its physical or chemical characteristics, or to determine its suitability for recovery or disposal operations, does not exceed 25 kilograms in quantity, is appropriately packaged and labeled, and complies with the conditions under s. NR 661.0004 (4) or (5).

(5) EPA ADDRESS FOR SUBMITTALS BY POSTAL MAIL OR HAND DELIVERY. Submittals required in this subchapter to be made by postal mail or hand delivery shall be sent to the following addresses:

(a) For postal mail delivery, the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, 2254A, Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460.

(b) For hand-delivery, the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, Environmental Protection Agency, William Jefferson Clinton South Bldg., Room 6144, 12th St. and Pennsylvania Ave NW., Washington, DC 20004.

NR 662.083 Exports of hazardous waste. (1) GENERAL EXPORT REQUIREMENTS. Except as provided in pars. (e) and (f), exporters that have received an AOC from EPA before December 31, 2016 are subject to that approval and the requirements listed in the AOC that existed at the time of that approval until such time the approval period expires. All other exports of hazardous waste are prohibited unless:

(a) The exporter complies with the contract requirements specified in sub. (6).

(b) The exporter complies with the notification requirements specified in sub. (2).

(c) The exporter receives an AOC from EPA documenting consent from the countries of import and transit, and original country of export if exporting previously imported hazardous waste.

(d) The exporter ensures compliance with the movement documents requirements specified in sub. (4).

(e) The exporter ensures compliance with the manifest instructions for export shipments specified in sub. (3).

(f) The exporter or a U.S. authorized agent does the following as applicable:

1. For shipments initiated prior to the AES filing compliance date, does one of the following:

a. Submits Electronic Export Information or EEI for each shipment to the Automated Export System or AES or its successor system, under the International Trade Data System or ITDS platform, in accordance with 15 CFR 30.4 (b), and includes the other information required under 15 CFR 30.6 and all of the following items in the EEI: EPA license code; commodity classification code for each hazardous waste per 15 CFR 30.6 (a) (12); EPA consent number for each hazardous waste; country of ultimate destination code per 15 CFR 30.6 (a) (5); date of export per 15 CFR 30.6 (a) (2); RCRA hazardous waste manifest tracking number, if required; quantity of each hazardous waste in shipment and units for reported quantity, if required reporting units established by value for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6 (a) (15); or EPA net quantity for each hazardous waste reported in units of kilograms if solid or in units of liters if liquid, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

b. Complies with a paper-based process by doing the following: attaching a paper copy of the EPA Acknowledgment of Consent international movement document to the manifest, or shipping papers if a manifest is not required, which shall accompany the hazardous waste shipment. For bulk shipment exports by rail or water, the primary exporter shall provide the transporter with the paper documentation of consent which shall accompany the hazardous waste but which need not be attached to the manifest except that for exports by bulk water shipment the primary exporter shall attach the paper documentation of consent to the shipping paper. Providing the transporter with an additional copy of the manifest, and instructing the transporter via mail, email or fax to deliver that copy to the U.S. Customs official at the point the hazardous waste leaves the United States in accordance with s. NR 663.20 (7) (d) 2.

2. For shipments initiated on or after the AES filing compliance date, submits EEI for each shipment to the AES or its successor system, under the ITDS platform, in accordance with 15 CFR 30.4 (b), and includes the other information required under 15 CFR 30.6 and all of the following items in the EEI: EPA license code; commodity classification code for each hazardous waste per 15 CFR 30.6 (a) (12); EPA consent number for each hazardous waste; country of ultimate destination code per 15 CFR 30.6 (a) (5); date of export per 15 CFR 30.6 (a) (2); RCRA hazardous waste manifest tracking number, if required; quantity of each hazardous waste in shipment and units for reported quantity, if required reporting units established by value for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6 (a) (15); or EPA net quantity for each hazardous waste reported in units of kilograms if solid or in units of liters if liquid, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

(2) NOTIFICATIONS—(a) *General notifications.* At least 60 days before the first shipment of hazardous waste is expected to leave the United States, the exporter shall provide notification in English to EPA of the proposed transboundary movement. Notifications shall be submitted electronically using EPA's waste import export tracking system, or its successor system. The notification may cover up to one year of shipments of one or more hazardous wastes being sent to the same recovery or disposal facility, and shall include all of the following information:

1. Exporter name and EPA identification number, address, telephone, fax number, and email address.

2. Foreign receiving facility name, address, telephone, fax number, email address, technologies employed, and the applicable recovery or disposal operations as defined in s. NR 662.081.

3. If not the owner or operator of the foreign receiving facility, then the foreign importer name, address, telephone number, fax number, and email address.

4. Intended transporter and/or their agent; address, telephone number, fax number, and email address.

5. "U.S." as the country of export name, "USA01" as the relevant competent authority code, and the intended U.S. port of exit.

6. The ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and the ports of entry and exit for each country of transit.

7. The ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and port of entry for the country of import.

8. Statement of whether the notification covers a single shipment or multiple shipments.

9. Start and End Dates requested for transboundary movements.

10. Means of transport planned to be used.

11. A description of each hazardous waste, including whether each hazardous waste is regulated universal waste under ch. NR 673, or the state equivalent, spent lead-acid batteries being exported for recovery of lead under subch. G of ch. NR 666, or the state equivalent, or industrial ethyl alcohol being exported for reclamation under s. NR 661.0006 (1) (c) 1.; estimated total quantity of each waste in either metric tons or cubic meters; the applicable RCRA waste codes for each hazardous waste; the applicable OECD waste code from the lists incorporated by reference in 40 CFR 260.11; and the United Nations and U.S. Department of Transportation ID number for each waste.

12. Specification of the recovery or disposal operations as defined in s. NR 662.081.

13. Certification/Declaration signed by the exporter that states: I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally enforceable written contractual obligations have been entered into and that any applicable insurance or other financial guarantee is or shall be in force covering the transboundary movement.

Name:

Signature:

Date:

(b) *Exports to pre-consented recovery facilities in OECD member countries.* If the recovery facility is located in an OECD member country and has been pre-consented by the competent authority of the OECD member country to recover the waste sent by exporters located in other OECD member countries, the notification may cover up to 3 years of shipments. Notifications proposing export to a pre-consented facility in an OECD member country shall include all information listed in sub. (2) (a) 1. to 13. and additionally state that the facility is pre-consented. An exporter shall submit the notification to EPA using the allowable methods listed in sub. (2) (a) at least 10 days before the first shipment is expected to leave the United States.

(c) *Notifications listing interim recycling operations or interim disposal operations.* If the foreign receiving facility listed in sub. (2) (a) 2. will engage in any of the interim recovery operations R12 or R13 or interim disposal operations D13 through D15, or in the case of transboundary movements with Canada, any of the interim recovery operations R12, R13, or RC16, or interim disposal operations D13 to D14, or DC17, the notification submitted under sub. (2) (a) shall also include the final foreign recovery or disposal facility name, address, telephone number, fax number, email address, technologies employed, and which of the applicable recovery or disposal operations R1 through R11 and D1 through D12, or in the case of transboundary movements with Canada, which of the applicable recovery or disposal operations R1 through R11, RC14 to RC15, D1 through D12, and DC15 to DC16 will be employed at the final foreign recovery or disposal facility. The recovery and disposal operations in this paragraph are defined in s. NR 662.081.

(d) *Renotifications.* When the exporter wishes to change any of the information specified on the original notification, including increasing the estimate of the total quantity of hazardous waste specified in the original notification or adding transporters, the exporter shall submit a renotification of the changes to EPA using the allowable methods specified in sub. (2) (a). Any shipment using the requested changes cannot take place until the countries of import and transit consent to the changes and the exporter receives an EPA AOC letter documenting the countries' consents to the changes.

(e) *Disposal operations are not covered under an international agreement.* For cases where the proposed country of import and recovery or disposal operations are not covered under

an international agreement to which both the United States and the country of import are parties, EPA will coordinate with the department of state to provide the complete notification to the country of import and any countries of transit. In all other cases, EPA will provide the notification directly to the country of import and any countries of transit. A notification is complete when EPA receives a notification that EPA determines satisfies the requirements under sub. (2) (a) 1. to 13.

(f) *Consent to the proposed transboundary movements.* When the countries of import and transit consent to the proposed transboundary movements of the hazardous wastes, EPA will forward an EPA AOC letter to the exporter documenting the countries' consents. When any of the countries of import and transit objects to the proposed transboundary movements of the hazardous waste or withdraws a prior consent, EPA will notify the exporter.

(g) *Recycling or disposal operations in a third country.* Export of hazardous wastes for recycling or disposal operations that were originally imported into the United States for recycling or disposal operations in a third country is prohibited unless an exporter in the United States complies with the export requirements specified in s. NR 662.083, including providing notification to EPA in accordance with sub. (2) (a). In addition to listing all required information under sub. (2) (a) 1. to 13., the exporter shall provide the original consent number issued for the initial import of the wastes in the notification, and receive an AOC from EPA documenting the consent of the competent authorities in the new country of import, the original country of export, and any transit countries prior to re-export.

(h) *Additional information.* Upon request by EPA, the exporter shall furnish to EPA any additional information the country of import requests in order to respond to a notification.

(3) RCRA MANIFEST INSTRUCTIONS FOR EXPORT SHIPMENTS. The exporter shall comply with the manifest requirements specified in ss. NR 662.020 to 662.023 except that:

(a) In lieu of the name, site address and EPA ID number of the designated permitted facility, the exporter shall enter the name and site address of the foreign receiving facility.

(b) In the International Shipments block, the exporter shall check the export box and enter the U.S. port of exit, city and state, from the United States.

(c) The exporter shall list the consent number from the AOC for each hazardous waste listed on the manifest, matched to the relevant list number for the hazardous waste from block

9b. If additional space is needed, the exporter should use a continuation sheet of EPA Form 8700-22A.

(d) The exporter may obtain the manifest from any source that is registered with the EPA as a supplier of manifests.

(4) MOVEMENT DOCUMENT REQUIREMENTS FOR EXPORT SHIPMENTS. (a) All exporters shall ensure that a movement document meeting the conditions under par. (b) accompanies each transboundary movement of hazardous wastes from the initiation of the shipment until it reaches the foreign receiving facility, including cases in which the hazardous waste is stored or sorted by the foreign importer prior to shipment to the foreign receiving facility, except as provided in subds. 1. and 2.

1. For shipments of hazardous waste within the United States solely by bulk water shipments, the exporter shall forward the movement document to the last bulk water shipment transporter to handle the hazardous waste in the United States if exported by water.

2. For rail shipments of hazardous waste within the United States that start from the company originating the export shipment, the exporter shall forward the movement document to the next non-rail transporter, if any, or the last rail transporter to handle the hazardous waste in the United States if exported by rail.

(b) The movement document shall include all of the following:

1. The corresponding consent numbers and hazardous waste numbers for the listed hazardous waste from the relevant EPA AOC.

2. The shipment number and the total number of shipments from the EPA AOC.

3. The exporter name and EPA identification number, address, telephone number, fax number, and email address.

4. The foreign receiving facility name, address, telephone number, fax number, email address, technologies employed, and the applicable recovery or disposal operations as defined in s NR 662.081.

5. If not the owner or operator of the foreign receiving facility, then the foreign importer name, address, telephone number, fax number, and email address.

6. A description of each hazardous waste; quantity of each hazardous waste in the shipment; applicable RCRA hazardous waste codes for each hazardous waste; applicable OECD waste code for each hazardous waste from the lists incorporated by reference in 40 CFR 260.11;

and the United Nations and U.S. Department of Transportation ID number for each hazardous waste.

7. The date movement commenced.

8. If not the exporter, then the name, address, telephone number, fax number, and email of the company originating the shipment.

9. The company name, EPA ID number, address, telephone number, fax, and email address of all transporters.

10. Identification, such as license, registered name or registration number, of the means of transport, including types of packaging.

11. Any special precautions to be taken by transporter.

12. A certification or declaration signed and dated by the exporter that the information in the movement document is complete and correct.

13. Appropriate signatures for each custody transfer.

14. Each U.S. person that has physical custody of the hazardous waste from the time the movement commences until it arrives at the foreign receiving facility shall sign the movement document.

15. As part of the contract requirements under sub. (6), the exporter shall require that the foreign receiving facility send a copy of the signed movement document to confirm receipt within 3 working days of shipment delivery to the exporter, to the competent authorities of the countries of import and transit, and for shipments occurring on or after the electronic import-export reporting compliance date, the exporter shall additionally require that the foreign receiving facility send a copy to EPA at the same time using the allowable methods listed in sub. (2) (a).

(5) DUTY TO RETURN OR RE-EXPORT HAZARDOUS WASTES. When a transboundary movement of hazardous wastes cannot be completed in accordance with the terms of the contract or the consents and alternative arrangements cannot be made to recover or dispose of the waste in an environmentally sound manner in the country of import, the exporter shall ensure that the hazardous waste is returned to the United States or re-exported to a third country. If the waste shall be returned, the exporter shall provide for the return of the hazardous waste shipment within 90 days from the time the country of import informs EPA of the need to return

the waste or such other period of time as the concerned countries agree. In all cases, the exporter shall submit an exception report to EPA in accordance with sub. (8).

(6) EXPORT CONTRACT REQUIREMENTS. (a) Exports of hazardous waste are prohibited unless they occur under the terms of a valid written contract, chain of contracts, or equivalent arrangements, such as when movement occurs between parties controlled by the same corporate or legal entity. Contracts or equivalent arrangements shall be executed by the exporter, foreign importer, if different from the foreign receiving facility, and the owner or operator of the foreign receiving facility, and shall specify responsibilities for each. Contracts or equivalent arrangements are valid for the purposes of this section only if persons assuming obligations under the contracts or equivalent arrangements have appropriate legal status to conduct the operations specified in the contract or equivalent arrangements.

(b) Contracts or equivalent arrangements shall specify the name and EPA ID number, where available, of all of the following:

1. The company from where each export shipment of hazardous waste is initiated.
2. Each person who will have physical custody of the hazardous wastes.
3. Each person who will have legal control of the hazardous wastes.
4. The foreign receiving facility.

(c) Contracts or equivalent arrangements shall specify which party to the contract will assume responsibility for alternate management of the hazardous wastes if their disposition cannot be carried out as described in the notification of intent to export. In such cases, contracts shall specify all of the following:

1. That the transporter or foreign receiving facility having actual possession or physical control over the hazardous wastes will immediately inform the exporter, EPA, and either the competent authority of the country of transit or the competent authority of the country of import of the need to make alternate management arrangements.

2. That the person specified in the contract will assume responsibility for the adequate management of the hazardous wastes in compliance with applicable laws and regulations including, if necessary, arranging the return of hazardous wastes and, as the case may be, shall provide the notification for re-export to the competent authority in the country of import and include the equivalent of the information required in sub. (2) (a), the original consent number issued for the initial export of the hazardous wastes in the notification, and obtain consent from

EPA and the competent authorities in the new country of import and any transit countries prior to re-export.

(d) Contracts shall specify that the foreign receiving facility send a copy of the signed movement document to confirm receipt within 3 working days of shipment delivery to the exporter and to the competent authorities of the countries of import and transit. For contracts that will be in effect on or after the electronic import-export reporting compliance date, the contracts shall additionally specify that the foreign receiving facility send a copy to EPA at the same time using the allowable methods listed in sub. (2) (a) on or after that date.

(e) Contracts shall specify that the foreign receiving facility shall send a copy of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the exporter and to the competent authority of the country of import. For contracts that will be in effect on or after the electronic import-export reporting compliance date, the contracts shall additionally specify that the foreign receiving facility send a copy to EPA at the same time using the allowable methods listed in sub. (2) (a) on or after that date.

(f) Contracts shall specify that the foreign importer or the foreign receiving facility that performed interim recycling operations R12, R13, or RC16, or interim disposal operations D13 through D15 or DC17, recovery and disposal operations defined in s. NR 662.081, as appropriate, shall do all of the following:

1. Provide the notification required in sub. (6) (c) 2. prior to any re-export of the hazardous wastes to a final foreign recovery or disposal facility in a third country.

2. Promptly send copies of the confirmation of recovery or disposal that it receives from the final foreign recovery or disposal facility within one year of shipment delivery to the final foreign recovery or disposal facility that performed one of recovery operations R1 through R11, or RC16, or one of disposal operations D1 through D12, DC15 or DC16 to the competent authority of the country of import. For contracts that will be in effect on or after the electronic import-export reporting compliance date, the contracts shall additionally specify that the foreign facility send copies to EPA at the same time using the allowable method listed in sub. (2) (a) on or after that date.

(g) Contracts or equivalent arrangements shall include provisions for financial guarantees, if required by the competent authorities of the country of import and any countries of transit, in accordance with applicable national or international law requirements.

Note: Financial guarantees so required are intended to provide for alternate recycling, disposal or other means of sound management of the wastes in cases where arrangements for the shipment and the recovery operations cannot be carried out as foreseen. The United States does not require such financial guarantees at this time; however, some OECD member countries and other foreign countries do. It is the responsibility of the exporter to ascertain and comply with such requirements. In some cases, persons or facilities located in those OECD member countries or other foreign countries may refuse to enter into the necessary contracts absent specific references or certifications to financial guarantees.

(h) Contracts or equivalent arrangements shall contain provisions requiring each contracting party to comply with all applicable requirements of this subchapter.

(i) Upon request by EPA, U.S. exporters, importers, or recovery facilities shall submit to EPA copies of contracts, chain of contracts, or equivalent arrangements, such as when movement occurs between parties controlled by the same corporate or legal entity.

(7*)* ANNUAL REPORTS. The exporter shall file an annual report with EPA no later than March 1 of each year summarizing the types, quantities, frequency, and ultimate destination of all such hazardous waste exported during the previous calendar year. Prior to one year after the AES filing compliance date, the exporter shall mail or hand-deliver annual reports to EPA using one of the addresses specified in s. NR 662.082 (5), or submit to EPA using the allowable methods specified in sub. (2) (a) if the exporter has electronically filed EPA information in AES, or its successor system, under sub. (1) (f) 1. a. for all shipments made the previous calendar year. Subsequently, the exporter shall submit annual reports to EPA using the allowable methods specified in sub. (2) (a). The annual report shall include all of the following:

(a) The EPA identification number, name, and mailing and site address of the exporter filing the report.

(b) The calendar year covered by the report.

(c) The name and site address of each foreign receiving facility.

(d) By foreign receiving facility, for each hazardous waste exported:

1. A description of the hazardous waste.

2. The applicable EPA hazardous waste codes for each waste.

3. The applicable waste code from the appropriate OECD waste list incorporated by reference in 40 CFR 260.11.

4. The applicable DOT ID number.

5. The name and EPA ID number, where applicable, for each transporter used over the calendar year covered by the report.

6. The consent number under which the hazardous waste was shipped, and for each consent number, the total amount of the hazardous waste and the number of shipments exported during the calendar year covered by the report.

(e) In even numbered years, for each hazardous waste exported, except for hazardous waste produced by exporters of greater than 100 kilograms but less than 1,000 kilograms in a calendar month, and except for hazardous waste for which information was already provided according to s. NR 662.041:

1. A description of the efforts undertaken during the year to reduce the volume and toxicity of the waste generated.

2. A description of the changes in volume and toxicity of the waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984.

(f) A certification signed by the exporter that states: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

(8) EXCEPTION REPORTS. (a) The exporter shall file an exception report with EPA in lieu of the requirements specified in s. NR 662.042, if applicable, if any of the following occurs:

1. The exporter has not received a copy of the RCRA hazardous waste manifest, if applicable, signed by the transporter identifying the point of departure of the hazardous waste from the United States, within 45 days from the date it was accepted by the initial transporter, in which case the exporter shall file the exception report within the next 30 days.

2. The exporter has not received a written confirmation of receipt from the foreign receiving facility in accordance with sub. (4) within 90 days from the date the waste was accepted by the initial transporter in which case the exporter shall file the exception report within the next 30 days.

3. The foreign receiving facility notifies the exporter, or the country of import notifies EPA, of the need to return the shipment to the U.S. or arrange alternate management, in which case the exporter shall file the exception report within 30 days of notification, or one day prior to the date the return shipment commences, whichever is sooner.

(b) Prior to the electronic import-export reporting compliance date, exception reports shall be mailed or hand delivered to EPA using the addresses listed in s. NR 662.082 (5). Subsequently, exception reports shall be submitted to EPA using the allowable methods listed in sub. (2) (a).

(9) RECORDKEEPING. (a) The exporter shall keep the following records and provide them to EPA or the department upon request:

1. A copy of each notification of intent to export and each EPA AOC for a period of at least 3 years from the date the hazardous waste was accepted by the initial transporter.

2. A copy of each annual report for a period of at least 3 years from the due date of the report.

3. A copy of any exception reports and a copy of each confirmation of receipt, or movement document, sent by the foreign receiving facility to the exporter for at least 3 years from the date the hazardous waste was accepted by the initial transporter.

4. A copy of each confirmation of recovery or disposal sent by the foreign receiving facility to the exporter for at least 3 years from the date that the foreign receiving facility completed interim or final processing of the hazardous waste shipment.

5. A copy of each contract or equivalent arrangement established under s. NR 662.085 for at least 3 years from the expiration date of the contract or equivalent arrangement.

(b) An exporter may satisfy these recordkeeping requirements by retaining electronically submitted documents in the exporter's account on EPA's waste import export tracking system, or its successor system, provided that copies are readily available for viewing and production if requested by EPA or any authorized state inspector. No exporter may be held liable for the inability to produce such documents for inspection under this section if the exporter can

demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's waste import export tracking system, or its successor system for which the exporter bears no responsibility.

(c) The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the EPA administrator.

NR 662.084 Imports of hazardous waste. (1) GENERAL IMPORT REQUIREMENTS. (a) With the exception ofpar. (e), an importer of a shipment covered under a consent from EPA to the country of export issued before December 31, 2016 is subject to that approval and the requirements that existed at the time of that approval until such time the approval period expires. Otherwise, any other person who imports hazardous waste from a foreign country into the United States shall comply with the requirements of this chapter and the special requirements of this subchapter.

(b) In cases where the country of export does not require the foreign exporter to submit a notification and obtain consent to the export prior to shipment, the importer shall submit a notification to EPA in accordance with sub. (2).

(c) The importer shall comply with the contract requirements specified in sub. (6).

(d) The importer shall ensure compliance with the movement documents requirements specified in sub. (4).

(e) The importer shall ensure compliance with the manifest instructions for import shipments specified in sub. (3).

(2) NOTIFICATIONS. In cases where the competent authority of the country of export does not regulate the waste as hazardous waste and, thus, does not require the foreign exporter to submit to it a notification proposing export and obtain consent from EPA and the competent authorities for the countries of transit, but EPA does regulate the waste as hazardous waste:

(a) The importer is required to provide notification in English to EPA of the proposed transboundary movement of hazardous waste at least 60 days before the first shipment is expected to depart the country of export. Notifications submitted prior to the electronic import-export reporting compliance date shall be mailed or hand delivered to EPA at the addresses specified in s. NR 662.082 (5). Notifications submitted on or after the electronic import-export reporting compliance date shall be submitted electronically using EPA's waste import export

tracking system, or its successor system. The notification may cover up to one year of shipments of one or more hazardous wastes being sent from the same foreign exporter, and shall include all of the following information:

1. Foreign exporter name, address, telephone number, fax number, and email address.

2. Receiving facility name, EPA ID number, address, telephone number, fax number, email address, technologies employed, and the applicable recovery or disposal operations as defined in s. NR 662.081.

3. If not the owner or operator of the receiving facility, then the importer name, EPA ID number, address, telephone number, fax number, and email address.

4. Intended transporters and/or their agents, with address, telephone number, fax number, and email address.

5. "U.S." as the country of import, "USA01" as the relevant competent authority code, and the intended U.S. ports of entry.

6. The ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and the ports of entry and exit for each country of transit.

7. The ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and port of exit for the country of export.

8. Statement of whether the notification covers a single shipment or multiple shipments.

9. Start and Eend dates requested for transboundary movements.

10. Means of transport planned to be used.

11. Descriptions of each hazardous waste, including whether each hazardous waste is regulated universal waste under ch. NR 673, spent lead-acid batteries being exported for recovery of lead under subch. G of ch. NR 666, or industrial ethyl alcohol being exported for reclamation under s. NR 661.0006 (1) (c) 1.; estimated total quantity of each hazardous waste; the applicable RCRA hazardous waste codes for each hazardous waste; the applicable OECD waste code from the lists incorporated by reference in 40 CFR 260.11; and the United Nations and U.S. department of transportation ID number for each hazardous waste.

12. Specification of the recovery or disposal operations as defined in s. NR 662.081.

13. Certification/Declaration signed by the importer that states: I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally enforceable written contractual obligations have been entered into and that any applicable

insurance or other financial guarantee is or shall be in force covering the transboundary movement.

Name:

Signature:

Date:

Note: The United States does not currently require financial assurance for these waste shipments.

(b) Notifications listing interim recycling operations or interim disposal operations. If the receiving facility listed in sub. (2) (a). will engage in any of the interim recovery operations R12 or R13 or interim disposal operations D13 through D15, the notification submitted according to sub. (2) (a) shall also include the final recovery or disposal facility name, address, telephone number, fax number, email address, technologies employed, and which of the applicable recovery or disposal operations R1 through R11 and D1 through D12, will be employed at the final recovery or disposal facility. The recovery and disposal operations in this paragraph are defined in s. NR 662.081.

(c) When the foreign exporter wishes to change any of the conditions specified on the original notification, including increasing the estimate of the total quantity of hazardous waste specified in the original notification or adding transporters, the importer shall submit a renotification of the changes to EPA using the allowable methods specified in sub. (2) (a). Any shipment using the requested changes cannot take place until EPA and the countries of transit consent to the changes and the importer receives an EPA AOC letter documenting the consents to the changes.

(d) A notification is complete when EPA determines the notification satisfies the requirements under par. (a) 1. to 13.

(e) Where EPA and the countries of transit consent to the proposed transboundary movements of the hazardous wastes, EPA will forward an EPA AOC letter to the importer documenting the countries' consents and EPA's consent. When any of the countries of transit or EPA objects to the proposed transboundary movements of the hazardous waste or withdraws a prior consent, EPA will notify the importer.

(f) Export of hazardous wastes that were originally imported into the United States for recycling or disposal operations is prohibited unless an exporter in the United States complies with the export requirements specified in s. NR 662.083 (2) (g).

(3) RCRA MANIFEST INSTRUCTIONS FOR IMPORT SHIPMENTS. (a) When importing hazardous waste, the importer shall meet all of the requirements under s. NR 662.020 for the manifest except that:

1. In place of the generator's name, address and EPA identification number, the name and address of the foreign generator and the importer's name, address and EPA identification number shall be used.

2. In place of the generator's signature on the certification statement, the importer or the importer's agent shall sign and date the certification and obtain the signature of the initial transporter.

(b) The importer may obtain the manifest form from any source that is registered with the EPA as a supplier of manifests.

(c) In the International Shipments block, the importer shall check the import box and enter the point of entry, city and state, into the United States.

(d) The importer shall provide the transporter with an additional copy of the manifest to be submitted by the receiving facility to EPA in accordance with s. NR 664.0071 (1) (c) and 665.0071 (1) (c).

(e) In lieu of the requirements under s. NR 662.020 (4), where a shipment cannot be delivered for any reason to the receiving facility, the importer shall instruct the transporter in writing via fax, email or mail to do all of the following:

1. Return the hazardous waste to the foreign exporter or designate another facility within the United States.

2. Revise the manifest in accordance with the importer's instructions.

(4) MOVEMENT DOCUMENT REQUIREMENTS FOR IMPORT SHIPMENTS. (a) The importer shall ensure that a movement document meeting the conditions under par. (b) accompanies each transboundary movement of hazardous wastes from the initiation of the shipment in the country of export until it reaches the receiving facility, including cases in which the hazardous waste is stored or sorted by the importer prior to shipment to the receiving facility, except as follows:

1. For shipments of hazardous waste within the United States by water, bulk shipments only, the importer shall forward the movement document to the last water, bulk shipment, transporter to handle the hazardous waste in the United States if imported by water.

2. For rail shipments of hazardous waste within the United States that start from the company originating the export shipment, the importer shall forward the movement document to the next non-rail transporter, if any, or the last rail transporter to handle the hazardous waste in the United States if imported by rail.

(b) The movement document shall include all of the following:

1. The corresponding AOC number and waste number for the listed waste.

2. The shipment number and the total number of shipments under the AOC number.

3. Foreign exporter name, address, telephone number, fax number, and email address.

4. Receiving facility name, EPA ID number, address, telephone number, fax number, email address, technologies employed, and the applicable recovery or disposal operations as defined in s. NR 662.081.

5. If not the owner or operator of the receiving facility, then the importer name, EPA ID number, address, telephone number, fax number, and email address.

6. Descriptions of each hazardous waste, quantity of each hazardous waste in the shipment, applicable RCRA hazardous waste codes for each hazardous waste, the applicable OECD waste code for each hazardous waste from the lists incorporated by reference in 40 CFR 260.11, and the United Nations and U.S. Department of Transportation ID number for each hazardous waste.

7. Date movement commenced.

8. If not the foreign exporter, then the name, address, telephone number, fax number, and email of the foreign company originating the shipment.

9. Company name, EPA ID number, address, telephone number, fax number, and email address of all transporters.

10. Identification, including license, registered name or registration number, of means of transport, including types of packaging.

11. Any special precautions to be taken by transporter.

12. Certification/declaration signed and dated by the foreign exporter that the information in the movement document is complete and correct.

13. Appropriate signatures for each custody transfer.

14. Each person that has physical custody of the waste from the time the movement commences until it arrives at the receiving facility shall sign the movement document.

15. The receiving facility shall send a copy of the signed movement document to confirm receipt within 3 working days of shipment delivery to the foreign exporter, to the competent authorities of the countries of export and transit, and for shipments received on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's waste import export tracking system, or its successor system.

(5) DUTY TO RETURN OR EXPORT HAZARDOUS WASTES. When a transboundary movement of hazardous wastes cannot be completed in accordance with the terms of the contract or the consent, the provisions under sub. (6) (d) apply. If alternative arrangements cannot be made to recover the hazardous waste in an environmentally sound manner in the United States, the hazardous waste shall be returned to the country of export or exported to a third country. The provisions under sub. (2) (f) apply to any hazardous waste shipment to be exported to a third country. If the return shipment will cross any transit country, the return shipment may only occur after EPA provides notification to and obtains consent from the competent authority of the country of transit, and provides a copy of that consent to the importer.

(6) IMPORT CONTRACT REQUIREMENTS. (a) Imports of hazardous waste shall occur under the terms of a valid written contract, chain of contracts, or equivalent arrangements, such as when the movement occurs between parties controlled by the same corporate or legal entity. Such contracts or equivalent arrangements shall be executed by the foreign exporter, importer, and the owner or operator of the receiving facility, and shall specify responsibilities for each. Contracts or equivalent arrangements are valid for the purposes of this section only if persons assuming obligations under the contracts or equivalent arrangements have appropriate legal status to conduct the operations specified in the contract or equivalent arrangements.

(b) Contracts or equivalent arrangements shall specify the name and EPA ID number, where available, of all of the following:

1. The foreign company from where each import shipment of hazardous waste is initiated.

2. Each person who will have physical custody of the hazardous wastes.

3. Each person who will have legal control of the hazardous wastes.

4. The receiving facility.

(c) Contracts or equivalent arrangements shall specify the use of a movement document in accordance with s. NR 662.084 (4).

(d) Contracts or equivalent arrangements shall specify which party to the contract will assume responsibility for alternate management of the hazardous wastes if their disposition cannot be carried out as described in the notification of intent to export submitted by either the foreign exporter or the importer. In such cases, contracts shall specify all of the following:

1. The transporter or receiving facility having actual possession or physical control over the hazardous wastes will immediately inform the foreign exporter and importer, and the competent authority where the shipment is located of the need to arrange alternate management or return.

2. The person specified in the contract will assume responsibility for the adequate management of the hazardous wastes in compliance with applicable laws and regulations including, if necessary, arranging the return of the hazardous wastes and, as the case may be, shall provide the notification for re-export required in s. NR 662.083 (b) (7).

(e) Contracts shall specify that the importer or the receiving facility that performed interim recycling operations R12, R13, or RC16, or interim disposal operations D13 through D15 or DC15 to DC17, as appropriate, will provide the notification required in s. NR 662.083 (2) (g) prior to the re-export of hazardous wastes. The recovery and disposal operations in this paragraph are defined in s. NR 662.081.

(f) Contracts or equivalent arrangements shall include provisions for financial guarantees, if required by the competent authorities of any countries concerned, in accordance with applicable national or international law requirements.

Note: Financial guarantees so required are intended to provide for alternate recycling, disposal or other means of sound management of the wastes in cases where arrangements for the shipment and the recovery operations cannot be carried out as foreseen. The United States does not require such financial guarantees at this time; however, some OECD member countries or other foreign countries do. It is the responsibility of the importer to ascertain and comply with such requirements. In some cases, persons or facilities located in those countries may refuse to

enter into the necessary contracts absent specific references or certifications to financial guarantees.

(g) Contracts or equivalent arrangements shall contain provisions requiring each contracting party to comply with all applicable requirements of this subchapter.

(h) Upon request by EPA, importers or disposal or recovery facilities shall submit to EPA copies of contracts, chain of contracts, or equivalent arrangements, such as when the movement occurs between parties controlled by the same corporate or legal entity.

(7) CONFIRMATION OF RECOVERY OR DISPOSAL. The receiving facility shall do all of the following:

(a) Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export, and for shipments recycled or disposed of on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's waste import export tracking system or its successor system.

(b) If the receiving facility performed any of recovery operations R12, R13, or RC16, or disposal operations D13 through D15, or DC17, the receiving facility shall promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC14 to RC15, or one of disposal operations D1 through D12, or DC15 to DC16, to the competent authority of the country of export, and for confirmations received on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's waste import export tracking system, or its successor system. The recovery and disposal operations in this paragraph are defined in s. NR 662.081.

(8) RECORDKEEPING. (a) The importer shall keep all of the following records and provide them to EPA or the department upon request:

1. A copy of each notification that the importer sends to EPA under sub. (2) (a) and each EPA AOC it receives in response for a period of at least 3 years from the date the hazardous waste was accepted by the initial foreign transporter.

2. A copy of each contract or equivalent arrangement established under sub. (6) for at least 3 years from the expiration date of the contract or equivalent arrangement.

(b) The receiving facility shall keep all of the following records:

1. A copy of each confirmation of receipt, or movement document, that the receiving facility sends to the foreign exporter for at least 3 years from the date it received the hazardous waste.

2. A copy of each confirmation of recovery or disposal that the receiving facility sends to the foreign exporter for at least 3 years from the date that it completed processing the waste shipment.

3. For the receiving facility that performed any of recovery operations R12, R13, or RC16, or disposal operations D13 through D15, or DC17, a copy of each confirmation of recovery or disposal that the final recovery or disposal facility sent to it for at least 3 years from the date that the final recovery or disposal facility completed processing the waste shipment. The recovery and disposal operations in this paragraph are defined in s. NR 662.081.

4. A copy of each contract or equivalent arrangement established under sub. (6) for at least 3 years from the expiration date of the contract or equivalent arrangement.

(c) Importers and receiving facilities may satisfy these recordkeeping requirements by retaining electronically submitted documents in the importer's or receiving facility's account on EPA's waste import export tracking system, or its successor system, provided that copies are readily available for viewing and production if requested by EPA or any authorized state inspector. No importer or receiving facility may be held liable for the inability to produce such documents for inspection under this section if the importer or receiving facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's waste import export tracking system, or its successor system for which the importer or receiving facility bears no responsibility.

(d) The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the EPA administrator.

Subchapter K — Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities

NR 662.200 Definitions: The following definitions apply to this subchapter:

(1) "College or university" means a private or public, post-secondary, degree-granting, academic institution that is accredited by an accrediting agency listed annually by the U.S. department of education.

(2) "Eligible academic entity" means a college or university, or a non-profit research institute that is owned by or has a formal written affiliation agreement with a college or university, or a teaching hospital that is owned by or has a formal written affiliation agreement with a college or university.

(3) "Formal written affiliation agreement" for a non-profit research institute means a written document that establishes a relationship between institutions for the purposes of research or education and is signed by authorized representatives, as defined in s. NR 660.10 (6), from each institution. A relationship on a project-by-project or grant-by-grant basis is not considered a formal written affiliation agreement. A formal written affiliation agreement for a teaching hospital means a master affiliation agreement and program letter of agreement, as defined by the Accreditation Council for Graduate Medical Education, with an accredited medical program or medical school.

(4) "Laboratory" means an area owned by an eligible academic entity where relatively small quantities of chemicals and other substances are used on a non-production basis for teaching or research, or diagnostic purposes at a teaching hospital, and are stored and used in containers that are easily manipulated by one person. Photo laboratories, art studios, and field laboratories are considered laboratories. Areas such as chemical stockrooms and preparatory laboratories that provide a support function to teaching or research laboratories, or diagnostic laboratories at teaching hospitals, are also considered laboratories.

(5) "Laboratory clean-out" means an evaluation of the inventory of chemicals and other materials in a laboratory that are no longer needed or that have expired and the subsequent removal of those chemicals or other unwanted materials from the laboratory. A clean-out may

occur for several reasons. It may be on a routine basis, at the end of a semester or academic year, or as a result of a renovation, relocation, or change in laboratory supervisor or occupant.

Note: A regularly scheduled removal of unwanted material as required under s. NR 662.208 does not qualify as a laboratory clean-out.

(6) "Laboratory worker" means a person who handles chemicals or unwanted material in a laboratory and may include faculty, staff, post-doctoral fellows, interns, researchers, technicians, supervisors or managers, and principal investigators. A person does not need to be paid or otherwise compensated for his or her work in the laboratory to be considered a laboratory worker. Undergraduate and graduate students in a supervised classroom setting are not laboratory workers.

(7) "Non-profit research institute" means an organization that conducts research as its primary function and files as a non-profit organization under the tax code of 26 USC 501 (c) (3).

(8) "Reactive acutely hazardous unwanted material" means an unwanted material that is one of the acutely hazardous commercial chemical products listed in s. NR 661.0033 (5) for reactivity.

(9) "Teaching hospital" means a hospital that trains students to become physicians, nurses or other health or laboratory personnel.

(10) "Trained professional" means a person who has completed the applicable RCRA training requirements under s. NR 662.017 for large quantity generators, or is knowledgeable about normal operations and emergencies in accordance with s. NR 662.016 for small quantity generators and very small quantity generators. A trained professional may be an employee of the eligible academic entity or may be a contractor or vendor who meets the requisite training requirements.

(11) **"**Unwanted material" means any chemical, mixtures of chemicals, products of experiments or other material from a laboratory that is no longer needed, wanted or usable in the laboratory and that is destined for hazardous waste determination by a trained professional. Unwanted materials include reactive acutely hazardous unwanted materials and materials that may eventually be determined not to be solid waste under s. NR 661.0002, or a hazardous waste under s. NR 661.0003. If an eligible academic entity elects to use another equally effective term in lieu of "unwanted material," as allowed under s. NR 662.206 (1) (a) 1., the equally effective

term has the same meaning and is subject to the same requirements as "unwanted material" under this subchapter.

(12) **"**Working container" means a container that is 2 gallons or less, that is in use at a laboratory bench, hood, or other work station, to collect unwanted material from a laboratory experiment or procedure.

NR 662.201 Applicability of this subchapter. (1) LARGE QUANTITY GENERATORS AND SMALL QUANTITY GENERATORS. This subchapter provides alternative requirements to the requirements specified in ss. NR 662.011 and 662.015 for the hazardous waste determination and accumulation of hazardous waste in laboratories owned by eligible academic entities that choose to be subject to this subchapter, provided that they complete the notification requirements under s. NR 662.203.

(2) VERY SMALL QUANTITY GENERATORS. This subchapter provides alternative requirements to the conditional exemption specified in s. NR 662.014 for the accumulation of hazardous waste in laboratories owned by eligible academic entities that choose to be subject to this subchapter, provided that they complete the notification requirements under s. NR 662.203.

NR 662.202 This subchapter is optional. (1) LARGE QUANTITY GENERATORS AND SMALL QUANTITY GENERATORS. An eligible academic entity has the option of complying with this subchapter with respect to its laboratories, as an alternative to complying with the requirements under ss. NR 662.011 and 662.015.

(2) VERY SMALL QUANTITY GENERATORS. An eligible academic entity has the option of complying with this subchapter with respect to laboratories, as an alternative to complying with the conditional exemption under s. NR 662.014.

NR 662.203 How an eligible academic entity indicates it will be subject to the requirements of this subchapter. (1) An eligible academic entity shall notify the department in writing, using the RCRA Subtitle C site identification form EPA form 8700-12, that it is electing to be subject to the requirements of this subchapter for all the laboratories owned by the eligible academic entity under the same EPA identification number. An eligible academic entity that is a very small quantity generator and does not have an EPA identification number shall notify the

department that it is electing to be subject to the requirements of this subchapter for all the laboratories owned by the eligible academic entity that are on-site, as defined in s. NR 660.10 (85). An eligible academic entity shall submit a separate site identification form for each EPA identification number, or site, for very small quantity generators, that is electing to be subject to the requirements of this subchapter, and shall submit the site identification form before it begins operating under this subchapter.

(2) When submitting the site identification form, the eligible academic entity shall, at a minimum, complete all of the following fields on the form:

(a) Reason for submittal.

(b) Site EPA identification number, except for very small quantity generators.

(c) Site name.

(d) Site location information.

(e) Site land type.

(f) North American Industry Classification System or NAICS code for the site.

(g) Site mailing address.

(h) Site contact person.

(i) Operator and legal owner of the site.

(j) Type of regulated waste activity.

(k) Certification.

(3) An eligible academic entity shall keep a copy of the notification on file at the eligible academic entity for as long as its laboratories are subject to this subchapter.

(4) A teaching hospital that is not owned by a college or university shall keep a copy of its formal written affiliation agreement with a college or university on file at the teaching hospital for as long as its laboratories are subject to this subchapter.

(5) A non-profit research institute that is not owned by a college or university shall keep a copy of its formal written affiliation agreement with a college or university on file at the non-profit research institute for as long as its laboratories are subject to this subchapter.

NR 662.204 How an eligible academic entity indicates it will withdraw from the requirements of this subchapter. (1) An eligible academic entity shall notify the department in writing, using the RCRA Subtitle C site identification form EPA form 8700-12, that it is

electing to no longer be subject to the requirements of this subchapter for all the laboratories owned by the eligible academic entity under the same EPA identification number and that it will comply with the requirements under ss. NR 662.011 and 662.015 for small quantity generators and large quantity generators. An eligible academic entity that is a very small quantity generator and does not have an EPA identification number shall notify the department that it is withdrawing from the requirements of this subchapter for all the laboratories owned by the eligible academic entity that are on-site and that it will comply with the conditional exemption specified in s. NR 662.014. An eligible academic entity shall submit a separate site identification form for each EPA identification number, or site, for very small quantity generators, that is withdrawing from the requirements of this subchapter and shall submit the site identification form before it begins operating under the standards specified in ss. NR 662.011 and 662.015 for small quantity generators and large quantity generators or s. NR 662.014 for very small quantity generators.

(2) When submitting the site identification form, the eligible academic entity shall, at a minimum, complete all of the following fields on the form:

(a) Reason for submittal.

(b) Site EPA identification number, except for conditionally exempt small quantity generators.

(c) Site name.

(d) Site location information.

(e) Site land type.

(f) North American Industry Classification System or NAICS code for the site.

(g) Site mailing address.

(h) Site contact person.

(i) Operator and legal owner of the site.

(j) Type of regulated waste activity.

(k) Certification.

(3) An eligible academic entity shall keep a copy of the withdrawal notice on file at the eligible academic entity for 3 years from the date of the notification.

NR 662.205 Summary of the requirements of this subchapter. An eligible academic entity that chooses to be subject to this subchapter is not required to have an interim or operating license issued under ch. NR 670 for the accumulation of unwanted material and hazardous waste in its laboratories, provided the laboratories comply with the provisions of this subchapter and the eligible academic entity has a laboratory management plan or LMP in accordance with s. NR 662.214 that describes how the laboratories owned by the eligible academic entity will comply with the requirements of this subchapter.

NR 662.206 Labeling and management standards for containers of unwanted material in the laboratory. An eligible academic entity shall manage containers of unwanted material while in the laboratory in accordance with the requirements in this section.

(1) LABELING. And eligible academic entity shall label unwanted material as follows:

(a) All of the following information shall be affixed or attached to the container:

1. The words "unwanted material" or another equally effective term that is to be used consistently by the eligible academic entity and that is identified in part I of the laboratory management plan.

2. Sufficient information to alert emergency responders to the contents of the container. Examples of information that would be sufficient to alert emergency responders to the contents of the container include:

a. The name of the chemical.

b. The type or class of chemical, such as organic solvents or halogenated organic solvents.

(b) The following information may be affixed or attached to the container, but shall at a minimum be associated with the container:

1. The date that the unwanted material first began accumulating in the container.

2. Information sufficient to allow a trained professional to properly identify whether an unwanted material is a solid or hazardous waste and to assign the proper hazardous waste code, under s. NR 662.011. Examples of information that would allow a trained professional to properly identify whether an unwanted material is a solid or hazardous waste include:

a. The name and description of the chemical contents or composition of the unwanted material, or, if known, the product of the chemical reaction.

b. Whether the unwanted material has been used or is unused.

c. A description of the manner in which the chemical was produced or processed, if applicable.

(2) MANAGEMENT OF CONTAINERS IN THE LABORATORY. An eligible academic entity shall properly manage containers of unwanted material in the laboratory to assure safe storage of the unwanted material, to prevent leaks, spills, emissions to the air, adverse chemical reactions, and dangerous situations that may result in harm to human health or the environment. Proper container management shall include all of the following:

(a) Containers are maintained and kept in good condition and damaged containers are replaced, overpacked, or repaired.

(b) Containers are compatible with their contents to avoid reactions between the contents and the container; and are made of, or lined with, material that is compatible with the unwanted material so that the container's integrity is not impaired.

(c) Containers shall be kept closed at all times, except for any of the following:

1. When adding, removing or bulking unwanted material.

2. A working container may be open until the end of the procedure or work shift, or until it is full, whichever comes first, at which time the working container shall either be closed or the contents emptied into a separate container that is then closed.

3. When venting of a container is necessary under any of the following conditions:

a. For the proper operation of laboratory equipment, such as with in-line collection of unwanted materials from high performance liquid chromatographs.

b. To prevent dangerous situations, such as build-up of extreme pressure.

NR 662.207 Training. An eligible academic entity shall provide training to all individuals working in a laboratory at the eligible academic entity and maintain documentation, as follows:

(1) Training for laboratory workers and students shall be commensurate with their duties so they understand the requirements in this subchapter and can implement them.

(2) The required training under this subsection may include any of the following:

(a) Instruction by the professor or laboratory manager before or during an experiment.

(b) Formal classroom training.

(c) Electronic or written training.

(d) On-the-job training.

(e) Written or oral exams.

(3) An eligible academic entity that is a large quantity generator shall maintain documentation for the durations specified in s. NR 665.16 (5) demonstrating training for all laboratory workers that is sufficient to determine whether laboratory workers have been trained. Examples of documentation demonstrating training include:

(a) Sign-in or attendance sheet for training session.

(b) Syllabus for training session.

(c) Certificate of training completion.

(d) Test results.

(4) A trained professional shall do all of the following:

(a) Accompany the transfer of unwanted material and hazardous waste when the unwanted material and hazardous waste is removed from the laboratory.

(b) Make the hazardous waste determination, according to s. NR 662.011(1) to (4), for unwanted material.

NR 662.208 Removing containers of unwanted material from the laboratory. (1) Containers of unwanted material shall be removed on a regular schedule. An eligible academic entity shall comply with any of the following:

(a) Remove all containers of unwanted material from each laboratory on a regular interval, not to exceed 12 months.

(b) Remove containers of unwanted material from each laboratory within 12 months of each container's accumulation start date.

(2) The eligible academic entity shall specify in part I of its laboratory management plan whether it will comply with sub. (1) (a) or (b) for the regular removal of unwanted material from its laboratories.

(3) The eligible academic entity shall specify in part II of its laboratory management plan how it will comply with sub. (1) (a) or (b) and develop a schedule for regular removals of unwanted material from its laboratories.

(4) An eligible academic entity shall remove containers of unwanted material when volumes are exceeded, using any of the following procedures that are applicable:

(a) If a laboratory accumulates a total volume of unwanted material, including reactive acutely hazardous unwanted material, in excess of 55 gallons before the regularly scheduled removal, the eligible academic entity shall ensure that all containers of unwanted material in the laboratory, including reactive acutely hazardous unwanted material, are:

1. Marked on the label that is associated with the container or on the label that is affixed or attached to the container with the date that 55 gallons is exceeded.

2. Removed from the laboratory within 10 calendar days of the date that 55 gallons was exceeded, or at the next regularly scheduled removal, whichever comes first.

(b) If a laboratory accumulates more than 1 quart of liquid reactive acutely hazardous unwanted material or more than 1 kg of solid reactive acutely hazardous unwanted material before the regularly scheduled removal, then the eligible academic entity shall ensure that all containers of reactive acutely hazardous unwanted material are:

1. Marked on the label that is associated with the container or on the label that is affixed or attached to the container with the date that 1 quart or 1 kg is exceeded.

2. Removed from the laboratory within 10 calendar days of the date that 1 quart or 1 kg was exceeded, or at the next regularly scheduled removal, whichever comes first.

NR 662.209 Where and when to make the hazardous waste determination and where to send containers of unwanted material upon removal from the laboratory. (1) LARGE QUANTITY GENERATORS AND SMALL QUANTITY GENERATORS. An eligible academic entity shall ensure that a trained professional makes a hazardous waste determination, according to s. NR 662.011, for unwanted material in any of the following areas:

(a) In the laboratory before the unwanted material is removed from the laboratory, in accordance with s. NR 662.210.

(b) Within 4 calendar days of arriving at an on-site central accumulation area, in accordance with s. NR 662.211.

(c) Within 4 calendar days of arriving at an on-site interim status or permitted treatment, storage, or disposal facility, in accordance with s. NR 662.212.

(2) VERY SMALL QUANTITY GENERATORS. An eligible academic entity shall ensure that a trained professional makes a hazardous waste determination, according to s. NR 662.011(1) to (4), for unwanted material in the laboratory before the unwanted material is removed from the laboratory, in accordance with s. NR 662.210.

NR 662.210 Making the hazardous waste determination in the laboratory before the unwanted material is removed from the laboratory. If an eligible academic entity makes the hazardous waste determination, according to s. NR 662.011 for unwanted material in the laboratory, it shall comply with all of the following:

(1) A trained professional shall make the hazardous waste determination, according to s. NR 662.011 (1) to (4), before the unwanted material is removed from the laboratory.

(2) If an unwanted material is a hazardous waste, the eligible academic entity shall do all of the following:

(a) Write the words "hazardous waste" on the container label that is affixed or attached to the container before the hazardous waste may be removed from the laboratory.

(b) Write the appropriate hazardous waste code on the label that is associated with the container or on the label that is affixed or attached to the container before the hazardous waste is transported off-site.

(c) Count the hazardous waste toward the eligible academic entity's generator category, according to s. NR 662.013, in the calendar month that the hazardous waste determination was made.

(3) A trained professional shall accompany all hazardous waste that is transferred from the laboratory to an on-site central accumulation area or on-site interim status or permitted treatment, storage, or disposal facility.

(4) When hazardous waste is removed from the laboratory, do any of the following that are applicable:

(a) A Large quantity generators and small quantity generators shall ensure the hazardous waste is taken directly from the laboratory to an on-site central accumulation area, or on-site interim status or permitted treatment, storage, or disposal facility, or transported off-site.

(b) A very small quantity generator shall ensure the hazardous waste is taken directly from the laboratory to any of the types of facilities listed in s. NR 662.014.

(5) An unwanted material that is a hazardous waste is subject to all applicable hazardous waste regulations when it is removed from the laboratory.

NR 662.211 Making the hazardous waste determination at an on-site central accumulation area. If an eligible academic entity makes the hazardous waste determination according to s. NR 662.011 for unwanted material at an on-site central accumulation area, it shall comply with all of the following:

(1) A trained professional shall accompany all unwanted material that is transferred from the laboratory to an on-site central accumulation area.

(2) All unwanted material removed from the laboratory shall be taken directly from the laboratory to the on-site central accumulation area.

(3) The unwanted material becomes subject to the generator accumulation regulations under s. NR 662.016 for small quantity generators or s. NR 662.017 for large quantity generators as soon as it arrives in the central accumulation area, except for the “hazardous waste” labeling conditions under ss. NR 662.016 (2) (f) and 662.017 (1) (e).

(4) A trained professional shall determine, according to s. NR 662.011(1) to (4), if the unwanted material is a hazardous waste within 4 calendar days of the unwanted materials' arrival at the on-site central accumulation area.

(5) If the unwanted material is a hazardous waste, the eligible academic entity shall do all of the following:

(a) Write the words “hazardous waste” on the container label that is affixed or attached to the container within 4 calendar days of arriving at the on-site central accumulation area and before the hazardous waste may be removed from the on-site central accumulation area.

(b) Write the appropriate hazardous waste code on the container label that is associated with the container or on the label that is affixed or attached to the container before the hazardous waste may be treated or disposed of on-site or transported off-site.

(c) Count the hazardous waste toward the eligible academic entity's generator category, according to s. NR 662.013 in the calendar month that the hazardous waste determination was made.

(d) Manage the hazardous waste according to all applicable hazardous waste regulations.

NR 662.212 Making the hazardous waste determination at an on-site interim status or permitted treatment, storage or disposal facility. If an eligible academic entity makes the hazardous waste determination, according to s. NR 662.011, for unwanted material at an on-site interim status or permitted treatment, storage, or disposal facility, it shall comply with all of the following:

(1) A trained professional shall accompany all unwanted material that is transferred from the laboratory to an on-site licensed or interim licensed treatment, storage, or disposal facility.

(2) All unwanted material removed from the laboratory shall be taken directly from the laboratory to the on-site licensed or interim licensed treatment, storage, or disposal facility.

(3) The unwanted material becomes subject to the terms of the eligible academic entity's hazardous waste operating license or interim license as soon as it arrives in the on-site treatment, storage, or disposal facility.

(4) A trained professional shall determine, according to s. NR 662.011 (1) to (4), if the unwanted material is a hazardous waste within 4 calendar days of the unwanted materials' arrival at the on-site licensed or interim licensed treatment, storage, or disposal facility.

(5) If the unwanted material is a hazardous waste, the eligible academic entity shall do all of the following:

(a) Write the words "hazardous waste" on the container label that is affixed or attached to the container within 4 calendar days of the hazardous waste arriving at the on-site licensed or interim licensed treatment, storage, or disposal facility and before the hazardous waste may be removed from the on-site licensed or interim licensed treatment, storage, or disposal facility.

(b) Write the appropriate hazardous waste code on the container label that is associated with the container or on the label that is affixed or attached to the container before the hazardous waste may be treated or disposed of on-site or transported off-site.

(c) Count the hazardous waste toward the eligible academic entity's generator category, according to s. NR 662.13 (3) and (4) in the calendar month that the hazardous waste determination was made.

(d) Manage the hazardous waste according to all applicable hazardous waste regulations.

NR 662.213 Laboratory clean-outs. (1) One time per 12 month period for each laboratory, an eligible academic entity may opt to conduct a laboratory clean-out that is subject to all the applicable requirements of this subchapter, except that:

(a) If the volume of unwanted material in the laboratory exceeds 55 gallons, or 1 quart of liquid reactive acutely hazardous unwanted material, or 1 kg of solid reactive acutely hazardous unwanted material, the eligible academic entity is not required to remove all unwanted materials from the laboratory within 10 calendar days of exceeding 55 gallons, or 1 quart of liquid reactive acutely hazardous unwanted material, or 1 kg or solid reactive acutely hazardous unwanted material, as required under s. NR 662.208. Instead, the eligible academic entity shall remove all unwanted materials from the laboratory within 30 calendar days from the start of the laboratory clean-out.

(b) For the purposes of on-site accumulation, an eligible academic entity is not required to count a hazardous waste that is an unused commercial chemical product that is listed in subch. D of ch. NR 661 or a hazardous waste exhibiting one or more characteristics listed in subch. C of ch. NR 661 that is generated solely during the laboratory clean-out toward its hazardous waste generator category, according to s. NR 662.013. An unwanted material that is generated prior to the beginning of the laboratory clean-out and is still in the laboratory at the time the laboratory clean-out commences shall be counted toward the hazardous waste generator category, according to s. NR 662.013, if it is determined to be hazardous waste.

(c) For the purposes of off-site management, an eligible academic entity shall count all its hazardous waste, regardless of whether the hazardous waste was counted toward generator category under par. (b), and if it generates more than 1 kg/month of acute hazardous waste or more than 100 kg/month of non-acute hazardous waste, the hazardous waste is subject to all applicable hazardous waste regulations when it is transported off-site.

(d) An eligible academic entity shall document the activities of the laboratory clean-out. The documentation shall, at a minimum, identify the laboratory being cleaned out, the date the laboratory clean-out begins and ends, and the volume of hazardous waste generated during the laboratory clean-out. The eligible academic entity shall maintain the records for a period of 3 years from the date the clean-out ends.

(2) For all other laboratory clean-outs conducted during the same 12-month period, an eligible academic entity is subject to all the applicable requirements of this subchapter, including all of the following:

(a) The requirement to remove all unwanted materials from the laboratory within 10 calendar days of exceeding 55 gallons, or 1 quart of reactive acutely hazardous unwanted material, as required under s. NR 662.208.

(b) The requirement to count all hazardous waste, including unused hazardous waste, generated during the laboratory clean-out toward its hazardous waste generator category, according to s. NR 662.013.

NR 662.214 Laboratory management plan. An eligible academic entity shall develop and retain a written laboratory management plan or revise an existing written plan. The laboratory management plan is a site-specific document that describes how the eligible academic entity will manage unwanted materials in compliance with this subchapter. An eligible academic entity may write one laboratory management plan for all the laboratories owned by the eligible academic entity that have opted into this subchapter, even if the laboratories are located at sites with different EPA identification numbers. The laboratory management plan shall contain two parts with a total of 9 elements as identified in subs. (1) and (2).

(1) The eligible academic entity shall implement and comply with the specific provisions of part I of its laboratory management plan. In part I of its laboratory management plan, an eligible academic entity shall do all of the following:

(a) Describe procedures for container labeling in accordance with s. NR 662.206 (1), including:

1. Identifying whether the eligible academic entity will use the term "unwanted material" on the containers in the laboratory. If not, identify an equally effective term that will be used in lieu of "unwanted material" and consistently by the eligible academic entity. The equally effective term, if used, has the same meaning and is subject to the same requirements as "unwanted material."

2. Identifying the manner in which information that is "associated with the container" will be imparted.

(b) Identify whether the eligible academic entity will comply with s. NR 662.208 (1) (a) or (b) for regularly scheduled removals of unwanted material from the laboratory.

(2) The specific actions taken by an eligible academic entity to implement each element in part II of its laboratory management plan may vary from the procedures described in the eligible academic entity's laboratory management plan without constituting a violation of this subchapter. An eligible academic entity may include additional elements and best management practices in part II of its laboratory management plan if it chooses. In part II of its laboratory management plan, an eligible academic entity shall do all of the following:

(a) Describe its intended best practices for container labeling and management, including how the eligible academic entity will manage containers used for in-line collection of unwanted materials, such as with high performance liquid chromatographs and other laboratory equipment. See the required standards specified in s. NR 662.206.

(b) Describe its intended best practices for providing training for laboratory workers and students commensurate with their duties. See the required standards specified in s. NR 662.207 (1).

(c) Describe its intended best practices for providing training to ensure safe on-site transfers of unwanted material and hazardous waste by trained professionals. See the required standards specified in s. NR 662.207 (4) (a).

(d) Describe its intended best practices for removing unwanted material from the laboratory, including all of the following:

1. For regularly scheduled removals. Develop a regular schedule for identifying and removing unwanted materials from its laboratories. See the required standards specified in s. NR 662.208 (1) (a) and (b).

2. For removals when maximum volumes are exceeded, include all of the following information:

a. Describe its intended best practices for removing unwanted materials from the laboratory within 10 calendar days when unwanted materials have exceeded their maximum volumes. See the required standards specified in s. NR 662.208 (4).

b. Describe its intended best practices for communicating that unwanted materials have exceeded their maximum volumes.

(e) Describe its intended best practices for making hazardous waste determinations, including specifying the duties of the individuals involved in the process. See the required standards specified in ss. NR 662.011(1) to (4) and 662.209 to 662.212.

(f) Describe its intended best practices for laboratory clean-outs, if the eligible academic entity plans to use the incentives for laboratory clean-outs provided in s. NR 662.213, including all of the following:

1. Procedures for conducting laboratory clean-outs. See the required standards specified in s. NR 662.213 (1) (a) to (c).

2. Procedures for documenting laboratory clean-outs. See the required standards specified in s. NR 662.213 (1) (d).

(g) Describe its intended best practices for emergency prevention, including all of the following:

1. Procedures for emergency prevention, notification, and response, appropriate to the hazards in the laboratory.

2. A list of chemicals that the eligible academic entity has, or is likely to have, that become more dangerous when they exceed their expiration date or as they degrade.

3. Procedures to safely dispose of chemicals that become more dangerous when they exceed their expiration date or as they degrade.

4. Procedures for the timely characterization of unknown chemicals.

(3) An eligible academic entity shall make its laboratory management plan available to laboratory workers, students, or any others at the eligible academic entity who request it.

(4) An eligible academic entity shall review and revise its laboratory management plan, as needed.

NR 662.215 Unwanted material that is not solid or hazardous waste. (1) If an unwanted material at an eligible academic entity does not meet the definition of solid waste specified in s. NR 661.0002, it is no longer subject to this subchapter or to the RCRA hazardous waste regulations.

(2) If an unwanted material at an eligible academic entity does not meet the definition of hazardous waste specified in s. NR 661.0003, it is no longer subject to this subchapter or to the

RCRA hazardous waste regulations, but shall be managed in compliance with any other applicable regulations or conditions.

NR 662.216 Non-laboratory hazardous waste generated at an eligible academic entity. An eligible academic entity that generates hazardous waste outside of a laboratory is not eligible to manage that hazardous waste under this subchapter and remains subject to all of the following:

(1) Remains subject to the generator requirements of ss. NR 662.011 and 662.015 for large quantity generators and small quantity generators if the hazardous waste is managed in a satellite accumulation area, and all other applicable generator requirements of ch. NR 662, with respect to that hazardous waste.

(2) Remains subject to the conditional exemption under s. NR 662.014 for very small quantity generators, with respect to that hazardous waste.

Subchapter L — Alternative Standards for Episodic Generation

NR 662.230 Applicability. This subchapter is applicable to very small quantity generators and small quantity generators as defined in s. NR 660.10.

NR 662.231 Definitions. In addition to the definitions set forth under s. NR 660.10, the following definitions apply to this subchapter:

(1) "Episodic event" means an activity or activities, either planned or unplanned, that does not normally occur during generator operations, resulting in an increase in the generation of hazardous wastes that exceeds the calendar month quantity limits for the generator's usual category.

(2) "Planned episodic event" means an episodic event that the generator planned and prepared for, including regular maintenance, tank cleanouts, short-term projects, and removal of excess chemical inventory

(3) "Unplanned episodic event" means an episodic event that the generator did not plan or reasonably did not expect to occur, including production process upsets, product recalls, accidental spills, or acts of nature.

NR 662.232 Conditions for a generator managing hazardous waste from an episodic event. (1) VERY SMALL QUANTITY GENERATOR. A very small quantity generator may maintain its existing generator category for hazardous waste generated during an episodic event provided that the generator complies with all of the following:

(a) The very small quantity generator is limited to one episodic event per calendar year, unless a petition is granted under s. NR 662.233

(b) The very small quantity generator shall notify the department no later than 30 calendar days prior to initiating a planned episodic event using EPA Form 8700-12. In the event of an unplanned episodic event, the generator shall notify the department within 72 hours of the unplanned event via phone, email, or fax and subsequently submit EPA Form 8700-12. The generator's notification shall include the start date and end date of the episodic event, the reason for the episodic event, types and estimated quantities of hazardous waste expected to be generated as a result of the episodic event, and shall identify a facility contact and emergency coordinator with 24-hour telephone access to discuss the notification submittal or respond to an emergency in compliance with s. NR 662.016 (2) (i) 1.

(c) The very small quantity generator shall have an EPA identification number or obtain an EPA identification number using EPA Form 8700-12.

(d) A very small quantity generator is prohibited from accumulating hazardous waste generated from an episodic event on drip pads and in containment buildings. When accumulating hazardous waste in containers and tanks the following conditions apply:

1. A very small quantity generator accumulating in containers shall mark or label its containers with all of the following:

a. The words "Episodic Hazardous Waste."

b. An indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical

hazard label consistent with the National Fire Protection Association 704 label, incorporated into s. SPS 314.001 (1) (a)."

c. The date the episodic event began, clearly visible for inspection on each container.

2. A very small quantity generator accumulating episodic hazardous waste in tanks shall do all of the following:

a. Mark or label the tanks with the words "Episodic Hazardous Waste."

b. Mark or label the tanks with an indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association 704 label, incorporated into s. SPS 314.001 (1) (a).

c. Use inventory logs, monitoring equipment or other records to identify the date upon which each episodic event begins.

d. Keep inventory logs or records with the information specified in subd. c. on-site and available for inspection for at least 3 years from the end date of the episodic event.

3. Hazardous waste shall be managed in a manner that minimizes the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituents to the air, soil, or water, including all of the following conditions:

a. Containers shall be in good condition and compatible with the hazardous waste being accumulated therein. Containers shall be kept closed except to add or remove waste.

b. Tanks shall be in good condition and compatible with the hazardous waste accumulated therein. Tanks shall have procedures in place to prevent overflow. Tanks shall be inspected at least once each operating day to ensure all applicable discharge control equipment, such as waste feed cutoff systems, bypass systems, and drainage systems are in good working order and to ensure the tank is operated according to its design by reviewing the data gathered from monitoring equipment such as pressure and temperature gauges from the inspection.

Note: Examples of preventing a tank overflow include high level alarms, an automatic waste feed cutoff system, or a bypass system to a standby tank when hazardous waste is continuously fed into the tank.

(e) The very small quantity generator shall comply with the hazardous waste manifest provisions of subch. B when it sends its episodic event hazardous waste off-site to a designated facility, as defined in s. NR 660.10 (21).

(f) The very small quantity generator shall manifest and send its hazardous waste generated from the episodic event to a designated facility, as defined in s. NR 660.10 (21), within 60 days of the start of the event.

(g) A vry small quantity generator shall maintain all of the following records for 3 years from the end date of the episodic event:

1. Beginning and end dates of the episodic event.

2. A description of the episodic event.

3. A description of the types and quantities of hazardous wastes generated during the event.

4. A description of how the hazardous waste was managed as well as the name of the RCRA-designated facility that received the hazardous waste.

5. The name of the hazardous waste transporter.

6. An approval letter from the department if the generator petitioned to conduct one additional episodic event per calendar year.

(2) SMALL QUANTITY GENERATORS. A small quantity generator may maintain its existing generator category during an episodic event provided that the generator complies with all of the following conditions:

(a) The small quantity generator is limited to one episodic event per calendar year unless a petition is granted under s. NR 662.233.

(b) The small quantity generator shall notify the department no later than 30 calendar days prior to initiating a planned episodic event using EPA Form 8700-12. In the event of an unplanned episodic event, the small quantity generator shall notify the department within 72 hours of the unplanned event via phone, email, or fax, and subsequently submit EPA Form 8700-12. The generator's notification shall include the start date and end date of the episodic event and the reason for the episodic event, types and estimated quantities of hazardous wastes

expected to be generated as a result of the episodic event, and identify a facility contact and emergency coordinator with 24-hour telephone access to discuss the notification submittal or respond to emergency.

(c) The small quantity generator shall have an EPA identification number or obtain an EPA identification number using EPA Form 8700-12.

(d) A small quantity generator is prohibited from accumulating hazardous wastes generated from an episodic event waste on drip pads and in containment buildings. When accumulating hazardous waste generated from an episodic event in containers and tanks, all of the following conditions apply:

1. A small quantity generator accumulating episodic hazardous waste in containers shall meet the standards specified in s. NR 662.016 (2) (b) and shall mark or label its containers with all of the following:

a. The words "Episodic Hazardous Waste."

b. An indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics, such as ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association 704 label, incorporated into s. SPS 314.001 (1) (a).

c. The date upon which the episodic event began, clearly visible for inspection on each container.

2. A small quantity generator accumulating episodic hazardous waste in tanks shall meet the standards specified in s. NR 662.016 (2) (c) and shall do all of the following:

a. Mark or label the tanks with the words "Episodic Hazardous Waste."

b. Mark or label the tanks with an indication of the hazards of the contents. Acceptable indications of hazardous contents include the following: applicable hazardous waste characteristic or characteristics such as, ignitable, corrosive, reactive, or toxic; hazard communication consistent with the department of transportation requirements on labeling or placarding, incorporated into s. Trans 326.01 (3); a hazard statement or pictogram consistent

with the Occupational Safety and Health Administration Hazard Communication Standard, incorporated into s. SPS 332.50; or a chemical hazard label consistent with the National Fire Protection Association, incorporated into s. SPS 314.001 (1) (a).

c. Use inventory logs, monitoring equipment or other records to identify the date upon which each period of accumulation begins and ends.

d. Keep inventory logs or records with the information in subd. c. on-site and available for inspection.

(e) The small quantity generator shall treat hazardous waste generated from an episodic event on-site or manifest and ship such hazardous waste off-site to a designated facility, as defined in s. NR 660.10 (21), within 60 calendar days from the start of the episodic event.

(f) The small quantity generator shall maintain all of the following records for 3 years from the end date of the episodic event:

1. Beginning and end dates of the episodic event.

2. A description of the episodic event.

3. A description of the types and quantities of hazardous wastes generated during the event.

4. A description of how the hazardous waste was managed as well as the name of the designated facility, as defined in s. NR 660.10 (21), that received the hazardous waste.

5. Name of the hazardous waste transporter.

6. An approval letter from the department if the generator petitioned to conduct one additional episodic event per calendar year.

NR 662.233 Petition to manage one additional episodic event per calendar year. (1) A generator may petition the department for a second episodic event in a calendar year without impacting its generator category under the following conditions:

(a) If a very small quantity generator or small quantity generator has already held a planned episodic event in a calendar year, the generator may petition the department for an additional unplanned episodic event in that calendar year within 72 hours of the unplanned event.

(b) If a very small quantity generator or small quantity generator has already had an unplanned episodic event in a calendar year, the generator may petition the department for an additional planned episodic event in that calendar year.

(2) The petition shall include all of the following:

(a) The reason an additional episodic event is needed and the nature of the episodic event.

(b) The estimated amount of hazardous waste to be managed from the event.

(c) How the hazardous waste is to be managed.

(d) The estimated length of time needed to complete management of the hazardous waste generated from the episodic event, not to exceed 60 days.

(e) Information regarding the previous episodic event managed by the generator, including the nature of the event, whether it was a planned or unplanned event, and how the generator complied with the conditions.

(3) The petition shall be made to the department in writing, either on paper or electronically. The department shall have the discretion to grant or deny any such petition.

(4) The generator shall retain written approval in its records for 3 years from the date the episodic event ended.

Subchapter M — Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators

NR 662.250 Applicability. The regulations of this subchapter apply to those areas of a large quantity generator where hazardous waste is generated or accumulated on-site.

NR 662.251 Maintenance and operation of facility. A large quantity generator shall maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment.

NR 662.252 Required equipment. All areas to which this subchapter applies shall be equipped with all of the items in subs. (1) to (4). A facility may demonstrate that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below or the actual hazardous waste generation or accumulation area does not lend itself for safety reasons to have a particular kind of equipment specified below. A large quantity

generator may determine the most appropriate locations within its facility to locate equipment necessary to prepare for and respond to emergencies. Required equipment includes all of the following:

(1) An internal communications or alarm system capable of providing immediate emergency instruction, voice or signal, to facility personnel.

(2) A device, such as a telephone, immediately available at the scene of operations, or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams.

(3) Portable fire extinguishers, spill control equipment, decontamination equipment, and fire control equipment including special extinguishing equipment, such as those that use foam, inert gas, or dry chemicals.

(4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

NR 662.253 Testing and maintenance of equipment. All communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment shall be tested and maintained as necessary to assure its proper operation in time of emergency.

NR 662.254 Access to communications or alarm system. (1) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate, direct, and unimpeded access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under s. NR 662.252.

(2) In the event there is just one employee on the premises while the facility is operating, the employee shall have immediate, direct, and unimpeded access to a device, such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under s. NR 662.252.

NR 662.255 Required aisle space. The large quantity generator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control

equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

NR 662.256 Arrangements with local authorities. (1) The large quantity generator shall attempt to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, and local hospitals, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the local emergency planning committee if it is determined to be the appropriate organization with which to make arrangements. A large quantity generator shall attempt to make arrangements by taking all of the following actions:

(a) A large quantity generator attempting to make arrangements with its local fire department shall determine the potential need for the services of the local police department, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals.

(b) As part of this coordination, the large quantity generator shall attempt to make arrangements, as necessary, to familiarize the above organizations with the layout of the facility, the properties of the hazardous waste handled at the facility and associated hazards, places where personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes as well as the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

(c) Where more than one police or fire department might respond to an emergency, the large quantity generator shall attempt to make arrangements designating primary emergency authority to a specific fire or police department, and arrangements with any others to provide support to the primary emergency authority.

(2) The large quantity generator shall maintain records documenting the arrangements with the local fire department as well as any other organization necessary to respond to an emergency. This documentation shall include documentation in the operating record that either confirms such arrangements actively exist or, in cases where no arrangements exist, confirms that attempts to make such arrangements were made.

(3) A facility possessing 24-hour response capabilities may seek a waiver from the authority having jurisdiction over the fire code within the facility's state or locality as far as

needing to make arrangements with the local fire department as well as any other organization necessary to respond to an emergency, provided that the waiver is documented in the operating record.

NR 662.260 Purpose and implementation of contingency plan. (1) A large quantity generator shall have a contingency plan for the facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(2) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

NR 662.261 Content of contingency plan. (1) The contingency plan shall describe the actions facility personnel shall take to comply with ss. NR 662.260 and 662.265 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(2) If the generator has already prepared a spill prevention, control, and countermeasures or SPCC plan in accordance with 40 CFR part 112, or some other emergency or contingency plan, it need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the standards of this chapter. The generator may develop one contingency plan that meets all regulatory standards. The department recommends that the plan be based on the national response team's integrated contingency plan guidance or the "One Plan."

(3) The plan shall describe arrangements agreed to with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, local hospitals or, if applicable, the local emergency planning committee, according to s. NR 662.256.

(4) The plan shall list names and emergency telephone numbers of all persons qualified to act as emergency coordinator under s. NR 662.264, and this list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and

others shall be listed in the order in which they will assume responsibility as alternates. In situations where the generator facility has an emergency coordinator continuously on duty because it operates 24 hours per day, every day of the year, the plan may list the staffed position, such as operations manager, shift coordinator, and shift operations supervisor, as well as an emergency telephone number that can be guaranteed to be answered at all times.

(5) The plan shall include a list of all emergency equipment at the facility, such as fire extinguishing systems, spill control equipment, internal and external communications and internal and external alarm systems, and decontamination equipment, where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(6) The plan shall include an evacuation plan for generator personnel where there is a possibility that evacuation could be necessary. This plan shall describe the signal to be used to begin evacuation, evacuation routes, and alternate evacuation routes in cases where the primary evacuation routes could be blocked by releases of hazardous waste or fires.

NR 662.262 Copies of contingency plan. A copy of the contingency plan and all revisions to the plan shall be maintained at the large quantity generator. The contingency plan is also subject to the following requirements:

(1) The large quantity generator shall submit a copy of the contingency plan and all revisions to all local emergency responders, such as police departments, fire departments, hospitals and state and local emergency response teams that may be called upon to provide emergency services. This document may also be submitted to the local emergency planning committee, as appropriate.

(2) A large quantity generator that first becomes subject to these provisions after May 30, 2017 or a large quantity generator that is otherwise amending its contingency plan shall at that time submit a quick reference guide of the contingency plan to the local emergency responders identified under sub. (1) or, as appropriate, the local emergency planning committee. The quick reference guide shall include all of the following elements:

(a) The types and names of hazardous wastes in layman's terms and the hazard associated with each hazardous waste present at any one time, such as toxic paint wastes, spent ignitable solvent, or corrosive acid.

(b) The estimated maximum amount of each hazardous waste that may be present at any one time.

(c) The identification of any hazardous wastes for which exposure would require unique or special treatment by medical or hospital staff.

(d) A map of the facility showing where hazardous wastes are generated, accumulated and treated and routes for accessing these wastes.

(e) A street map of the facility in relation to surrounding businesses, schools and residential areas to understand how best to get to the facility and also evacuate citizens and workers.

(f) The locations of water supply, such as a fire hydrant and its flow rate.

(g) The identification of on-site notification systems, such as a fire alarm that rings off-site, or smoke alarms.

(h) The name of the emergency coordinator, defined under s. NR 662.264, and 7-day, 24-hour emergency telephone number or, in the case of a facility where an emergency coordinator is continuously on duty, the emergency telephone number for the emergency coordinator.

(3) A generator shall update its quick reference guides, if necessary, whenever the contingency plan is amended and shall submit these documents to the local emergency responders identified in sub. (1) or, as appropriate, the local emergency planning committee.

NR 662.263 Amendment of contingency plan. The contingency plan shall be reviewed and, if necessary, immediately amended whenever the following occurs:

(1) Applicable regulations are revised.

(2) The plan fails in an emergency.

(3) The generator facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.

(4) The list of emergency coordinators changes.

(5) The list of emergency equipment changes.

NR 662.264 Emergency coordinator. At all times, there shall be at least one employee either on the generator's premises or on call and available to respond to an emergency by reaching the facility within a short period of time with the responsibility for coordinating all emergency response measures and implementing the necessary emergency procedures specified in s. NR 662.665. Although responsibilities may vary depending on factors such as type and variety of hazardous wastes handled by the facility, as well as type and complexity of the facility, this emergency coordinator shall be thoroughly familiar with all aspects of the generator's contingency plan, all operations and activities at the facility, the location and characteristics of hazardous waste handled, the location of all records within the facility, and the facility's layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

NR 662.265 Emergency procedures. (1) Whenever there is an imminent or actual emergency situation, the emergency coordinator, or a designee when the emergency coordinator is on call, shall immediately do all of the following:

(a) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel.

(b) Notify appropriate state or local agencies with designated response roles if their help is needed.

(2) Whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of the facility records or manifests and, if necessary, by chemical analysis.

(3) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion, such as the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions.

(4) If the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health or the environment outside the facility, the emergency coordinator shall report the findings as follows:

(a) If the assessment indicates that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated.

(b) The emergency coordinator shall immediately notify either the government official designated as the on-scene coordinator for that geographical area, or the national response center using their 24-hour toll free number 800-424-8802. The report shall include all of the following:

1. Name and telephone number of the reporter.
2. Name and address of the generator.
3. Time and type of incident, such as release or fire.
4. Name and quantity of material involved, to the extent known.
5. The extent of injuries, if any.
6. The possible hazards to human health or the environment outside the facility.

(5) During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the generator's facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released hazardous waste, and removing or isolating containers.

(6) If the generator stops operations in response to a fire, explosion or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment.

(7) Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the generator can demonstrate, in accordance with s. NR 661.0003 (3) or (4), that the recovered material is not a hazardous waste, then it is a newly generated hazardous waste that shall be managed in accordance with all the applicable requirements and conditions for exemption under chs. NR 662, 663, and 665.

(8) The emergency coordinator shall ensure that all of the following are met in the affected area of the facility:

(a) No hazardous waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed.

(b) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(9) The generator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the generator shall submit a written report on the incident to the department. The report shall include all of the following information:

(a) Name, address, and telephone number of the generator

(b) Date, time, and type of incident, such as fire or explosion.

(c) Name and quantity of material involved.

(d) The extent of any injuries.

(e) An assessment of actual or potential hazards to human health or the environment, where this is applicable.

(f) Estimated quantity and disposition of recovered material that resulted from the incident.

SECTION 47. NR 663.10 Subchapter A (Note) is amended to read:

NR 663

Subchapter A — General

Note: Chapter NR 662 and this chapter establish the responsibilities of generators and transporters of hazardous waste in the handling, transportation and management of that waste. In these rules, the department has expressly referenced certain regulations of the U.S. department of transportation (DOT) governing the transportation of hazardous materials. These rules concern, among other things, labeling, marking, placarding, using proper containers and reporting discharges. The department has expressly referenced these rules in order to satisfy its statutory obligation to promulgate rules ~~which~~ that are necessary to protect human health and the environment in the transportation of hazardous waste. The department's reference to these DOT

regulations ensures consistency with the requirements of DOT and thus avoids the establishment of duplicative or conflicting requirements with respect to these matters.

DOT has revised its hazardous materials transportation regulations in order to encompass the transportation of hazardous waste and to regulate intrastate, as well as interstate, transportation of hazardous waste. Transporters of hazardous waste are cautioned that DOT's regulations are fully applicable to their activities and enforceable by DOT. These DOT regulations are codified in 49 CFR ~~subpart C~~ Chapter I, Subchapter C.

~~Except for transporters of bulk shipments of hazardous waste by water, a transporter who meets all applicable requirements of 49 CFR parts 171 to 179 and the requirements of ss. NR 663.11 and 663.31 will be deemed in compliance with this chapter. Regardless of DOT's action, the department retains its authority to enforce the requirements of ch. NR 663.~~

SECTION 48. NR 663.10 (4) is repealed and recreated to read:

NR 663.10 (4) A transporter of hazardous waste that is being imported from or exported to any other country for purposes of recovery or disposal is subject to this subchapter and to all other relevant requirements under subch. H of ch. NR 662, including ss. 662.083 (4) and 662.084 (4) for movement documents.

SECTION 49. NR 663.12 is renumbered NR 663.12 (1) and amended to read:

NR 663.12 (1) A transporter who stores manifested shipments of hazardous waste in containers meeting the independent requirements ~~of~~ under s. NR 662.030 of this chapter at a transfer facility for a period of 10 days or less is not subject to regulation under chs. NR 664, 665, 667, 668, and 670 with respect to the storage of those wastes.

SECTION 50. NR 663.12 (2) is created to read:

NR 663.12 (2) When consolidating the contents of 2 or more containers with the same hazardous waste into a new container, or when combining and consolidating 2 different hazardous wastes that are compatible with each other, the transporter shall mark its containers of 119 gallons or less with all of the following information:

(a) The words “Hazardous Waste.”

(b) The applicable EPA hazardous waste number, or EPA hazardous waste code, listed in subch. C and D of ch. NR 661, or in compliance with s. NR 662.032 (3).

SECTION 51. NR 663.20 (1) (a) and (b) are repealed and recreated to read:

NR 663.20 (1) (a) *Manifest requirements.* A transporter may not accept hazardous waste from a generator unless the transporter is also provided with a manifest form, EPA form 8700-22, and if necessary, EPA form 8700-22A, signed in accordance with the rquirements of NR 662.023, or if provided with an electronic manifest tha tis obtained, completed, and transmitted in accordance with NR 662.020 (1) (c) and signed with a valid and enforceable electronic signature as described in NR 662.025.

(b) *Exports.* For exports of hazardous waste subject to the requirements under subch. H of ch. NR 662, a transporter may not accept hazardous waste without a manifest signed by the generator in accordance with this section, as appropriate, and for exports occurring under the terms of a consent issued by EPA on or after December 31, 2016, a movement document that includes all information required under s. NR 662.083 (4).

SECTION 52. NR 663.20 (1) (c), (d), (e), (f), (g) and (i) are created to read:

NR 663.20 (1) (c) *Compliance date for form revisions.* The revised manifest form and procedures specified in ss. NR 661.0007, 660.10, 663.20, and 663.21, had an effective date of September 5, 2006. The manifest form and procedures in ss. NR 661.0007, 660.10, 663.20, and 663.21, contained in the chs. NR 660 to 665 edition revised as of July 1, 2004, were applicable until September 5, 2006.

(d) *Use of electronic manifest -- legal equivalence to paper forms for participating transporters.* An electronic manifest that is obtained, completed, and transmitted in accordance with s. NR 662.020 (1) (c), and used in accordance with this section in lieu of EPA Forms 8700-22 and 8700-22A, is the legal equivalent of a paper manifest form bearing handwritten signatures, and satisfies for all purposes any requirement to obtain, complete, sign, carry, provide, give, use, or retain a manifest.

1. Any requirement to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning specified in 40 CFR 262.25 and s. NR 662.025 (1).

2. Any requirement to give, provide, send, forward, or return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person by submission to the electronic manifest system.

3. Any requirement of a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the waste shipment, except that to the extent that the hazardous materials regulation on shipping papers for carriage by public highway requires transporters of hazardous materials to carry a paper document to comply with 49 CFR 177.817, a hazardous waste transporter shall carry one printed copy of the electronic manifest on the transport vehicle.

4. Any requirement for a transporter to keep or retain a copy of a manifest is satisfied by the retention of an electronic manifest in the transporter's account on the e-Manifest system, provided that the copies are readily available for viewing and production if requested by the department.

5. No transporter may be held liable for the inability to produce an electronic manifest for inspection under this section if that transporter can demonstrate that the inability to produce the electronic manifest is exclusively due to a technical difficulty with the EPA system for which the transporter bears no responsibility.

(e) *Accessing the electronic manifest system.* A transporter may participate in the electronic manifest system either by accessing the electronic manifest system from the transporter's own electronic equipment, or by accessing the electronic manifest system from the equipment provided by a participating generator, by another transporter, or by a designated facility.

(f) *Special procedures when electronic manifest is not available.* If, after a manifest has been originated electronically and signed electronically by the initial transporter, the electronic manifest system becomes unavailable for any reason, then all of the following requirements shall be met:

1. The transporter in possession of the hazardous waste when the electronic manifest becomes unavailable shall reproduce sufficient copies of the printed manifest that is carried on the transport vehicle under par. (d) 3., or obtain and complete another paper manifest for this purpose. The transporter shall reproduce sufficient copies to provide the transporter and all

subsequent waste handlers with a copy for their files, plus 2 additional copies that will be delivered to the designated facility with the hazardous waste.

2. On each printed copy, the transporter shall include a notation in the special handling and additional description space, item 14, that the paper manifest is a replacement manifest for a manifest originated in the electronic manifest system. The transporter shall include, if not pre-printed on the replacement manifest, the manifest tracking number of the electronic manifest that is replaced by the paper manifest, and shall also include a brief explanation why the electronic manifest was not available for completing the tracking of the shipment electronically.

3. A transporter signing a replacement manifest to acknowledge receipt of the hazardous waste shall ensure that each paper copy is individually signed and that a legible handwritten signature appears on each copy.

4. From the point at which the electronic manifest is no longer available for tracking the waste shipment, the paper replacement manifest copies shall be carried, signed, retained as records, and given to a subsequent transporter or to the designated facility, following the instructions, procedures, and requirements that apply to the use of all other paper manifests.

(g) *Special procedures for electronic signature methods undergoing tests.* If a transporter using an electronic manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the transporter shall sign the electronic manifest electronically and also sign with an ink signature the transporter acknowledgement of receipt of materials on the printed copy of the manifest that is carried on the vehicle in accordance with par. (d) 3. This printed copy bearing the generator's and transporter's ink signatures shall also be presented by the transporter to the designated facility to sign in ink to indicate the receipt of the waste materials or to indicate discrepancies. After the owner or operator of the designated facility has signed this printed manifest copy with its ink signature, the printed manifest copy shall be delivered to the designated facility with the waste materials.

(i) *Post-receipt manifest data corrections*. After a facility has certified to the receipt of hazardous wastes by signing item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person, for example the waste handler, named on the manifest. A transporter may participate electronically in the post-receipt data corrections process

by following the process described in s. NR 664.0071 (12), which applies to corrections made to either paper or electronic manifest records.

SECTION 53. NR 663.20 (3) is repealed and recreated to read:

NR 663.20 (3) The transporter shall ensure that the manifest accompanies the hazardous waste. In the case of exports occurring under the terms of a consent issued by EPA to the exporter on or after December 31, 2016, the transporter shall ensure that a movement document that includes all information required under s. NR 662.083 (4) also accompanies the hazardous waste. In the case of imports occurring under the terms of a consent issued by EPA to the country of export or the importer on or after December 31, 2016, the transporter shall ensure that a movement document that includes all information required under s. NR 662.084 (4) also accompanies the hazardous waste.

SECTION 54. NR 663.20 (5) (b) and (6) (b) are amended to read:

NR 663.20 (5) (b) A shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification, and signatures) and, for exports~~, an EPA acknowledgment of consent~~ or imports occurring under the terms of a consent issued by EPA on or after December 31, 2016, a movement document that includes all information required under s. NR 662.083 (4) or 662.084 (4) accompanies the hazardous waste.

(6) (b) Rail transporters shall ensure that a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification, and signatures) and, for exports~~, an EPA acknowledgement of consent~~ or imports occurring under the terms of a consent issued by EPA on or after December 31, 2016, a movement document that includes all information required under s. NR 662.083 (4) or 662.084 (4) accompanies the hazardous waste at all times.

Note: Intermediate rail transporters are not required to sign either the manifest, moving document, or shipping paper.

SECTION 55. NR 663.20 (7) (d) is repealed and recreated to read:

NR 663.20 (7) (d) For paper manifests only, do all of the following:

1. Send a copy of the manifest to the e-Manifest system in accordance with the allowable methods specified in s. NR 664.0071 (1) (b) 5.

2. For shipments initiated prior to the AES filing compliance date, when instructed by the exporter to do so, give a copy of the manifest to a U.S. customs official at the point of departure from the United States.

SECTION 56. NR 663.21 (1) and (2) (a) are amended to read:

NR 663.21 (1) Except as provided in sub. (2) of this section, ~~T~~the transporter shall deliver the entire quantity of hazardous waste ~~which~~ that the transporter has accepted from a generator or a transporter to one of the following:

(2) (a) *Emergency condition.* If the hazardous waste cannot be delivered in accordance with ~~sub.~~ s. NR 663.21 (1) (a), (b), or (d) because of an emergency condition other than rejection of the waste by the designated facility or alternate designated facility, then the transporter must contact the generator for further instructions and must revise the manifest according to the generator's instructions.

SECTION 57. NR 663.21 (2) (b) is repealed and recreated to read:

NR 663.21 (2) (b) *Transporters without agency authority.* If the hazardous waste is not delivered to the next designated transporter in accordance with sub. (1) (c), and the current transporter is without contractual authorization from the generator to act as the generator's agent with respect to transporter additions or substitutions, then the current transporter must contact the generator for further instructions prior to making any revisions to the transporter designations on the manifest. The current transporter may thereafter make the revisions if all of the following conditions are met:

1. The hazardous waste is not delivered in accordance with sub, (1) (c) because of an emergency condition.

2. The current transporter proposes to change the transporter designated on the manifest by the generator, or to add a new transporter during transportation, to respond to an emergency, or for purposes of transportation efficiency, convenience, or safety.

SECTION 58. NR 663.21 (2) (b) 3., (c), (d) and (3) are created to read:

NR 663.21 (2) (b) 3. The generator authorizes the revision.

(c) *Transporters with agency authority.* If the hazardous waste is not delivered to the next designated transporter in accordance with s. NR 663.21 (1) (c) and the current transporter has authorization from the generator to act as the generator's agent, then the current transporter may change the transporter designated on the manifest, or add a new transporter, during transportation without the generator's prior, explicit approval, provided all of the following conditions are met:

1. The current transporter is authorized by a contractual provision that provides explicit agency authority for the transporter to make transporter changes on behalf of the generator.

2. The transporter enters in item 14 of each manifest on which a change is made, the following statement of its agency authority: "Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf."

3. The change in designated transporters is necessary to respond to an emergency, or for purposes of transportation efficiency, convenience, or safety.

(d) *Generator liability.* The grant by a generator of authority to a transporter to act as the agent of the generator with respect to changes to transporter designations under par. (c) does not affect the generator's liability or responsibility for complying with any applicable requirement under this chapter, or grant any additional authority to the transporter to act on behalf of the generator.

(3) If hazardous waste is rejected by the designated facility while the transporter is on the facility's premises, then the transporter must obtain one of the following:

(a) For a partial load rejection or for regulated quantities of container residues, a copy of the original manifest that includes the facility's date and signature, and the manifest tracking number of the new manifest that will accompany the shipment, and a description of the partial rejection or container residue in the discrepancy block of the original manifest. The transporter shall retain a copy of this manifest in accordance with s. NR 663.22, and give the remaining copies of the original manifest to the rejecting designated facility. If the transporter is forwarding the rejected part of the shipment or a regulated container residue to an alternate facility or returning it to the generator, the transporter must obtain a new manifest to accompany the shipment, and the new manifest shall include all of the information required in s. NR 664.0072 (5) (a) to (f) or (6) (a) to (f) or s. NR 665.0072 (5) (a) to (f) or (6) (a) to (f).

(b) For a full load rejection that will be taken back by the transporter, a copy of the original manifest that includes the rejecting facility's signature and date attesting to the rejection, the description of the rejection in the discrepancy block of the manifest, and the name, address, phone number, and identification number for the alternate facility or generator to whom the shipment must be delivered. The transporter shall retain a copy of the manifest in accordance with s. NR 663.22, and give a copy of the manifest containing this information to the rejecting designated facility. If the original manifest is not used, then the transporter must obtain a new manifest for the shipment and comply with s. NR 664.0072 (5) (a) to (f) or 665.0072 (5) (a) to (f).

SECTION 59. NR 663.25 is created to read:

NR 663.25 **Electronic manifest signatures.** Electronic manifest signatures shall meet the criteria described in 40 CFR 262.25 and s. NR 662.025.

SECTION 60. NR 664.0001 (7) (a) (Note), (b) and (c) are amended to read:

NR 664.0001 (7) (a) **Note:** The specific requirements for solid waste landfills accepting hazardous waste from very small quantity generators are contained in s. NR 506.155. Very small quantity generators have the option of ensuring delivery of their hazardous waste to certain solid waste disposal facilities under ~~ss. NR 662.220 (5) (e) 1. b. or 2. c. and d. or 662.220 (6) (e) 1. b. or 2. c. or d.~~ s. NR 662.014.

(b) The owner or operator of a facility managing recyclable materials described in s. NR ~~661.06~~ 661.0006 (1) (b), (c) and (d), ~~(~~except to the extent they are referred to in subch. C, F, G or H of ch. NR 666, or ch. NR 679~~)~~.

(c) A generator accumulating waste on−site in compliance with ~~s. NR 662.034 or 662.192~~ s. NR 662.014, 662.015, 662.016, or 662.017, or treating waste in containers or tanks, provided the requirements ~~of s. NR 662.034, 662.192 or 662.220~~ under s. NR 662.014, 662.016, or 662.017 are met.

SECTION 61. NR 664.0001 (7) (m) is created to read:

NR 664.0001 (7) (m) A reverse distributor accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in s. NR

666.500. Reverse distributors are subject to regulation under ch. NR 666 subch. P in lieu of this chapter for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

SECTION 62. NR 664.0004 is amended to read:

NR 664.0004 **Imminent danger action.** Notwithstanding any other provisions of this chapter, enforcement actions may be brought pursuant to 42 USC 6973(a) and s. 291.85, Stats.

SECTION 63. NR 664.0012 (1) (intro.) is created to read:

NR 664.0012 (1) The owner or operator of a facility that is arranging or has arranged to receive hazardous waste subject to subch. H of ch. NR 662 from a foreign source shall submit all of the following required notices:

SECTION 64. NR 664.0012 (1) (a) and (b) are repealed and recreated to read:

NR 664.0012 (1) (a) In accordance with s. NR 662.084 (2), for imports when the competent authority of the country of export does not require the foreign exporter to submit to it a notification proposing export and obtain consent from EPA and the competent authorities for the countries of transit, the owner or operator of the facility, if acting as the importer, shall provide notification of the proposed transboundary movement in English to EPA using the allowable methods listed in s. NR 662.084 (2) (a) at least 60 days before the first shipment is expected to depart the country of export. The notification may cover up to one year of shipments of wastes having similar physical and chemical characteristics, the same United Nations classification, the same hazardous waste codes and OECD waste codes, and being sent from the same foreign exporter.

(b) In accordance with s. NR 662.0084 (4) (b) 15., a copy of the movement document bearing all required signatures within 3 working days of receipt of the shipment to the foreign exporter; to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively; and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System, waste import export tracking system, or its successor system. The original of the signed movement document shall be maintained at the facility for at least 3

years. The owner or operator of a facility may satisfy this recordkeeping requirement by retaining electronically submitted documents in the facility's account on EPA's waste import export tracking system, or its successor system, provided that copies are readily available for viewing and production if requested by EPA or by the department. No owner or operator of a facility shall be held liable for the inability to produce the documents for inspection under this paragraph if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's waste import export tracking system, or its successor system for which the owner or operator of a facility bears no responsibility.

SECTION 65. NR 664.0012 (1) (c) and (d) are created to read:

NR 664.0012 (1) (c) In accordance with s. NR 662.084 (6) (d), if the facility has physical control of the waste and it will be sent to an alternate facility or returned to the country of export, the owner or operator of the facility shall inform EPA, using the allowable methods listed in s. NR 662.084 (2) (a) of the need to return or arrange alternate management of the shipment.

(d) In accordance with s. NR 662.084 (7), the owner or operator shall do all of the following:

1. Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and for shipments recycled or disposed of on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System or its successor system.

2. If the facility performed any of recovery operations R12, R13, or RC16, or disposal operations D13 through D15, or DC17, promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC16, or one of disposal operations D1 through D12, or DC15 to DC16. Copies of the confirmation shall be also be sent to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import-

export reporting compliance date, to EPA electronically using EPA's waste import export tracking system, or its successor system. The recovery and disposal operations in this subdivision are defined in s. NR 662.081.

SECTION 66. NR 664.0015 (2) (d) is amended to read:

NR 664.0015 (2) (d) The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, shall be inspected daily when in use. At a minimum, the inspection schedule shall include the items and frequencies called for in ss. NR 664.0174, 664.0193, 664.0195, 664.0226, 664.0254, 664.0303, 664.0347, 664.0602, 664.1033, 664.1052, 664.1053, 664.1058 and 664.1083 to 664.1089, where applicable. Chapter NR 670 requires the inspection schedule to be submitted with part B of the license application. The department will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the department may modify or amend the schedule as necessary.

SECTION 67. NR 664.0052 (2) is amended to read:

NR 664.0052 (2) If the owner or operator has already prepared a spill prevention, control and countermeasures (SPCC) plan according to 40 CFR ~~parts~~ part 112~~or 1510~~, or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this chapter. The owner or operator may develop one contingency plan ~~which~~ that meets all regulatory requirements. The department recommends that the plan be based on the national response team's (NRT) integrated contingency plan guidance. When modifications are made to non-hazardous waste provisions in an integrated contingency plan, the changes do not trigger the need for a hazardous waste license modification.

SECTION 68. NR 664.0056 (7) (Note) is amended to read:

NR 664.0056 (7) **Note**: Unless the owner or operator can demonstrate, according to s. NR ~~661.03~~ 661.0003 (3) or (4), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it according to all applicable requirements ~~of~~ under chs. NR 662 and 663 and this chapter.

SECTION 69. NR 664.0071 (1) (b) 4. is amended to read:

NR 664.0071 (1) (b) 4. Within 30 days of delivery, send a copy of page 2 of the manifest to the generator~~; and, within 45 days, send one copy of the manifest to the department in an electronic format specified by the department~~.

SECTION 70. NR 664.0071 (1) (b) 5., 6., (c) (intro), (3), (Note), and (4) are repealed and recreated to read:

NR 664.0071 (1) (b) 5. Submit paper manifests according to all of the following requirements:

a. Beginning on June 30, 2018, send page 1 of any paper manifest and any paper continuation sheet to the e-Manifest system for purposes of data entry and processing, or in lieu of submitting the paper copy to EPA, the owner or operator may transmit to the EPA system an image file of page 1 of the manifest and any continuation sheet, or both a data file and image file corresponding to page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made at the mailing address or electronic mail submission address specified at the e-Manifest program website's directory of services. Beginning on June 30, 2021, EPA will not accept mailed paper manifests from facilities for processing in e-Manifest.

b. Beginning on June 30, 2021, the requirement to submit page 1 of the paper manifest and any paper continuation sheet to the e-Manifest system for purposes of data entry and processing may be met by the owner or operator only by transmitting to the EPA system an image file of page 1 of the manifest and any continuation sheet, or by transmitting to the EPA system both a data file and the image file corresponding to page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made to the electronic mail submission address specified at the e-Manifest program website's directory of services.

6. Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(c) The owner or operator of a facility receiving hazardous waste subject to subch. H of s. NR 662 from a foreign source shall do all of the following:

(3) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements under ch. NR 662. The provisions of ss. NR 662.015, 662.016, and 662.017 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions under ss. NR 662.015, 662.016, and 662.017 only apply to owners or operators who are shipping hazardous waste that they generated at that facility or operating as a large quantity generator consolidating hazardous waste from very small quantity generators under NR 662.017 (6).

Note: The provisions under NR 662.034 are applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions under NR 662.034 only apply to owners or operators that are shipping hazardous waste that they generated at that facility.

(4) In accordance with s. NR 662.084 (4) (b) 15., within 3 working days of the receipt of a shipment subject to subch. H of ch. NR 662, the owner or operator of a facility shall provide a copy of the movement document bearing all required signatures to the foreign exporter; to the competent authorities of the countries of export and transit that control the shipment as an export and transit of hazardous waste respectively; and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's waste import export tracking system, or its successor system. The original copy of the movement document shall be maintained at the facility for at least 3 years from the date of signature. The owner or operator of a facility may satisfy this recordkeeping requirement by retaining electronically submitted documents in the facility's account on EPA's waste import export tracking system, or its successor system, provided that copies are readily available for viewing and production if requested by any EPA or department. No owner or operator of a facility shall be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's waste import export tracking system, or its successor system, for which the owner or operator of a facility bears no responsibility.

SECTION 71. NR 664.0071 (1) (c) 1. and 2., (6), (7), (8), (9), (10), (11) and (12) are created to read:

NR 664.0071 (1) (c) 1. Additionally list the relevant consent number from consent documentation supplied by EPA to the facility for each waste listed on the manifest, matched to the relevant list number for the waste from block 9b. If additional space is needed, the owner or operator should use a Continuation Sheet, EPA Form 8700-22A.

2. Send a copy of the manifest within 30 days of delivery to EPA using the addresses listed in s. NR 662.082 (5). In addition, the facility shall submit the copy to the e-Manifest system as specified in par. (b) 5.

(6) An electronic manifest that is obtained, completed, and transmitted in accordance with s. NR 662.020 (1) (c), and used in accordance with this paragraph in lieu of the paper manifest form is the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in these regulations to obtain, complete, sign, provide, use, or retain a manifest. Legal equivalence to paper manifests include all of the following:

(a) Any requirement for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning specified in 40 CFR 262.25 and s. NR 662.025 (1).

(b) Any requirement to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person.

(c) Any requirement for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the waste shipment.

(d) Any requirement for an owner or operator to keep or retain a copy of each manifest is satisfied by the retention of the facility's electronic manifest copies in its account on the e-Manifest system, provided that the copies are readily available for viewing and production if requested by the department.

(e) No owner or operator may be held liable for the inability to produce an electronic manifest for inspection under this section if the owner or operator can demonstrate that the

inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the owner or operator bears no responsibility.

(7) An owner or operator may participate in the electronic manifest system either by accessing the electronic manifest system from the owner's or operator's electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the owner's or operator's site by the transporter who delivers the waste shipment to the facility.

(8) If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, all of the following procedures apply to the delivery of the hazardous waste by the final transporter:

(a) Upon delivery of the hazardous waste to the designated facility, the owner or operator shall sign and date each copy of the paper replacement manifest by hand in item 20, designated facility certification of receipt, and note any discrepancies in item 18, discrepancy indication space, of the paper replacement manifest.

(b) The owner or operator of the facility shall return one copy of the paper manifest replacement to the final transporter.

(c) Within 30 days of delivery of the waste to the designated facility, the owner or operator of the facility shall send one signed and dated copy of the paper replacement manifest to the generator, and send an additional signed and dated copy of the paper replacement manifest to the electronic manifest system.

(d) The owner or operator of the facility shall retain at the facility one copy of the paper replacement manifest for at least 3 years from the date of delivery.

(9) If an owner or operator using an electronic manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the owner or operator shall also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator shall retain this original copy among its records for at least 3 years from the date of delivery of the waste.

(10) (a) As prescribed in 40 CFR 264.1311, and determined in 40 CFR 264.1312, an owner or operator who is a user of the electronic manifest system shall be assessed a user fee by EPA for the submission and processing of each electronic and paper manifest. EPA shall update

the schedule of user fees and publish them to the user community, as provided in 40 CFR 264.1313.

(b) An owner or operator subject to user fees under this section shall make user fee payments in accordance with the requirements of 40 CFR 264.1314, subject to the informal fee dispute resolution process of 40 CFR 264.1316, and subject to the sanctions for delinquent payments under 40 CFR 264.1315.

(11) Electronic manifest signatures shall meet the criteria described in 40 CFR 262.025 and s. NR 662.025.

(12) Post-receipt manifest data corrections. After a facility has certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person, for example the waste handler, shown on the manifest.

(a) Interested persons must make all corrections to manifest data by electronic submission, either by directly entering corrected data to the web based service provided in e-Manifest for the corrections, or by an upload of a data file containing data corrections relating to one or more previously submitted manifests.

(b) Each correction submission must include all of the following information:

1. The manifest tracking number and date of receipt by the facility of the original manifests for which data are being corrected.

2. The item numbers of the original manifest that is the subject of the submitted corrections.

3. For each item number with corrected data, the data previously entered and the corresponding data as corrected by the correction submission.

(c) Each correction submission shall include a statement that the person submitting the corrections certifies that to the best of his or her knowledge or belief, the corrections that are included in the submission will cause the information reported about the previously received hazardous wastes to be true, accurate, and complete in accordance with all of the following:

1. The certification statement must be executed with a valid electronic signature.

2. A batch upload of data corrections may be submitted under one certification statement.

(d) Upon receipt by the system of any correction submission, other interested persons shown on the manifest will be provided electronic notice of the submitter's corrections.

(e) Other interested persons shown on the manifest may respond to the submitter's corrections with comments to the submitter, or by submitting another correction to the system, certified by the respondent as specified in par. (c), and with notice of the corrections to other interested persons shown on the manifest.

SECTION 72. NR 664.0072 (1) (c), (4) (a), (5) (f), (6) (a) and (g) are amended to read:

NR 664.0072 (1) (c) Container residues, which are residues that exceed the quantity limits for empty containers set forth in s. NR ~~661.07~~ 661.0007 (2).

(4) (a) Upon rejecting waste or identifying a container residue that exceeds the quantity limits for empty containers set forth in s. NR ~~661.07~~ 661.0007 (2), the facility owner or operator shall consult with the generator prior to forwarding the waste to another facility that can manage the waste. If it is impossible to locate an alternative facility that can receive the waste, the facility owner or operator may return the rejected waste or residue to the generator. The facility owner or operator shall send the waste to the alternative facility or to the generator within 60 days of the rejection or the container residue identification.

(5) (f) Sign the generator's or offeror's certification to certify, as the offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation, and mail a signed copy of the manifest to the generator identified in item 5 of the new manifest.

(6) (a) Write the facility's EPA ID number in Item 1 of the new manifest. Write the facility's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the facility's site address, then write the facility's site address in the designated space for Item 5 of the new manifest.

(6) (g) For full load rejections that are made while the transporter remains at the facility, the facility owner or operator may return the shipment to the generator with the original manifest by completing Item 18a and 18b of the manifest and supplying the generator's information in the alternate facility space. The facility owner or operator shall retain a copy for its records and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the

original manifest is not used, then the facility owner or operator shall use a new manifest and comply with pars. (a) to (f) and (h).

SECTION 73. NR 664.0072 (6) (h) is created to read:

NR 664.0072 (6) (h) For full or partial load rejections and container residues contained in non-empty containers that are returned to the generator, the facility shall also comply with the exception reporting requirements specified in s. NR 662.042 (1).

SECTION 74. NR 664.0072 (7) is amended to read:

NR 664.0072 (7) If a facility owner or operator rejects a waste or identifies a container residue that exceeds the quantity limits for empty containers set forth in s. NR ~~661.07~~ 661.0007 (2) after it has signed, dated and returned a copy of the manifest to the delivering transporter or to the generator, the facility owner or operator shall amend its copy of the manifest to indicate the rejected wastes or residues in the discrepancy space of the amended manifest. The facility owner or operator shall also copy the manifest tracking number from Item 4 of the new manifest to the discrepancy space of the amended manifest, and shall re−sign and date the manifest to certify to the information as amended. The facility owner or operator shall retain the amended manifest for at least 3 years from the date of amendment and shall, within 30 days, send a copy of the amended manifest to the transporter and generator that received copies prior to their being amended. Within 45 days, the facility owner or operator shall also send one copy of the amended manifest to the department in an electronic format specified by the department.

SECTION 75. NR 664.0101 (2) is amended to read:

NR 664.0101 (2) Corrective action shall be specified in the license in accordance with this section and subch. S. The license shall contain schedules of compliance for the corrective action, ~~(~~where the corrective action cannot be completed prior to issuance of the license~~),~~ and assurances of financial responsibility for completing the corrective action. Corrective action requirements shall be consistent with s. 291.37, Stats. Financial assurance requirements regarding corrective action requirements shall be consistent with s. 289.41 (2) to (12), Stats.

SECTION 76. NR 664.0112 (4) (c) is amended to read:

NR 664.0112 (4) (c) If the facility's operating license is denied, suspended or revoked, or if the facility is otherwise ordered, by judicial decree or final order under 42 USC 6928 or by the department, to cease receiving hazardous wastes or to close, then the requirements of this subsection do not apply. However, the owner or operator shall close the facility in accordance with the deadlines established in s. NR 664.0113.

SECTION 77. NR 664.0143 (3) (e) and (4) (h) are amended to read:

NR 664.0143 (3) (e) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a determination by the department or EPA pursuant to 42 USC 6928 that the owner or operator has failed to perform final closure in accordance with the approved closure plan and other license requirements when required to do so, under the terms of the bond the surety will perform final closure as guaranteed by the bond or shall pay the penal sum of the bond to the department.

(4) (h) Following a determination by the department or EPA pursuant to 42 USC 6928 that the owner or operator has failed to perform final closure in accordance with the closure plan and other license requirements when required to do so, the department may draw on the letter of credit.

SECTION 78. NR 664.0170 and (Note) are amended to read:

NR 664.0170 This subchapter applies to owners and operators of all hazardous waste facilities that store hazardous waste in containers ~~of hazardous waste~~, except as s. NR 664.0001 provides otherwise.

Note: Under ss. NR ~~661.07~~ 661.0007 and ~~661.33~~ 661.0033 (3), if a hazardous waste is emptied from a container the residue remaining in the container is not regulated as hazardous waste if the container is "empty" as defined in s. NR ~~661.07~~ 661.0007. In that event, management of the container is exempt from the requirements of this subchapter.

SECTION 79. NR 664.0174 is amended to read:

NR 664.0174 Inspections. At least weekly, the owner or operator shall inspect areas where containers are stored, looking for leaking containers and for deterioration of containers

and the containment system caused by corrosion or other factors. See ss. NR 664.015 (3) and 664.0171 for remedial action required if deterioration or leaks are detected.

SECTION 80. NR 664.0174 (Note) is repealed.

SECTION 81. NR 664.0178 (Note) is amended to read:

NR 664.0178 **Note:** At closure, as throughout the operating period, unless the owner or operator can demonstrate in accordance with s. NR ~~661.03~~ 661.0003 (4) that the solid waste removed from the containment system is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of chs. NR 662 to 666.

SECTION 82. NR 664.0191 (1) is amended to read:

NR 664.0191 (1) For each existing tank system that does not have secondary containment meeting the requirements of s. NR 664.0193, the owner or operator shall determine that the tank system is not leaking or is unfit for use. Except as provided in sub. (3), the owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by a qualified professional engineer, in accordance with s. NR 670.011 (4), that attests to the tank system's integrity by ~~March 1, 1992~~ January 12, 1988.

SECTION 83. NR 664.0193 (5) (a) 5. is created to read:

NR 664.0193 (5) (a) 5. Provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete.

SECTION 84. NR 664.0193 (5) (b) 5. a., b., and (6) (a) are amended to read:

NR 664.0193 (5) (b) 5. a. The definition of ignitable waste under s. NR ~~661.21~~ 661.0021.

b. The definition of reactive waste under s. NR ~~661.23~~ 661.0023, and may form an ignitable or explosive vapor.

(6) (a) Aboveground piping ~~(exclusive of flanges, joints, valves and other connections)~~ that is visually inspected for leaks on a daily basis, except for flanges, joints, valves and other

connections, which must have secondary containment unless they are identified in and comply with pars. (b) to (d).

SECTION 85. NR 664.0196 (Note) is amended to read:

NR 664.0196 **Note:** The department or EPA Regional Administrator may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order under s. 291.37 or 291.85, Stats. or 42 USC 6924 (v), 6928 (h), or 6973(a), requiring corrective action or other response as deemed necessary to protect human health or the environment.

SECTION 86. NR 664.0197 (1) is amended to read:

NR 664.0197 (1) At closure of a tank system, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless s. NR ~~661.03~~ 661.0003 (4) applies. The closure plan, closure activities, cost estimates for closure and financial responsibility for tank systems shall meet all of the requirements specified in subchs. G and H.

SECTION 87. NR 664.0198 (1) (a) 1. is amended to read:

NR 664.0198 (1) (a) 1. The resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023.

SECTION 88. NR 664.0221 (5) (a) is amended to read:

NR 664.0221 (5) (a) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and the wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristic in s. NR ~~661.24~~ 661.0024.

SECTION 89. NR 664.0228 (1) (a) is amended to read:

NR 664.0228 (1) (a) Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless s. NR ~~661.03~~ 661.0003 (4) applies.

SECTION 90. NR 664.0229 (1) (a) is amended to read:

NR 664.0229 (1) (a) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023.

SECTION 91. NR 664.0256 (1) (a) is amended to read:

NR 664.0256 (1) (a) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023.

SECTION 92. NR 664.0258 (1) is amended to read:

NR 664.0258 (1) At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless s. NR ~~661.03~~ 661.0003 (4) applies.

SECTION 93. NR 664.0301 (5) (a) is amended to read:

NR 664.0301 (5) (a) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and the wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristic in s. NR ~~661.24~~ 661.0024, with EPA hazardous waste numbers D004 to D017.

SECTION 94. NR 664.0312 (1) (a) is amended to read:

NR 664.0312 (1) (a) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023.

SECTION 95. NR 664.0316 (2) and (5) are amended to read:

NR 664.0316 (2) The inside containers shall be overpacked in an open head DOT−specification metal shipping container (49 CFR parts 178 and 179) of no more than 416−liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with s. NR 664.0314 ~~(5)~~ (4), to completely sorb all of the liquid contents of the inside containers. The metal outer container shall be full after it has been packed with inside containers and sorbent material.

(5) Reactive wastes, other than cyanide− or sulfide−bearing waste as defined in s. NR ~~661.23~~ 661.0023 (1) (e), shall be treated or rendered non−reactive prior to packaging in accordance with subs. (1) to (4). Cyanide− and sulfide−bearing reactive waste may be packed in accordance with subs. (1) to (4) without first being treated or rendered non−reactive.

SECTION 96. NR 664.0340 (2) (a) and (c) are amended to read:

NR 664.0340 (2) (a) Except as provided by pars. (b) to ~~(e)~~(d), the standards of this subchapter do not apply to a new hazardous waste incineration unit that becomes subject to hazardous waste license requirements after October 12, 2005, and no longer apply when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR part 63, subpart EEE, by conducting a comprehensive performance test and submitting ~~a~~ proof of a postmarked notification of compliance to the department under 40 CFR 63.1207 (j) and 40 CFR 63.1210 ~~(b)~~(d) documenting compliance with 40 CFR part 63, subpart EEE. Nevertheless, even after this demonstration of compliance with the MACT standards, hazardous waste license conditions that were based on the standards of this chapter will continue to be in effect until the department removes them from the license or denies, suspends or revokes the license, unless the license expressly provides otherwise.

(c) The particulate matter standard of s. NR 664.0343 (3) remains in effect for incinerators that elect to comply with the alternative to the particulate matter standard of 40 CFR 63.1206 (b) (14) and 40 CFR 63.1219 (e).

SECTION 97. NR 664.0340 (2) (e) is repealed.

SECTION 98. NR 664.0340 (3) (a) 2. and 4. are amended to read:

NR 664.0340 (3) (a) 2. Listed as a hazardous waste in subch. D of ch. NR 661 solely because it is reactive (hazard code R) for characteristics other than those in s. NR ~~661.23~~ 661.0023 (1) (d) and (e), and will not be burned when other hazardous wastes are present in the combustion zone.

4. A hazardous waste solely because it possesses any of the reactivity characteristics in s. NR ~~661.23~~ 661.0023 (1) (a), (b), (c), (f), (g) and (h), and will not be burned when other hazardous wastes are present in the combustion zone.

SECTION 99. NR 664.0351 (Note) is amended to read:

NR 664.0351 **Note**: At closure, as throughout the operating period, unless the owner or operator can demonstrate, according to s. NR ~~661.03~~ 661.0003(~~4~~), that the residue removed from the incinerator is not hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it according to the applicable requirements of chs. NR 662 to 666.

SECTION 100. NR 664.0551 (1) is amended to read:

NR 664.0551(1) To implement remedies under s. NR 664.0101, s. 291.37, Stats., or 42 USC 6928(h) or to implement remedies at a licensed facility that is not subject to s. NR 664.0101, the department may designate an area at the facility as a corrective action management unit under the requirements in this section. In this section, "~~Corrective~~corrective action management unit" or "CAMU" means an area within a facility that is used only for managing remediation wastes for implementing corrective action or cleanup at the facility. A CAMU shall be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

SECTION 101. NR 664.0552 (1) is amended to read:

NR 664.0552(1) To implement remedies under s. NR 664.0101, ss. 291.37 and 291.97 (1), Stats., or 42 USC 6928(h) or to implement remedies at a licensed facility that is not subject

to s. NR 664.0101, the department may designate an area at the facility as a corrective action management unit under the requirements in this section. In this section, “corrective action management unit" or “CAMU" means an area within a facility that is used only for managing CAMU-eligible wastes for implementing corrective action or cleanup at the facility. A CAMU shall be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

SECTION 102. NR 664.0553 (1) is amended to read:

NR 664.0553 (1) For temporary tanks and container storage areas used to treat or store hazardous remediation wastes during remedial activities required under s. NR 664.0101, ss. 291.37 and 291.97 (1), Stats., or 42 USC 6928(h) or at a licensed facility that is not subject to s. NR 664.0101, the department may designate a unit at the facility as a temporary unit. A temporary unit shall be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the temporary unit originated. For temporary units, the department may replace the design, operating or closure standard applicable to these units under this chapter or ch. NR 665 with alternative requirements which protect human health and the environment.

SECTION 103. NR 664.0554 (5) (a) 1. is amended to read:

NR 664.0554 (5) (a) 1. The remediation waste no longer meets the definition of ignitable or reactive under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023.

SECTION 104. NR 664.1030 (2) (b), (c), and (3) are amended to read:

NR 664.1030 (2) (b) A unit (including a hazardous waste recycling unit) that is not exempt from licensing under s. NR ~~662.034 (1)~~ 662.017 (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility otherwise subject to the licensing requirements of ch. NR 670.

(c) A unit that is exempt from licensing under s. NR ~~662.034 (1)~~ 662.017 (a) (i.e., a “90−day” tank or container) and is not a recycling unit under s. NR ~~661.06~~ 661.0006.

(3) For the owner and operator of a facility subject to this subchapter and who received an operating license under s. 291.25, Stats., prior to December 6, 1996, the requirements of this subchapter shall be incorporated into the license when the license is reissued according to s. NR 670.415 or reviewed according to s. NR 670.050 (4). Until the date when the owner and operator receives an operating license incorporating the requirements of this subchapter, the owner and operator is subject to the requirements of subch. AA of ch. NR 665.

Note: Sections NR 664.1032 to 664.1036 apply to process vents on hazardous waste recycling units previously exempt under s. NR ~~661.06~~ 661.0006 (3) (a). Other exemptions under ss. NR ~~661.04~~ 661.0004 and 664.0001(7) are not affected by these requirements.

SECTION 105. NR 664.1050 (2) (b), (c), (6), and (Note) are amended to read:

NR 664.1050 (2) (b) A unit (including a hazardous waste recycling unit) that is not exempt from licensing under s. NR ~~662.034 (1)~~662.017 (1) (i.e., a hazardous waste recycling unit that is not a "90−day" tank or container) and that is located at a hazardous waste management facility otherwise subject to the licensing requirements of ch. NR 670.

(c) A unit that is exempt from licensing under s. NR ~~662.034 (1)~~ 662.017 (i.e., a "90−day" tank or container) and is not a recycling unit under s. NR ~~661.06~~ 661.0006.

(6) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for less than 300 hours per calendar year is excluded from ss. NR 664.1052 to 664.1060 if it is identified, as required in s. NR 664.1064 (7) (f).

Note: Sections NR 664.1052 to 664.1065 apply to equipment associated with hazardous waste recycling units previously exempt under s. NR ~~661.06~~ 661.0006 (3) (a). Other exemptions under ss. NR ~~661.04~~ 661.0004 and 664.0001(7) are not affected by these requirements.

SECTION 106. NR 664.1057 (8) (intro.) is amended to read:

NR 664.1057 (8) (intro.) Any valve that is designated, as described in s. NR 664.1064 (8) (b), as a difficult−to−monitor valve is exempt from sub. (1) if ~~any~~ all of the following requirements are met:

SECTION 107. NR 664.1057 (8) (Note) is created to read:

NR 664.1057 (8) **Note:** The equivalent federal RCRA regulations have a compliance date of June 1, 1990, based on when those rules took effect. The Wisconsin rules, initially promulgated in CR 94-076, became effective on June 1, 1995.

SECTION 108. NR 664.1064 (13) is amended to read:

NR 664.1064 (13) The owner or operator of a facility with equipment that is subject to this subchapter and to 40 CFR part 60, 61 or 63, or to corresponding provisions of ch. NR 440, subch. III of ch. NR 446 and chs. NR 447 to 469, may elect to determine compliance with this subchapter either by documentation pursuant to this section, or by documentation of compliance with 40 CFR part 60, 61 or 63, or with corresponding provisions of ch. NR 440, subch. III of ch. NR 446 and chs. NR 447 to 469, pursuant to the relevant provisions of 40 CFR part 60, 61 or 63, or the corresponding provisions of ch. NR 440, subch. III of ch. NR 446 and chs. NR 447 to 469. ~~Keep the~~The owner or operator shall keep documentation of compliance ~~with~~ required by 40 CFR part 60, 61 or 63, or corresponding provisions of ch. NR 440, subch. III of ch. NR 446 and chs. NR 447 to 469, or make ~~it~~ readily available with the facility operating record.

SECTION 109. NR 664.1086 (3) (c) 2. a. and b., (d) 1., (4) (c) 2., and (d) 1. are amended to read:

NR 664.1086 (3) (c) 2. a. For the purpose of meeting the requirements of this section, an empty container as defined in s. NR ~~661.07~~ 661.0007 (2) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

b. In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container in s. NR ~~661.07~~ 661.0007 (2), promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(3) (d) 1. In the case when hazardous waste is already in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., does not meet the

conditions for an empty container in s. NR ~~661.07~~ 661.0007 (2)), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. ~~Conduct~~ The owner or operator shall conduct the container visual inspection on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to the subpart CC container standards in this subchapter). For purposes of this ~~subdivision~~ requirement, the date of acceptance is the date of signature that the facility owner or operator enters on item 20 of the uniform hazardous waste manifest (EPA forms 8700-22 and 8700-22A), as required in s. NR 664.0071. If a defect is detected, the owner or operator shall repair the defect ~~according to~~in accordance with the requirements under subd. 3.

(4) (c) 2. a. For the purpose of meeting the requirements of this section, an empty container as defined in s. NR ~~661.07~~ 661.0007 (2) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

b. In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container in s. NR ~~661.07~~ 661.0007 (2), promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(4) (d) 1. In the case when hazardous waste is already in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., does not meet the conditions for an empty container in s. NR ~~661.07~~ 661.0007 (2)), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. ~~Conduct~~ The owner or operator shall conduct the container visual inspection on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to the subpart CC container standards in this subchapter). For purposes of this ~~subdivision~~ requirement, the date of acceptance is the date of signature that the

facility owner or operator enters on item 20 of the uniform hazardous waste manifest (EPA forms 8700-22 and 8700-22A), as required in s. NR 664.0071. If a defect is detected, the owner or operator shall repair the defect ~~according to~~ in accordance with the requirements of subd. 3.

SECTION 110. NR 664.1101 (3) (d) is amended to read:

NR 664.1101 (3) (d) Inspect and record in the ~~facility's~~ facility operating record, at least once every 7 days, data gathered from monitoring equipment and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

SECTION 111. NR 664.1102 (1) is amended to read:

NR 664.1102 (1) At closure of a containment building, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.,) contaminated subsoils and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless s. NR ~~661.03~~ 661.0003 (4) applies. The closure plan, closure activities, cost estimates for closure and financial responsibility for containment buildings shall meet all of the requirements specified in subchs. G and H.

SECTION 112. NR 664.1200 (Note) is repealed and recreated to read:

NR 664.1200 **Note:** Depending on explosive hazards, hazardous waste munitions and explosives may also be managed in other types of storage units, including containment buildings (subch. DD), tanks (subch. J) or containers (subch. I). See s. NR 666.205 for storage of waste military munitions.

SECTION 113. NR 664.1202 (1) is amended to read:

NR 664.1202 (1) At closure of a magazine or unit which stored hazardous waste under this subchapter, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, contaminated subsoils, and structures and equipment contaminated with waste, and manage them as hazardous waste unless s. NR ~~661.03~~ 661.0003 (4) applies. The closure plan, closure activities, cost estimates for closure and financial responsibility for magazines or units shall meet all of the requirements specified in subchs. G and

H, except that the owner or operator may defer closure of the unit as long as it remains in service as a munitions or explosives magazine or storage unit.

SECTION 114. NR 665.0001 (3) (e) (Note) and (g) are amended to read:

NR 665.0001 (3) (e) **Note**: The specific requirements for solid waste landfills accepting hazardous waste from very small quantity generators are contained in s. NR 506.155. Very small quantity generators have the option of ensuring delivery of their hazardous waste to certain solid waste disposal facilities under ~~ss. NR 662.220 (5) (e) 1. b. and 2. c. and d. and (6) (e) 1. b. or 2. c. or d.~~ s. NR 662.014.

(g) A generator accumulating waste on−site in compliance with ~~s. NR 662.034 or 662.192 (except to the extent the requirements are included in s. NR 662.034 or 662.192)~~ the applicable conditions for exemption specified in ss. NR 662.014 to 662.017 and subchs. K and L of ch. NR 662, except to the extent the requirements are included in ss. NR 662.014 to 662.017 and subchs. K and L of ch. NR 662, or treating waste in containers or tanks, provided the requirements of ~~s. NR 662.034, 662.192 or 662.220~~ ss. NR 662.014 to 662.017 are met.

SECTION 115. NR 665.0001 (3) (p) is created to read:

NR 665.0001 (3) (p) Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in s. NR 666.500. Reverse distributors are subject to regulation under ch. NR 666 subch. P in lieu of this chapter for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

SECTION 116. NR 665.0012 (1) is repealed and recreated to read:

NR 665.0012 (1) The owner or operator of a facility that is arranging or has arranged to receive hazardous waste subject to subch. H of ch. NR 662 from a foreign source shall submit all of the following required notices:

(a) In accordance with s. NR 662.084 (2), for imports where the competent authority of the country of export does not require the foreign exporter to submit to it a notification proposing export and obtain consent from EPA and the competent authorities for the countries of transit,

the owner or operator of the facility, if acting as the importer, shall provide notification of the proposed transboundary movement in English to EPA using the allowable methods listed in s. NR 662.084 (2) (a) at least 60 days before the first shipment is expected to depart the country of export. The notification may cover up to one year of shipments of wastes having similar physical and chemical characteristics, the same United Nations classification, the same hazardous waste codes and OECD waste codes, and being sent from the same foreign exporter.

(b) In accordance with s. NR 662.084 (4) (b) 15., a copy of the movement document bearing all required signatures within 3 working days of receipt of the shipment to the foreign exporter; to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively; and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's waste import export tracking system, or its successor system. The original of the signed movement document shall be maintained at the facility for at least 3 years. The owner or operator of a facility may satisfy this recordkeeping requirement by retaining electronically submitted documents in the facility's account on EPA's waste import export tracking system, or its successor system, provided that copies are readily available for viewing and production if requested by EPA or the department. No owner or operator of a facility shall be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's waste import export tracking system, or its successor system, for which the owner or operator of a facility bears no responsibility.

(c) In accordance with s. NR 662.084 (6) (d), if the facility has physical control of the waste and the waste will be sent to an alternate facility or returned to the country of export, the owner or operator of the facility shall inform EPA of the need to return or arrange alternate management of the shipment using the allowable methods listed in s. NR 662.084 (2) (a).

(d) As specified in s. NR 662.084 (7), the owner or operator shall do all of the following:

1. Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import-export reporting compliance

date, to EPA electronically using EPA's waste import export tracking system, or its successor system.

2. If the facility performed any of recovery operations R12, R13, or RC16, or disposal operations D13 through D15, or DC17, promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC16, or one of disposal operations D1 through D12, or DC15 to DC16. Copies of the confirmation shall also be sent to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's waste import export tracking system, or its successor system. The recovery and disposal operations in this subdivision are defined in ch. NR 662.00081.

SECTION 117. NR 665.0020 [in Subchapter B] is created to read:

NR 665.0020 Schedule of compliance for corrective action. The license issued under s. 291.25(4), Stats., shall contain schedules of compliance for the corrective action and assurances of financial responsibility for completing the corrective action. Corrective action requirements shall be consistent with s. 289.37, Stats. Financial assurance requirements regarding corrective action requirements shall be consistent with ss. 289.41 (2) to (12), Stats.

SECTION 118. NR 665.0052 (2) is amended to read:

NR 665.0052 (2) If the owner or operator has already prepared a spill prevention, control and countermeasures (SPCC) plan according to 40 CFR part 112 ~~or 1510 of chapter V~~, or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this chapter. The owner or operator may develop one contingency plan which meets all regulatory requirements. The department recommends that the plan be based on the national response team's (NRT) integrated contingency plan guidance. When modifications are made to non-hazardous waste provisions in an integrated contingency plan, the changes do not trigger the need for a hazardous waste license modification.

SECTION 119. NR 665.0056 (7) (Note) is amended to read:

Note: Unless the owner or operator can demonstrate, according to s. NR ~~661.03~~ 661.0003 (3) or (4), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it according to all applicable requirements of chs. NR 662 and 663 and this chapter.

SECTION 120. NR 665.0071 (1) (b) 1. and 4. are amended to read:

NR 665.0071 (1) (b) 1. Sign and date~~, by hand,~~ each copy of the manifest.

4. Within 30 days of delivery, send a copy of page 2 of the manifest to the generator ~~and, within 45 days, send one copy of the manifest to the department in an electronic format specified by the department~~.

SECTION 121. NR 665.0071 (1) (b) 5., 6., (1) (c), (3) and (4) are repealed and recreated to read:

NR 665.0071 (1) (b) 5. Submit paper manifests according to all the following requirements:

a. Beginning on June 30, 2018, send page 1 of any paper manifest and any paper continuation sheet to the e-Manifest system for purposes of data entry and processing, or in lieu of submitting the paper copy to EPA, the owner or operator may transmit to the EPA system an image file of page 1 of the manifest and any continuation sheet, or both a data file and image file corresponding to page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made at the mailing address or electronic mail submission address specified at the e-Manifest program website's directory of services. Beginning on June 30, 2021, EPA will not accept mailed paper manifests from facilities for processing in e-Manifest.

b. Beginning on June 30, 2021, the requirement to submit page 1 of the paper manifest and any paper continuation sheet to the e-Manifest system for purposes of data entry and processing may be met by the owner or operator only by transmitting to the EPA system an image file of page 1 of the manifest and any continuation sheet, or by transmitting to the EPA system both a data file and the image file corresponding to page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-

Manifest system shall be made to the electronic mail submission address specified at the e-Manifest program website's directory of services.

6. Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(1) (c) The owner or operator of a facility that receives hazardous waste subject to subch. H of ch. NR 662 from a foreign source shall do all of the following:

1. Additionally list the relevant consent number from consent documentation supplied by EPA to the facility for each waste listed on the manifest, matched to the relevant list number for the waste from block 9b. If additional space is needed, the owner or operator should use a continuation sheet, EPA Form 8700-22A.

2. Send a copy of the manifest within 30 days of delivery to EPA using the addresses listed in s. NR 662.082 (5) until the facility can submit such a copy to the e-Manifest system under par. (b) 5.

(3) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements under ch. NR 662. The provisions under ss. NR 662.015, 662.016, and 662.017 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions under ss. NR 662.015, 662.016, and 662.017 only apply to owners or operators who are shipping hazardous waste which they generated at that facility or operating as a large quantity generator consolidating hazardous waste from very small quantity generators under NR 662.017 (6).

(4) In accordance with s. NR 662.084 (4) (b) 15., within 3 working days of the receipt of a shipment subject to subch. H of ch. NR 662, the owner or operator of a facility shall provide a copy of the movement document bearing all required signatures to the foreign exporter; to the competent authorities of the countries of export and transit that control the shipment as an export and transit of hazardous waste respectively; and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's waste import export tracking system, or its successor system. The original copy of the movement document shall be maintained at the facility for at least 3 years from the date of signature. The owner or operator of a facility may satisfy this recordkeeping requirement by retaining electronically submitted documents in the facility's account on EPA's waste import export tracking system, or its successor system, provided that copies are readily available for viewing and production if requested by any EPA or

department. No owner or operator of a facility shall be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's waste import export tracking system, or its successor system, for which the owner or operator of a facility bears no responsibility.

SECTION 122. NR 665.0071 (6), (7), (8), (9), (10), (11), and (12) are created to read:

NR 665.0071 (6) An electronic manifest that is obtained, completed, and transmitted in accordance with s. NR 662.020 (1) (c), and used in accordance with this paragraph in lieu of the paper manifest form is the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in these regulations to obtain, complete, sign, provide, use, or retain a manifest. Legal equivalence to paper manifests include the following:

(a) Any requirement for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning specified in 40 CFR 262.25 and s. NR 662.025 (1).

(b) Any requirement to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person.

(c) Any requirement for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the waste shipment.

(d) Any requirement for an owner or operator to keep or retain a copy of each manifest is satisfied by the retention of the facility's electronic manifest copies in its account on the e-Manifest system, provided that the copies are readily available for viewing and production if requested by the department.

(e) No owner or operator may be held liable for the inability to produce an electronic manifest for inspection under this section if the owner or operator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the owner or operator bears no responsibility.

(7) An owner or operator may participate in the electronic manifest system either by accessing the electronic manifest system from the owner's or operator's electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the owner's or operator's site by the transporter who delivers the waste shipment to the facility.

(8) If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, all of the following procedures apply to the delivery of the hazardous waste by the final transporter:

(a) Upon delivery of the hazardous waste to the designated facility, the owner or operator shall sign and date each copy of the paper replacement manifest by hand in item 20, designated facility certification of receipt, and note any discrepancies in item 18, discrepancy indication space, of the paper replacement manifest.

(b) The owner or operator of the facility shall return one copy of the paper replacement manifest to the final transporter.

(c) Within 30 days of delivery of the waste to the designated facility, the owner or operator of the facility shall send one signed and dated copy of the paper replacement manifest to the generator, and send an additional signed and dated copy of the paper replacement manifest to the electronic manifest system.

(d) The owner or operator of the facility shall retain at the facility one copy of the paper replacement manifest for at least 3 years from the date of delivery.

(9) If an owner or operator using an electronic manifest signs this manifest electronically using an electronic signature method which is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the owner or operator shall also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator shall retain this original copy among its records for at least 3 years from the date of delivery of the waste.

(10) (a) As prescribed in 40 CFR 265.1311, and determined in 40 CFR 265.1312, an owner or operator who is a user of the electronic manifest system shall be assessed a user fee by EPA for the submission and processing of each electronic and paper manifest. EPA shall update the schedule of user fees and publish them to the user community, as provided in 40 CFR 265.1313.

(b) An owner or operator subject to user fees under this section shall make user fee payments in accordance with the requirements of 40 CFR 265.1314, subject to the informal fee dispute resolution process of 40 CFR 265.1316, and subject to the sanctions for delinquent payments under 40 CFR 265.1315.

(11) Electronic manifest signatures shall meet the criteria described in 40 CFR 262.25 and s. NR 662.025.

(12) After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person, for example the waste handler, shown on the manifest. The person submitting the corrections shall do all of the following:

(a) Interested persons must make all corrections to manifest data by electronic submission, either by directly entering corrected data to the web based service provided in e-Manifest for the corrections, or by an upload of a data file containing data corrections relating to one or more previously submitted manifests.

(b) Each correction submission shall include all of the following information:

1. The Manifest Tracking Number and date of receipt by the facility of the original manifest(s) for which data are being corrected.

2. The item numbers of the original manifest that is the subject of the submitted corrections.

3. For each item number with corrected data, the data previously entered and the corresponding data as corrected by the correction submission.

(c) Each correction submission shall include a statement that the person submitting the corrections certifies that to the best of his or her knowledge or belief, the corrections that are included in the submission will cause the information reported about the previously received hazardous wastes to be true, accurate, and complete in accordance with all of the following:

1. The certification statement must be executed with a valid electronic signature.

2. A batch upload of data corrections may be submitted under one certification statement.

(d) Upon receipt by the system of any correction submission, other interested persons shown on the manifest will be provided electronic notice of the submitter's corrections.

(e) Other interested persons shown on the manifest may respond to the submitter's corrections with comments to the submitter, or by submitting another correction to the system, certified by the respondent as specified in par. (c), and with notice of the corrections to other interested persons shown on the manifest.

SECTION 123. NR 665.0072 (1) (c), (4) (a), (5) (f), (6) (a) and (g) are amended to read:

NR 665.0072 (1) (c) Container residues, which are residues that exceed the quantity limits for empty containers set forth in s. NR ~~661.07~~ 661.0007 (2).

(4) (a) Upon rejecting waste or identifying a container residue that exceeds the quantity limits for empty containers set forth in s. NR ~~661.07~~ 661.0007 (2), the facility owner or operator shall consult with the generator prior to forwarding the waste to another facility that can manage the waste. If it is impossible to locate an alternative facility that can receive the waste, the facility owner or operator may return the rejected waste or residue to the generator. The facility owner or operator shall send the waste to the alternative facility or to the generator within 60 days of the rejection or the container residue identification.

(5) (f) Sign the generator's or offeror's certification to certify, as the offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation, and mail a signed copy of the manifest to the generator identified in item 5 of the new manifest.

(6) (a) Write the facility's EPA ID number in item 1 of the new manifest. Write the facility's name and mailing address in item 5 of the new manifest. If the mailing address is different from the facility's site address, then write the facility's site address in the designated space for ~~Item~~ item 5 of the new manifest.

(g) For full load rejections that are made while the transporter remains at the facility, the facility owner or operator may return the shipment to the generator with the original manifest by completing item 18a and 18b of the manifest and supplying the generator's information in the alternate facility space. The facility owner or operator shall retain a copy for its records and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility owner or operator shall use a new manifest and comply with pars. (a) to (f) and (h).

SECTION 124. NR 665.0072 (6) (h) is created to read:

NR 665.0072 (6) (h) For full or partial load rejections and container residues contained in non-empty containers that are returned to the generator, the facility shall also comply with the exception reporting requirements specified in s. NR 662.0042 (1).

SECTION 125. NR 665.0072 (7) is amended to read:

NR 665.0072 (7) If a facility owner or operator rejects a waste or identifies a container residue that exceeds the quantity limits for empty containers set forth in s. NR ~~661.07~~ 661.0007 (2) after it has signed, dated and returned a copy of the manifest to the delivering transporter or to the generator, the facility owner or operator shall amend its copy of the manifest to indicate the rejected wastes or residues in the discrepancy space of the amended manifest. The facility owner or operator shall also copy the manifest tracking number from item 4 of the new manifest to the discrepancy space of the amended manifest, and shall re−sign and date the manifest to certify to the information as amended. The facility owner or operator shall retain the amended manifest for at least 3 years from the date of amendment and shall, within 30 days, send a copy of the amended manifest to the transporter and generator that received copies prior to their being amended. Within 45 days, the facility owner or operator shall also send one copy of the amended manifest to the department in an electronic format specified by the department.

SECTION 126. NR 665.0090 (5) is amended to read:

NR 665.0090 (5) The groundwater monitoring requirements of this subchapter may be waived with respect to any surface impoundment that is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under s. NR ~~661.22~~ 661.0022 or are listed as hazardous wastes in subch. D of ch. NR 661 only for this reason, and contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment. The demonstration shall establish, based upon consideration of the characteristics of the wastes and the impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity characteristic before they can migrate out of the impoundment. The demonstration shall be in writing and shall be certified by a qualified professional.

SECTION 127. NR 665.0112 (4) (c) 2. is amended to read:

NR 665.0112 (4) (c) 2. Issuance of a judicial decree, department order, or final order pursuant to 42 USC 6928(h) to cease receiving waste or close.

SECTION 128. NR 665.0118 (5) (b) is amended to read:

NR 665.0118 (5) (b) Issuance of a judicial decree, ~~or~~ department order, or final order pursuant to 42 USC 6928(h) to cease receiving waste or close.

SECTION 129. NR 665.0143 (3) (h) is amended to read:

NR 665.0143 (3) (h) Following a final administrative determination by the department or EPA pursuant to 42 USC 6928 that the owner or operator has failed to perform final closure in accordance with the approved closure plan when required to do so, the department or EPA regional administrator may draw on the letter of credit.

SECTION 130. NR 665.0174 is amended to read:

NR 665.0174 ~~The~~ At least weekly, the owner or operator shall inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. See ss. NR 664.015 (3) and 664.0171 for remedial action required if deterioration or leaks are detected.

SECTION 131. NR 665.0174 (Note) is repealed.

SECTION 132. NR 665.0193 (5) (a) 5. is created to read:

NR 665.0193 (5) (a) 5. Provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concreate.

SECTION 133. NR 665.0193 (5) (b) 5. a. and b. and (6) (a) are amended to read:

NR 665.0193 (5) (b) 5. a. The definition of ignitable waste under s. NR ~~661.21~~ 661.0021.

b. The definition of reactive waste under s. NR ~~661.23~~ 661.0023 and may form an ignitable or explosive vapor.

(6) (a) Aboveground piping ~~(exclusive of flanges, joints, valves and other connections)~~ that is visually inspected for leaks on a daily basis, except for flanges, joints, valves and other connections, which must have secondary containment unless they are identified in and comply with pars. (b) to (d).

SECTION 134. NR 665.0195 (4) is repealed.

SECTION 135. NR 665.0195 (5) is created to read:

NR 665.0195 (5) Ancillary equipment that is not provided with secondary containment, as described in s. NR 665.0193 (6) (a) to (d), shall be inspected at least once each operating day.

SECTION 136. NR 665.0196 (Note 1) is amended to read:

NR 665.0196 **Note:** The department or EPA regional administrator may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order under s. 291.37 or 291.85, Stats., or 42 USC 6924 (v), 6928 (h), 6973(a), requiring corrective action or other response as deemed necessary to protect human health or the environment.

SECTION 137. NR 665.0197 (1) is amended to read:

NR 665.0197 (1) At closure of a tank system, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless s. NR ~~661.03~~ 661.0003 (4) applies. The closure plan, closure activities, cost estimates for closure and financial responsibility for tank systems shall meet all of the requirements specified in subchs. G and H.

SECTION 138. NR 665.0198 (1) (a) 1. is amended to read:

NR 665.0198 (1) (a) 1. The resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023.

SECTION 139. NR 665.0221 (4) (a) is amended to read:

NR 665.0221 (4) (a) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and the wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristic in s. NR ~~661.24~~ 661.0024, with EPA hazardous waste numbers D004 to D017.

SECTION 140. NR 665.0228 (1) (a) is amended to read:

NR 665.0228 (1) (a) Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless s. NR ~~661.03~~ 661.0003 (4) applies.

SECTION 141. NR 665.0229 (1) (a) is amended to read:

NR 665.0229 (1) (a) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023.

SECTION 142. NR 665.0256 (1) is amended to read:

NR 665.0256 (1) Addition of the waste to an existing pile results in the waste or mixture no longer meeting the definition of ignitable or reactive waste under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023, and complies with s. NR 665.0017 (2).

SECTION 143. NR 665.0258 (1) is amended to read:

NR 665.0258 (1) At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless s. NR ~~661.03~~ 661.0003 (4) applies.

SECTION 144. NR 665.0301 (4) (a) is amended to read:

NR 665.0301 (4) (a) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and the wastes do not contain constituents

which would render the wastes hazardous for reasons other than the toxicity characteristic in s. NR ~~661.24~~ 661.0024, with EPA hazardous waste numbers D004 to D017.

SECTION 145. NR 665.0312 (1) (a) is amended to read:

NR 665.0312 (1) (a) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023.

SECTION 146. NR 665.0316 (2) and (5) are amended to read:

NR 665.0316 (2) The inside containers shall be overpacked in an open head DOT-specification metal shipping container (49 CFR parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with s. NR ~~665.0314 (6)~~ 665.0314 (5), to completely sorb all of the liquid contents of the inside containers. The metal outer container shall be full after it has been packed with inside containers and sorbent material.

(5) Reactive waste, other than cyanide− or sulfide−bearing waste as defined in s. NR ~~661.23~~ 661.0023 (1) (e), shall be treated or rendered non−reactive prior to packaging in accordance with subs. (1) to (4). Cyanide− and sulfide−bearing reactive waste may be packaged in accordance with subs. (1) to (4) without first being treated or rendered non−reactive.

SECTION 147. NR 665.0340 (2) (a), (3) (b) and (d) are amended to read:

NR 665.0340 (2) (a) Except as provided by pars. (b)and (c), this chapter no longer applies when an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR part 63, subpart EEE, by conducting a comprehensive performance test and submitting ~~a~~ proof of a postmarked notification of compliance to the department under 40 CFR 63.1207 (j) and 63.1210 (d) documenting compliance with 40 CFR part 63, subpart EEE.

(3) (b) Listed as a hazardous waste in subch. D of ch. NR 661 solely because it is reactive (hazard code R) for characteristics other than those in ss. NR ~~661.23~~ 661.0023 (1) (d) and (e), and will not be burned when other hazardous wastes are present in the combustion zone.

(d) A hazardous waste solely because it possesses any of the reactivity characteristics in s. NR ~~661.23~~ 661.0023 (1) (a), (b), (c), (f), (g) or (h), and will not be burned when other hazardous wastes are present in the combustion zone.

SECTION 148. NR 665.0351 (Note) is amended to read:

NR 665.0351 **Note:** At closure, as throughout the operating period, unless the owner or operator can demonstrate, according to s. NR ~~661.03~~ 661.0003 (4), that the residue removed from the owner or operator's incinerator is not hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it according to all applicable requirements of chs. NR 662 to 666.

SECTION 149. NR 665.0381 (Note) is amended to read:

665.0381 **Note:** At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with s. NR ~~661.03~~ 661.0003 (3) or (4), that any solid waste removed from the thermal treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of chs. NR 662 and 663 and this chapter.

SECTION 150. NR 665.0404 (Note) is amended to read:

Note: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with s. NR ~~661.03~~ 661.0003 (3) or (4), that any solid waste removed from the treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of chs. NR 662 and 663 and this chapter.

SECTION 151. NR 665.0405 (1) (a) is amended to read:

NR 665.0405 (1) (a) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023.

SECTION 152. NR 665.0440 (1) is amended to read:

NR 665.0440 (1) The requirements of this subchapter apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation or surface water run−off to an associated collection system. Existing drip pads are those constructed before June 1, 1995 and those for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to June 1, 1995. All other drip pads are new drip pads.~~.~~

SECTION 153. NR 665.1030 (2) (b), (c), and (Note) are amended to read:

NR 665.1030 (2) (b) A unit (including a hazardous waste recycling unit) that is not exempt from licensing under s. NR ~~662.034 (1)~~ 662.017 (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility otherwise subject to the licensing requirements of ch. NR 670.

(c) A unit that is exempt from licensing under s. NR ~~662.034 (1)~~ 662.017 (i.e., a "90−day" tank or container) and is not a recycling unit under s. NR ~~661.06~~ 661.0006.

Note: Sections NR 665.1032 to 665.1035 apply to process vents on hazardous waste recycling units previously exempt under s. NR ~~661.06~~ 661.0006 (3) (a). Other exemptions under ss. NR ~~661.04~~ 661.0004 and 665.0001(3) are not affected by these requirements.

SECTION 154. NR 665.1050 (2) (b), (c), and (7) (Note) are amended to read:

NR 665.1050 (2) (b) A unit (including a hazardous waste recycling unit) that is not exempt from licensing under s. NR ~~662.034 (1)~~ 662.017 (i.e., a hazardous waste recycling unit that is not a "90−day" tank or container) and that is located at a hazardous waste management facility otherwise subject to the licensing requirements of ch. NR 670.

(c) A unit that is exempt from licensing under s. NR ~~662.034 (1)~~ 662.017 (i.e., a "90−day" tank or container) and is not a recycling unit under s. NR ~~661.06~~ 661.0006.

(7) **Note**: Sections NR 665.1052 to 665.1064 apply to equipment associated with hazardous waste recycling units previously exempt under s. NR ~~661.06~~ 661.0006 (3) (a). Other exemptions under ss. NR ~~661.04~~ 661.0004 and 665.0001(3) are not affected by these requirements.

SECTION 155. NR 665.1057 (8) (Note) is created to read:

NR 665.1057 (8) **Note:** The equivalent federal RCRA regulations have a compliance date of June 1, 1990, based on when those rules took effect. The Wisconsin rules, initially promulgated in CR 94-076, became effective on June 1, 1995.

SECTION 156. NR 665.1063 (2) (d) 2. is amended to read:

NR 665.1063 (2) (d) 2. A mixture of methane or n-hexane and air at a concentration of approximately, but less than, ~~10.000~~ 10,000 ppm methane or n-hexane.

SECTION 157. NR 665.1064 (13) is amended to read:

NR 665.1064 (13) The owner or operator of a facility with equipment that is subject to this subchapter and to 40 CFR part 60, 61 or 63, or to corresponding provisions of ch. NR 440, subch. III of ch. NR 446 and chs. NR 447 to 469, may elect to determine compliance with this subchapter either by documentation pursuant to this section, or by documentation of compliance with 40 CFR part 60, 61 or 63, or with corresponding provisions of ch. NR 440, subch. III of ch. NR 446 and chs. NR 447 to 469, pursuant to the relevant provisions of 40 CFR part 60, 61 or 63, or the corresponding provisions of ch. NR 440, subch. III of ch. NR 446 and chs. NR 447 to 469. ~~Keep~~ The owner or operator shall keep the documentation of compliance ~~with~~ required by 40 CFR part 60, 61 or 63, or corresponding provisions of ch. NR 440, subch. III of ch. NR 446 and chs. NR 447 to 469~~, or make it~~ readily available with the facility operating record.

SECTION 158. NR 665.1087 (3) (c) 2., (d) 1., (4) (c) 2., and (d) 1. are amended to read:

NR 665.1087 (3) (c) 2. a. For the purpose of meeting the requirements of this section, an empty container as defined in s. NR ~~661.07~~ 661.0007 (2) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

b. In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container in s. NR ~~661.07~~ 661.0007 (2), promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(d) 1. In the case when hazardous waste is already in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., does not meet the conditions for an empty container in s. NR ~~661.07~~ 661.0007 (2)), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. ~~Conduct the container visual inspection on or before the date that the container is accepted at the facility~~ The container visual inspection shall be conducted on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to ~~this subchapter~~ subpart CC container standards). For purposes of this subdivision, the date of acceptance is the date of signature that the facility owner or operator enters on item 20 of the uniform hazardous waste manifest (EPA forms 8700-22 and 8700-22A), as required in s. NR 665.0071. If a defect is detected, the owner or operator shall repair the defect according to subd. 3.

(4) (c) 2. a. For the purpose of meeting the requirements of this section, an empty container as defined in s. NR ~~661.07~~ 661.0007 (2) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

b. In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container in s. NR ~~661.07~~ 661.0007 (2), promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(d) 1. In the case when hazardous waste is already in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., does not meet the conditions for an empty container in s. NR ~~661.07~~ 661.0007 (2)), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps or other open spaces into the interior of the container when the cover and closure devices

are secured in the closed position. ~~Conduct the container visual inspection on or before the date that the container is accepted at the facility~~ The container visual inspection shall be conducted on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to the subpart CC container standards in this subchapter). For purposes of this subdivision, the date of acceptance is the date of signature that the facility owner or operator enters on item 20 of the uniform hazardous waste manifest (EPA forms 8700−22 and 8700−22A), as required in s. NR 665.0071. If a defect is detected, the owner or operator shall repair the defect according to subd. 3..

SECTION 159. NR 665.1088 (3) (f) is amended to read:

NR 665.1088 (3) (f) If the owner or operator and the department do not agree on a demonstration of control device performance using a design analysis, resolve the disagreement using the results of a performance test performed by the owner or operator according to par. (e) 3.~~.~~ The department may choose to have an authorized representative observe the performance test.

SECTION 160. NR 665.1101 (3) (d) is amended to read:

NR 665.1101 (3) (d) Inspect and record in the ~~facility's~~ facility operating record, at least once every 7 days, data gathered from monitoring equipment and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

SECTION 161. NR 665.1102 (1) is amended to read:

NR 665.1102 (1) At closure of a containment building, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless s. NR ~~661.03~~ 661.0003 (4) applies. The closure plan, closure activities, cost estimates for closure and financial responsibility for containment buildings shall meet all of the requirements specified in subchs. G and H.

SECTION 162. NR 665.1202 (1) is amended to read:

NR 665.1202 (1) At closure of a magazine or unit which stored hazardous waste under this subchapter, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, contaminated subsoils, and structures and equipment contaminated with waste, and manage them as hazardous waste unless s. NR ~~661.03~~ 661.0003 (4) applies. The closure plan, closure activities, cost estimates for closure and financial responsibility for magazines or units shall meet all of the requirements specified in subchs. G and H, except that the owner or operator may defer closure of the unit as long as it remains in service as a munitions or explosives magazine or storage unit.

SECTION 163. NR 666.020 (2) and (4) (a) are amended to read:

NR 666.020 (2) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently regulated if the recyclable materials have undergone a chemical reaction in the course of producing the products so as to become inseparable by physical means and if the products meet the applicable treatment standards in subch. D of ch. NR 668 (or applicable prohibition levels in s. NR 668.32, where no treatment standards have been established) for each recyclable material (i.e., hazardous waste) that they contain, and the recycler complies with s. NR 668.07 (2) (f).

(4) (a) They are zinc fertilizers excluded from the definition of solid waste according to s. NR ~~661.04~~ 661.0004 (1) (u).

SECTION 164. NR 666.022 is amended to read:

NR 666.022 **Standards applicable to storers of materials that are to be used in a manner that constitutes disposal who are not the ultimate users.** Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated under all applicable provisions of subchs. A to L of chs. NR 664, ~~and~~ 665, 667, and ~~ch. NR~~ 670 and the notification requirement under s. NR 660.07.

SECTION 165. NR 666.023 (2) (Note) is created to read:

NR 666.023 (2) **Note:** See s. NR 679.82 regarding used oil as a dust suppressant.

SECTION 166. NR 666.070 (2) (c), (3) and (4) are amended to read:

NR 666.070 (2) (c) For precious metals exported to or imported from ~~designated OECD member~~ other countries for recovery, ~~persons who generate, transport or store recyclable materials are subject to~~ subch. H of ch. NR 662 and s. NR 665.0012 ~~(1) (b). For precious metals exported to or imported from non-OECD countries for recovery, persons who generate, transport or store recyclable materials are subject to subchs. E and F of ch. NR 662~~.

(3) Persons who store recycled materials that are regulated under this subchapter shall keep all of the following records to document that they are not accumulating these materials speculatively (as defined in s. NR ~~661.01~~ 661.0001 (3)):

(4) Recyclable materials that are regulated under this subchapter that are accumulated speculatively (as defined in s. NR ~~661.01~~ 661.0001 (3)) are subject to all applicable provisions of chs. NR 662 to 665, 667 and 670.

SECTION 167. NR 666.080 (1) is repealed and recreated to read:

NR 666.080 **Applicability and requirements.** (1) A person that generates, collects, transports, stores or regenerates lead-acid batteries for reclamation purposes may be exempt from certain hazardous waste management requirements. Use the following table to determine which requirements apply. Alternatively, spent lead-acid batteries may be managed under ch. NR 673, the "Universal Waste" rule.

Note: In addition to the requirements under this subchapter or ch. NR 673, s. 287.18, Stats., applies to persons who sell lead-acid batteries.

If your batteries * * *	And if you * * *	Then you * * *	And you * * *
(a) Will be reclaimed through regeneration (such as by electrolyte replacement).		are exempt from chs. NR 662 (except for s. NR 662.011), 663, 664, 665, 666, 668, and 670, and the notification requirements at s. NR 660.07.	are subject to ch. NR 661 and s. NR 662.011.
(b) Will be reclaimed other than through regeneration.	generate, collect or transport these batteries.	are exempt from chs. NR 662 (except for s. NR 662.011), 663, 664, 665, 666, and 670, and the notification requirements at s. NR 660.07	are subject to ch. NR 661, s. NR 662.011, and applicable provisions under ch. 668.
(c) Will be reclaimed other than through regeneration.	store these batteries but you aren't the reclaimer.	are exempt from chs. NR 662 (except for s. NR 662.011), 663, 664, 665, 666, and 670, and the notification requirements at s. NR 660.07.	are subject to ch. NR 661, s. NR 662.011, and applicable provisions under ch. NR 668.
(d) Will be reclaimed other than through regeneration.	store these batteries before you reclaim them.	shall comply with sub. (2) and as appropriate other regulatory provisions described in s. NR 666.080(2).	are subject to ch. NR 661, s. NR 662.011, and applicable provisions under ch. NR 668.
(e) Will be reclaimed other than through regeneration.	don't store these batteries before you reclaim them.	are exempt from chs. NR 662 (except for s. NR 662.011), 663, 664, 665, 666, and 670, and the notification requirements at s. NR 660.07.	are subject to ch. NR 661, s. NR 662.011, and applicable provisions under ch. NR 668.
(f) Will be reclaimed through regeneration or any other means	export these batteries for reclamation in a foreign country	are exempt from chs. NR 662 (except for ss. NR 662.011, 662.018, and subch. H), 663, 664, 665, 666, 668, 670, and the notification requirements s. NR 660.0007.	are subject to ch. NR 661, ss. NR 662.011, 662.018, and ch. NR 662, subch. H.

(g) Will be reclaimed through regeneration or any other means	Transport these batteries in the U.S. to export them for reclamation in a foreign country	are exempt from chs. NR 663, 664, 665, 666, 668, 670, and the notification requirements at s. NR 660.07.	must comply with applicable requirements in ch. NR 662, subpart H.
(h) Will be reclaimed other than through regeneration	Import these batteries from foreign country and store these batteries but you aren't the reclaimer	are exempt from chs. NR 662 (except for ss. NR 662.011, 662.018, and subch. H), 663, 664, 665, 666, 670, and the notification requirements at s. NR 660.07.	are subject to ch. NR 661, ss. NR 662.011, 662.018, ch. NR 662 subch. H, and applicable provisions under ch. NR 668.
(i) Will be reclaimed other than through regeneration	Import these batteries from foreign country and store these batteries before you reclaim them	must comply with chs. NR 666.080 (2) and as appropriate other regulatory provisions described in 666.080 (2)	are subject to ch. NR 661, ss. NR 662.011, 662.018, ch. NR 662 subch. H, and applicable provisions under ch. NR 668.
(j) Will be reclaimed other than through regeneration	Import these batteries from foreign country and don't store these batteries before you reclaim them	are exempt from chs. NR 662 (except for ss. NR 662.011, 662.018 and subch. H), 663, 664, 665, 666, 670, and the notification requirements at s. NR 660.07.	are subject to ch. NR 661, ss. NR 662.011, 662.018, ch. NR 662 subch. H, and applicable provisions under ch. NR 668

SECTION 168. NR 666.080 (2) (a) 8. and (b) 8. are created to read:

NR 666.080 (2) (a) 8. All applicable provisions under ch. NR 667.

(b) 8. All applicable provisions under ch. NR 667.

SECTION 169. NR 666.100 (3) (c) and (4) (c) 1. b. are amended to read:

NR 666.100 (3) (c) Hazardous wastes that are exempt from regulation under ss. NR ~~661.04~~ 661.0004 and ~~661.06~~ 661.0006 (1) (c) 3. and 4., and hazardous wastes that are subject to the special requirements for ~~conditionally exempt~~ very small quantity generators under ~~s. NR 662.220~~ ss. NR 662.013 and 662.014.

(4) (c) 1. b. The waste does not exhibit the toxicity characteristic specified in ~~of~~ s. NR ~~661.24~~ 661.0024 for an organic constituent.

SECTION 170. NR 666.101 (3) is amended to read:

NR 666.101 (3) STORAGE AND TREATMENT FACILITIES. (a) Owners and operators of facilities that store or treat hazardous waste that is burned in a boiler or industrial furnace are subject to the applicable provisions of chs. NR 664, 665, 667 and 670, except as provided by sub. (3) (b). These standards apply to storage and treatment by the burner as well as to storage and treatment facilities operated by intermediaries (processors, blenders, distributors, etc.) between the generator and the burner.

(b) Owners and operators of facilities that burn, in an ~~onsite~~ on-site boiler or industrial furnace exempt from regulation under the small quantity burner provisions of s. NR 666.108, hazardous waste that they generate are exempt from the regulations of chs. NR 664, 665, 667 and 670 applicable to storage units for those storage units that store mixtures of hazardous waste and the primary fuel to the boiler or industrial furnace in tanks that feed the fuel mixture directly to the burner. Storage of hazardous waste prior to mixing with the primary fuel is subject to regulation as prescribed in par. (a).

SECTION 171. NR 666.103 (1) (f) 4. and (3) (d) are amended to read:

NR 666.103 (1) (f) 4. Such waste may be burned in a halogen acid furnace if the waste was burned as an excluded ingredient under s. NR ~~661.02~~ 661.0002 (5) prior to February 21, 1991 and documentation is kept on file supporting this claim.

(3) (d) *Certification of compliance.* Within 90 days of completing compliance testing, the owner or operator shall certify to the department compliance with the emissions standards of ss. NR 666.104 (2), (3) and (5), 666.105, 666.106, 666.107 and sub. (1) (e) 1. d.~~.~~ The certification of compliance shall include all of the following information:

SECTION 172. NR 666.108 (3) (Note) is amended to read:

NR 666.108 (3) **Note:** Hazardous wastes that are subject to the special requirements for small quantity generators under ~~s. NR 662.220~~ ss. NR 662.013 and 662.016 may be burned in an off−site device under the exemption provided by this section, but shall be included in the quantity determination for the exemption.

SECTION 173. NR 666.112 (1) (b) and (2) (b) 2. are amended to read:

NR 666.112 (1) (b) *Ore or mineral furnaces.* Industrial furnaces subject to s. NR ~~661.04~~ 661.0004 (2) (g) shall process at least 50% by weight normal, nonhazardous raw materials.

(2) (b) 2. 'Metal constituents.' The concentration of metals in an extract obtained using the toxicity characteristic leaching procedure of s. NR ~~661.24~~ 661.0024 may not exceed the levels specified in ch. NR 666 Appendix VII.

SECTION 174. NR 666.202 (1) (b) and (4) are amended to read:

NR 666.202 (1) (b) It is an unused munition, or component thereof, which is being repaired, reused, recycled, reclaimed, disassembled, reconfigured or otherwise subjected to materials recovery activities, unless the activities involve use constituting disposal as defined in s. NR ~~661.02~~ 661.0002 (3) (a), or burning for energy recovery as defined in s. NR ~~661.02~~ 661.0002 (3) (b).

(4) For purposes of s. 289.01 (33), Stats., a used or fired military munition is a solid waste, and, therefore, is potentially subject to corrective action authorities under ss. 291.37, 291.95 and 291.97, Stats., 42 USC 6924(u) and (v) and 6928(h), and subch. S of ch. NR 664, or imminent danger authorities under s. 291.85, Stats., or 42 USC 6973(a), if the munition lands off-range and is not promptly rendered safe or retrieved. Any imminent danger threats associated with any remaining material shall be addressed. If remedial action is infeasible, the operator of the range shall maintain a record of the event for as long as any threat remains. The record shall include the type of ammunition and its location ~~(~~to the extent the location is known~~)~~.

SECTION 175. NR 666.210 (4) and (5) are amended to read:

NR 666.210 (4) "Exempted waste" means a waste that meets the eligibility criteria in s. NR 666.225 and meets all of the conditions in s. NR 666.230, or meets the eligibility criteria in s. NR 666.310 and complies with all of the conditions in s. NR 666.315. That waste is conditionally exempted from the regulatory definition of hazardous waste described in s. NR ~~661.03~~ 661.0003.

(5) "Hazardous waste" means any material which is defined to be hazardous waste in accordance with s. NR ~~661.03~~ 661.0003.

SECTION 176. NR 666.220 is amended to read:

NR 666.220 **What does a storage and treatment conditional exemption do?** The storage and treatment conditional exemption exempts your low−level mixed waste from the regulatory definition of hazardous waste in s. NR ~~661.03~~ 661.0003 if your waste meets the eligibility criteria in s. NR 666.225 and you meet the conditions in s. NR 666.230.

SECTION 177. NR 666.255 (1) is amended to read:

NR 666.255 (1) When your LLMW has met the requirements of your NRC or NRC agreement state license for decay−in−storage and can be disposed of as non−radioactive waste, then the conditional exemption for storage no longer applies. On that date your waste is subject to hazardous waste regulation under the relevant sections of chs. NR 660 to 670, and the time period for accumulation of a hazardous waste as specified in s. NR ~~662.034~~ 662.16 or 662.17 begins.

SECTION 178. NR 666.305 is amended to read:

NR 666.305 **What does the transportation and disposal conditional exemption do?** This conditional exemption exempts your waste from the regulatory definition of hazardous waste in s. NR ~~661.03~~ 661.0003 if your waste meets the eligibility criteria under s. NR 666.310, and you meet the conditions in s. NR 666.315.

SECTION 179. NR 666 Subchapter P is created to read:

Subchapter P—Hazardous Waste Pharmaceuticals

NR 666.500 Definitions. The following definitions apply to this subchapter:

(1) "Evaluated hazardous waste pharmaceutical" means a prescription hazardous waste pharmaceutical that has been evaluated by a reverse distributor in accordance with s. NR 666.510 (1) (c) and will not be sent to another reverse distributor for further evaluation or verification of manufacture credit.

(2) "Hazardous waste pharmaceutical" means a pharmaceutical that is a solid waste, as defined in s. NR 661.0002, and exhibits one or more characteristics identified in subch. C of ch. NR 661 or is listed in subch. D of ch. NR 661. A pharmaceutical is not a solid waste, as defined in s. NR 661.0002, and therefore not a hazardous waste pharmaceutical, if it is legitimately used,

reused, for example lawfully donated for its intended purpose, or reclaimed. An over-the-counter pharmaceutical, dietary supplement, or homeopathic drug is not a solid waste, as defined in s. NR 661.0002, and therefore not a hazardous waste pharmaceutical, if it has a reasonable expectation of being legitimately used, reused, for example lawfully redistributed for its intended purpose, or reclaimed.

(3) "Healthcare facility" means any person that is lawfully authorized to do any of the following:

(a) Provide preventative, diagnostic, therapeutic, rehabilitative, maintenance or palliative care, and counseling, service, assessment or procedure with respect to the physical or mental condition, or functional status, of a human or animal or that affects the structure or function of the human or animal body.

(b) Distribute, sell, or dispense pharmaceuticals, including over-the-counter pharmaceuticals, dietary supplements, homeopathic drugs, or prescription pharmaceuticals. Including wholesale distribution, third-party logistics that serving as forward distributors, military medical logistics facilities, hospitals, psychiatric hospitals, ambulatory surgical centers, health clinics, physicians' offices, optical and dental providers, chiropractors, long-term care facilities, ambulance services, pharmacies, long-term care pharmacies, mail-order pharmacies, retailers of pharmaceuticals, veterinary clinics, and veterinary hospitals. This definition does not include pharmaceutical manufacturers, reverse distributors, or reverse logistics centers.

(4) "Household waste pharmaceutical" means a pharmaceutical that is a solid waste, as defined in s. NR 661.0002, but is excluded from being a hazardous waste under s. NR 661.0004 (2) (a).

(5) "Long-term care facility" means a licensed entity that provides assistance with activities of daily living, including managing and administering pharmaceuticals to one or more individuals at the facility. This definition includes hospice facilities, nursing facilities, skilled nursing facilities, and the nursing and skilled nursing care portions of continuing care retirement communities. Not included within the scope of this definition are group homes, independent living communities, assisted living facilities, and the independent and assisted living portions of continuing care retirement communities.

(6) "Non-creditable hazardous waste pharmaceutical" means a prescription hazardous waste pharmaceutical that does not have a reasonable expectation to be eligible for manufacturer

credit or a nonprescription hazardous waste pharmaceutical that does not have a reasonable expectation to be legitimately used, reused, or reclaimed. This includes investigational drugs, free samples of pharmaceuticals received by healthcare facilities, residues of pharmaceuticals remaining in empty containers, contaminated personal protective equipment, floor sweepings, and clean-up material from the spills of pharmaceuticals.

(7) "Non-hazardous waste pharmaceutical" means a pharmaceutical that is a solid waste, as defined in s. NR 661.0002, and is not listed in subch. D of ch. NR 661, and does not exhibit a characteristic identified in subch. C of ch. NR 661.

(8) "Non-pharmaceutical hazardous waste" means a solid waste, as defined in s. NR 661.0002, that is listed in subch. D of ch. NR 661, or exhibits one or more characteristics identified in subch. C of ch. NR 661, but is not a pharmaceutical, as defined in this section.

(9) "Pharmaceutical"' means any drug or dietary supplement for use by humans or other animals; any electronic nicotine delivery system, for example electronic cigarette or vaping pen; or any liquid nicotine, or e-liquid, packaged for retail sale for use in electronic nicotine delivery systems, such pre-filled cartridges or vials. This definition includes dietary supplements, as defined by the federal food, drug and cosmetic act; prescription drugs, as defined by 21 CFR 203.3 (y); over-the-counter drugs; homeopathic drugs; compounded drugs; investigational new drugs; pharmaceuticals remaining in non-empty containers; personal protective equipment contaminated with pharmaceuticals; and clean-up material from spills of pharmaceuticals. This definition does not include dental amalgam or sharps.

(10) "Potentially creditable hazardous waste pharmaceutical" means a prescription hazardous waste pharmaceutical that is all of the following:

(a) Has a reasonable expectation to receive manufacturer credit.

(b) Is in original manufacturer packaging, except pharmaceuticals that were subject to a recall.

(c) Is undispensed.

(d) Is unexpired or less than one year past expiration date.

(e) The term does not include evaluated hazardous waste pharmaceuticals or nonprescription pharmaceuticals including over-the-counter drugs, homeopathic drugs, and dietary supplements.

(11) "Reverse distributor" means any person that receives and accumulates prescription pharmaceuticals that are potentially creditable hazardous waste pharmaceuticals for the purpose of facilitating or verifying manufacturer credit. Any person, including forward distributors, third-party logistics providers, and pharmaceutical manufacturers, that processes prescription pharmaceuticals for the facilitation or verification of manufacturer credit is considered a reverse distributor.

NR 666.501 Applicability. (1) A healthcare facility that is a very small quantity generator when counting all of its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, remains subject to s. NR 662.014 and is not subject to this subchapter, except for ss. 666.505 and 666.507 and the optional provisions under s. NR 666.504.

(2) A healthcare facility that is a very small quantity generator when counting all of its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, has the option of complying with s. NR 666.501 (4) for the management of its hazardous waste pharmaceuticals as an alternative to complying with s. NR 662.014 and the optional provisions under s. NR 666.504.

(3) A healthcare facility or reverse distributor remains subject to all applicable hazardous waste regulations with respect to the management of its non-pharmaceutical hazardous waste.

(4) With the exception of healthcare facilities identified in sub. (1), a healthcare facility is subject to the all of the following in lieu of chs. NR 662 to 665:

(a) Sections NR 666.502 and 666.505 to 666.508 of this subchapter with respect to the management of all of the following:

1. Non-creditable hazardous waste pharmaceuticals.

2. Potentially creditable hazardous waste pharmaceuticals if they are not destined for a reverse distributor.

(b) Sections NR 662.502 (1), 666.503, 666.505 to 666.507, and 666.509 with respect to the management of potentially creditable hazardous waste pharmaceuticals that are prescription pharmaceuticals and are destined for a reverse distributor.

(5) A reverse distributor is subject to ss. NR 666.505 to 666.510 of this subchapter in lieu of chs. NR 662 to 665 with respect to the management of hazardous waste pharmaceuticals.

(6) Hazardous waste pharmaceuticals generated or managed by entities other than healthcare facilities and reverse distributors, for example pharmaceutical manufacturers and reverse logistics centers, are not subject to this subchapter. Other generators are subject to ch. NR 662 for the generation and accumulation of hazardous wastes, including hazardous waste pharmaceuticals.

(7) All of the following are not subject to chs. NR 660 to 673, except as specified:

(a) Pharmaceuticals that are not solid waste, as defined in s. NR 661.0002, because they are legitimately used or reused. For example, lawfully donated for their intended purpose or reclaimed.

(b) Over-the-counter pharmaceuticals, dietary supplements, or homeopathic drugs that are not solid wastes, as defined in s. NR 661.0002, because they have a reasonable expectation of being legitimately used or reused. For example, lawfully redistributed for their intended purpose, or reclaimed.

(c) Pharmaceuticals being managed in accordance with a recall strategy that has been approved by the food and drug administration in accordance with 21 CFR part 7 subpart C. This subchapter does apply to the management of the recalled hazardous waste pharmaceuticals after the food and drug administration approves the destruction of the recalled items.

(d) Pharmaceuticals being managed in accordance with a recall corrective action plan that has been accepted by the consumer product safety commission in accordance with 16 CFR part 1115. This subchapter does apply to the management of the recalled hazardous waste pharmaceuticals after the consumer product safety commission approves the destruction of the recalled items.

(e) Pharmaceuticals stored according to a preservation order, or during an investigation or judicial proceeding until after the preservation order, investigation, or judicial proceeding has concluded or a decision is made to discard the pharmaceuticals.

(f) Investigational new drugs for which an investigational new drug application is in effect in accordance with the food and drug administration's regulations in 21 CFR part 312. This subchapter does apply to the management of the investigational new drug after the decision is made to discard the investigational new drug or the food and drug administration approves the destruction of the investigational new drug, if the investigational new drug is a hazardous waste.

(g) Household waste pharmaceuticals, including those that have been collected by an authorized collector, as defined by the drug enforcement administration, provided the authorized collector complies with the conditional exemption under s. NR 666.506 (1) (b) and (2).

NR 666.502 Standards for healthcare facilities managing non-creditable hazardous waste pharmaceuticals.

(1) NOTIFICATION AND WITHDRAWAL FROM THIS SUBCHAPTER FOR HEALTHCARE FACILITIES MANAGING HAZARDOUS WASTE PHARMACEUTICALS.

(a) *Notification.* A healthcare facility shall notify the department, using the site identification form, EPA form 8700-12, that it is a healthcare facility operating under this subchapter. A healthcare facility is not required to fill out box 10.B., waste codes for federally regulated hazardous waste, of the site identification form with respect to its hazardous waste pharmaceuticals. A healthcare facility shall submit a separate notification, using a site identification form, for each site or EPA identification number.

1. A healthcare facility that already has an EPA identification number shall notify the department, using the site identification form EPA form 8700-12, that it is a healthcare facility as part of its next annual report, if it is required to submit one; or if not required to submit an annual report, within 60 calendar days of the effective date of this subchapter, or within 60 calendar days of becoming subject to this subchapter.

2. A healthcare facility that does not have an EPA identification number shall obtain one by notifying the department, using the site identification form EPA form 8700-12, that it is a healthcare facility as part of its next annual report, if it is required to submit one; or if not required to submit an annual report, within 60 calendar days of the effective date of this subchapter, or within 60 calendar days of becoming subject to this subchapter.

3. A healthcare facility shall keep a copy of its notification on file for as long as the healthcare facility is subject to this subchapter.

(b) *Withdrawal.* A healthcare facility that operated under this subchapter but is no longer subject to this subchapter, because it is a very small quantity generator under s. NR 662.014, and elects to withdraw from this subchapter, shall notify the department using the site identification form EPA form 8700-12 that it is no longer operating under this subchapter. A healthcare facility is not required to fill out box 10.B., waste codes for federally regulated hazardous waste,

of the site identification form with respect to its hazardous waste pharmaceuticals. A healthcare facility shall submit a separate notification, using a site identification form, for each EPA identification number.

1. A healthcare facility shall submit the site identification form notifying that it is withdrawing from this subchapter before it begins operating under the conditional exemption under s. NR 662.014.

2. A healthcare facility shall keep a copy of its withdrawal on file for 3 years from the date of signature on the notification of its withdrawal.

(2) TRAINING OF PERSONNEL MANAGING NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS AT HEALTHCARE FACILITIES. A healthcare facility shall ensure that all personnel that manage non-creditable hazardous waste pharmaceuticals are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

(3) HAZARDOUS WASTE DETERMINATION FOR NON-CREDITABLE PHARMACEUTICALS. A healthcare facility that generates a solid waste that is a non-creditable pharmaceutical shall determine whether that pharmaceutical is a hazardous waste pharmaceutical, because it exhibits a characteristic identified in ch. NR 661 subchapter C or is listed in ch. NR 661 subchapter D, in order to determine whether the waste is subject to this subchapter. A healthcare facility may choose to manage its non-hazardous waste pharmaceuticals as non-creditable hazardous waste pharmaceuticals under this subchapter.

(4) STANDARDS FOR CONTAINERS USED TO ACCUMULATE NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS AT HEALTHCARE FACILITIES. (a) A healthcare facility shall place non-creditable hazardous waste pharmaceuticals in a container that is structurally sound, compatible with its contents, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(b) A healthcare facility that manages ignitable or reactive non-creditable hazardous waste pharmaceuticals, or that mixes or commingles incompatible non-creditable hazardous waste pharmaceuticals shall manage the container so that it does not have the potential to do any of the following:

1. Generate extreme heat or pressure, fire or explosion, or violent reaction.

2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health.

3. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions.

4. Damage the structural integrity of the container of non-creditable hazardous waste pharmaceuticals.

5. Threaten human health or the environment through other like means.

(c) A healthcare facility shall keep containers of non-creditable hazardous waste pharmaceuticals closed and secured in a manner that prevents unauthorized access to its contents.

(d) A healthcare facility may accumulate non-creditable hazardous waste pharmaceuticals and non-hazardous non-creditable waste pharmaceuticals in the same container, except that non-creditable hazardous waste pharmaceuticals prohibited from being combusted because of the dilution prohibition under s. NR 668.03 (3) shall be accumulated in separate containers and labeled with all applicable hazardous waste numbers, or hazardous waste codes.

(5) LABELING CONTAINERS USED TO ACCUMULATE NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS AT HEALTHCARE FACILITIES. A healthcare facility shall label or clearly mark each container of non-creditable hazardous waste pharmaceuticals with the phrase “Hazardous Waste Pharmaceuticals.”

(6) MAXIMUM ACCUMULATION TIME FOR NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS AT HEALTHCARE FACILITIES. (a) A healthcare facility may accumulate non-creditable hazardous waste pharmaceuticals on-site for one year or less without a license or having interim status.

(b) A healthcare facility that accumulates non-creditable hazardous waste pharmaceuticals on-site shall demonstrate the length of time that the non-creditable hazardous waste pharmaceuticals have been accumulating, starting from the date it first becomes a waste. A healthcare facility may make this demonstration by any of the following methods:

1. Marking or labeling the container of non-creditable hazardous waste pharmaceuticals with the date that the non-creditable hazardous waste pharmaceuticals became a waste.

2. Maintaining an inventory system that identifies the date the non-creditable hazardous waste pharmaceuticals being accumulated first became a waste.

3. Placing the non-creditable hazardous waste pharmaceuticals in a specific area and identifying the earliest date that any of the non-creditable hazardous waste pharmaceuticals in the area became a waste.

(7) LAND DISPOSAL RESTRICTIONS FOR NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS. The non-creditable hazardous waste pharmaceuticals generated by a healthcare facility are subject to the land disposal restrictions under ch. NR 668. A healthcare facility that generates non-creditable hazardous waste pharmaceuticals shall comply with the land disposal restrictions in accordance with s. NR 668.07 (1) requirements, except that it is not required to identify the hazardous waste numbers or hazardous waste codes on the land disposal restrictions notification.

(8) PROCEDURES FOR HEALTHCARE FACILITIES FOR MANAGING REJECTED SHIPMENTS OF NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS. A healthcare facility that sends a shipment of non-creditable hazardous waste pharmaceuticals to a designated facility with the understanding that the designated facility can accept and manage the waste, and later receives that shipment back as a rejected load in accordance with the manifest discrepancy provisions under s. NR 664.0072 or 665.0072 may accumulate the returned non-creditable hazardous waste pharmaceuticals on-site for up to an additional 90 calendar days provided the rejected or returned shipment is managed in accordance with subs. (4) and (5). Upon receipt of the returned shipment, the healthcare facility shall do all of the following:

(1) Sign one of the following:

1. Item 18c of the original manifest, if the original manifest was used for the returned shipment.

2. Item 20 of the new manifest, if a new manifest was used for the returned shipment.

(2) Provide the transporter a copy of the manifest.

(3) Within 30 calendar days of receipt of the rejected shipment, send a copy of the manifest to the designated facility that returned the shipment to the healthcare facility.

(4) Within 90 calendar days of receipt of the rejected shipment, transport or offer for transport the returned shipment in accordance with the shipping standards under s. NR 666.508 (1).

(9) REPORTING BY HEALTHCARE FACILITIES FOR NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS. (a) *Annual reporting by healthcare facilities.*

A healthcare facility is not subject to annual reporting requirements under s. NR 662.041 with respect to non-creditable hazardous waste pharmaceuticals managed under this subchapter.

(b) *Exception reporting by healthcare facilities for a missing copy of the manifest.*

1. 'Shipments from a healthcare facility to a designated facility.' For shipments from a healthcare facility to a designated facility, all of the following exception reporting requirements apply:

a. If a healthcare facility does not receive a copy of the manifest with the signature of the owner or operator of the designated facility within 60 calendar days of the date the non-creditable hazardous waste pharmaceuticals were accepted by the initial transporter, the healthcare facility shall submit all of the following:

1) A legible copy of the original manifest, indicating that the healthcare facility has not received confirmation of delivery, to the department.

2) A handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received and explaining the efforts taken to locate the non-creditable hazardous waste pharmaceuticals and the results of those efforts.

2. 'Shipments rejected by the designated facility and shipped to an alternate facility.' For shipments rejected by the designated facility and shipped to an alternate facility, all of the following exception reporting requirements apply:

a. If a healthcare facility does not receive a copy of the manifest for a rejected shipment of the non-creditable hazardous waste pharmaceuticals that is forwarded by the designated facility to an alternate facility using appropriate manifest procedures, with the signature of the owner or operator of the alternate facility, within 60 calendar days of the date the non-creditable hazardous waste was accepted by the initial transporter forwarding the shipment of non-creditable hazardous waste pharmaceuticals from the designated facility to the alternate facility, the healthcare facility shall submit all of the following:

1) A legible copy of the original manifest, indicating that the healthcare facility has not received confirmation of delivery, to the department.

2) A handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received and explaining the efforts taken to locate the non-creditable hazardous waste pharmaceuticals and the results of those efforts.

(c) *Additional reports.* The department may require healthcare facilities to furnish additional reports concerning the quantities and disposition of non-creditable hazardous waste pharmaceuticals.

(10) RECORDKEEPING BY HEALTHCARE FACILITIES FOR NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS. (a) A healthcare facility shall keep a copy of each manifest signed in accordance with s. NR 662.023 (1) for 3 years or until it receives a signed copy from the designated facility that received the non-creditable hazardous waste pharmaceuticals. This signed copy shall be retained as a record for at least 3 years from the date the waste was accepted by the initial transporter.

(b) A healthcare facility shall keep a copy of each exception report for a period of at least 3 years from the date of the report.

(c) A healthcare facility shall keep records of any test results, waste analyses, or other determinations made to support its hazardous waste determination consistent with s. NR 662.011 (6), for at least 3 years from the date the waste was last sent to on-site or off-site treatment, storage, or disposal. A healthcare facility that manages all of its non-creditable non-hazardous waste pharmaceuticals as non-creditable hazardous waste pharmaceuticals is not required to keep documentation of hazardous waste determinations.

(d) The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the department.

(e) All records shall be readily available upon request by the depertment.

(11) RESPONSE TO SPILLS OF NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS AT HEALTHCARE FACILITIES. A healthcare facility shall immediately contain all spills of non-creditable hazardous waste pharmaceuticals and manage the spill clean-up materials as non-creditable hazardous waste pharmaceuticals in accordance with the requirements of this subchapter.

(12) ACCEPTING NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS FROM AN OFF-SITE HEALTHCARE FACILITY THAT IS A VERY SMALL QUANTITY GENERATOR. A healthcare facility may accept non-creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity

generator under s. NR 662.014, without a license or without having interim status, provided the receiving healthcare facility meets all of the following:

(a) Is under the control of the same person, as defined in s, NR 660.10 (90), as the very small quantity generator healthcare facility that is sending the non-creditable hazardous waste pharmaceuticals off-site, or has a contractual or other documented business relationship whereby the receiving healthcare facility supplies pharmaceuticals to the very small quantity generator healthcare facility. "Control," for the purposes of this section, means the power to direct the policies of the healthcare facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate healthcare facilities on behalf of a different person as defined in s. NR 660.10 shall not be deemed to "control" such healthcare facilities.

(b) Is operating under this subchapter for the management of its non-creditable hazardous waste pharmaceuticals.

(c) Manages the non-creditable hazardous waste pharmaceuticals that it receives from off-site in compliance with this subchapter.

(d) Keeps records of the non-creditable hazardous waste pharmaceuticals shipments it receives from off-site for 3 years from the date that the shipment is received.

NR 666.503 Standards for healthcare facilities managing potentially creditable hazardous waste pharmaceuticals.

(1) HAZARDOUS WASTE DETERMINATION FOR POTENTIALLY CREDITABLE PHARMACEUTICALS. A healthcare facility that generates a solid waste that is a potentially creditable pharmaceutical shall determine whether the potentially creditable pharmaceutical is a potentially creditable hazardous waste pharmaceutical, that is listed in subch. D of ch. NR 661 or exhibits a characteristic identified in subch. C of ch. NR 661. A healthcare facility may choose to manage its potentially creditable non-hazardous waste pharmaceuticals as potentially creditable hazardous waste pharmaceuticals under this subchapter.

(2) ACCEPTING POTENTIALLY CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS FROM AN OFF-SITE HEALTHCARE FACILITY THAT IS A VERY SMALL QUANTITY GENERATOR. A healthcare facility may accept potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity

generator under s. NR 662.014, without a license or without having interim status, provided the receiving healthcare facility meets all of the following:

(a) Is under the control of the same person, as defined in s. NR 660.10 (90), as the very small quantity generator healthcare facility that is sending the potentially creditable hazardous waste pharmaceuticals off-site or has a contractual or other documented business relationship whereby the receiving healthcare facility supplies pharmaceuticals to the very small quantity generator healthcare facility. "Control," for the purposes of this section, means the power to direct the policies of the healthcare facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate healthcare facilities on behalf of a different person as defined in s. NR 660.10 shall not be deemed to "control" such healthcare facilities.

(b) Is operating under this subchapter for the management of its potentially creditable hazardous waste pharmaceuticals.

(c) Manages the potentially creditable hazardous waste pharmaceuticals that it receives from off-site in compliance with this subchapter.

(d) Keeps records of the potentially creditable hazardous waste pharmaceuticals shipments it receives from off-site for 3 years from the date that the shipment is received.

(3) PROHIBITION. A healthcare facility is prohibited from sending hazardous wastes other than potentially creditable hazardous waste pharmaceuticals to a reverse distributor.

(4) ANNUAL REPORTING BY HEALTHCARE FACILITIES. A healthcare facility is not subject to annual reporting requirements under s. NR 662.041 with respect to potentially creditable hazardous waste pharmaceuticals managed under this subchapter.

(5) RECORDKEEPING BY HEALTHCARE FACILITIES. (a) A healthcare facility that initiates a shipment of potentially creditable hazardous waste pharmaceuticals to a reverse distributor shall keep all of the following records, paper or electronic, for each shipment of potentially creditable hazardous waste pharmaceuticals for 3 years from the date of shipment:

1. The confirmation of delivery.

2. The shipping papers prepared in accordance with 49 CFR part 172 subpart C, if applicable.

(b) The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the department.

(c) All records shall be readily available upon request by the department.

(6) RESPONSE TO SPILLS OF POTENTIALLY CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS AT HEALTHCARE FACILITIES. A healthcare facility shall immediately contain all spills of potentially creditable hazardous waste pharmaceuticals and manage the spill clean-up materials as non-creditable hazardous waste pharmaceuticals in accordance with this subchapter.

NR 666.504 Healthcare facilities that are very small quantity generators for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste.

(1) POTENTIALLY CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS. A healthcare facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may send its potentially creditable hazardous waste pharmaceuticals to a reverse distributor.

(2) OFF-SITE COLLECTION OF HAZARDOUS WASTE PHARMACEUTICALS GENERATED BY A HEALTHCARE FACILITY THAT IS A VERY SMALL QUANTITY GENERATOR. A healthcare facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may send its hazardous waste pharmaceuticals off-site to another healthcare facility, provided one of the following is met:

(a) The receiving healthcare facility meets the conditions specified in ss. NR 666.502 (a) and 666.503 (2), as applicable.

(b) The very small quantity generator healthcare facility meets the conditions specified in s. NR 662.014 (1) (e) 8. and the receiving large quantity generator meets the conditions specified in s. NR 662.017 (6).

(3) LONG-TERM CARE FACILITIES THAT ARE VERY SMALL QUANTITY GENERATORS. A long-term care facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may dispose of its hazardous waste pharmaceuticals, excluding contaminated personal protective equipment or clean-up materials, in an on-site collection receptacle of an authorized collector, as defined by the drug enforcement administration, that is registered with the drug enforcement administration provided the contents are collected, stored, transported, destroyed and disposed of in compliance with all applicable drug enforcement administration regulations for controlled substances.

(4) LONG-TERM CARE FACILITIES WITH 20 BEDS OR FEWER. A long-term care facility with 20 beds or fewer is presumed to be a very small quantity generator subject to s. NR 662.014 for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste and not subject to this subchapter, except for ss. NR 666.505 and 666.507 and the other optional provisions of this section. The department has the responsibility to demonstrate that a long-term care facility with 20 beds or fewer generates quantities of hazardous waste that are in excess of the very small quantity generator limits as defined in s. NR 660.10 (139). A long-term care facility with more than 20 beds that operates as a very small quantity generator under s. NR 662.014 shall demonstrate that it generates quantities of hazardous waste that are within the very small quantity generator limits as defined in s. NR 660.10.

NR 666.505 Prohibition of sewering hazardous waste pharmaceuticals. All healthcare facilities, including very small quantity generators operating under s. NR 662.014 in lieu of this subchapter, and reverse distributors are prohibited from discharging hazardous waste pharmaceuticals to a sewer system that passes through to a publicly-owned treatment works. Healthcare facilities and reverse distributors remain subject to the prohibitions in 40 CFR 403.5(b)(1).

NR 666.506 Conditional exemptions for hazardous waste pharmaceuticals that are also controlled substances and household waste pharmaceuticals collected in a take-back event or program. (1) CONDITIONAL EXEMPTIONS. Provided the conditions of sub. (2) are met, all of the following are exempt from the requirements under chs. NR 662 to 673:

(a) Hazardous waste pharmaceuticals that are also listed on a schedule of controlled substances by the drug enforcement administration in 21 CFR part 1308.

(b) Household waste pharmaceuticals that are collected in a take-back event or program, including those that are collected by an authorized collector, as defined by the drug enforcement administration, registered with the drug enforcement administration that commingles the household waste pharmaceuticals with controlled substances from an ultimate user, as defined by the drug enforcement administration.

(2) CONDITIONS FOR EXEMPTION. The hazardous waste pharmaceuticals shall be all of the following:

(a) Managed in compliance with the sewer prohibition under s. NR 666.505.

(b) Collected, stored, transported, and disposed of in compliance with all applicable drug enforcement administration regulations for controlled substances.

(c) Destroyed by a method that the drug enforcement administration has publicly deemed in writing to meet its non-retrievable standard of destruction or combusted at one of the following:

1. A permitted large municipal waste combustor, subject to 40 CFR part 62 subpart FFF or applicable state plan for existing large municipal waste combustors, or 40 CFR part 60 subparts Eb for new large municipal waste combustors.

2. A permitted small municipal waste combustor, subject to 40 CFR part 62 subpart JJJ or applicable state plan for existing small municipal waste combustors, or 40 CFR part 60 subparts AAAA for new small municipal waste combustors.

3. A permitted hospital, medical and infectious waste incinerator, subject to 40 CFR part 62 subpart HHH or applicable state plan for existing hospital, medical and infectious waste incinerators, or 40 CFR part 60 subpart Ec for new hospital, medical and infectious waste incinerators.

4. A permitted commercial and industrial solid waste incinerator, subject to 40 CFR part 62 subpart III or applicable state plan for existing commercial and industrial solid waste incinerators, or 40 CFR part 60 subpart CCCC for new commercial and industrial solid waste incinerators.

5. A permitted hazardous waste combustor subject to 40 CFR part 63 subpart EEE.

NR 666.507 Residues of hazardous waste pharmaceuticals in empty containers. (1) STOCK, DISPENSING AND UNIT-DOSE CONTAINERS. A stock bottle, dispensing bottle, vial, or ampule, not to exceed 1 liter or 10,000 pills; or a unit-dose container for example, a unit-dose packet, cup, wrapper, blister pack, or delivery device, is considered empty and the residues are not regulated as hazardous waste provided the pharmaceuticals have been removed from the stock bottle, dispensing bottle, vial, ampule, or the unit-dose container using the practices commonly employed to remove materials from that type of container.

(2) SYRINGES. A syringe is considered empty and the residues are not regulated as hazardous waste under this subchapter provided the contents have been removed by fully

depressing the plunger of the syringe. If a syringe is not empty, the syringe shall be placed with its remaining hazardous waste pharmaceuticals into a container that is managed and disposed of as a non-creditable hazardous waste pharmaceutical under this subchapter and any applicable federal, state, and local requirements for sharps containers and medical waste.

(3) INTRAVENOUS (IV) BAGS. An IV bag is considered empty and the residues are not regulated as hazardous waste provided the pharmaceuticals in the IV bag have been fully administered to a patient. If an IV bag is not empty, the IV bag shall be placed with its remaining hazardous waste pharmaceuticals into a container that is managed and disposed of as a non-creditable hazardous waste pharmaceutical under this subchapter, unless the IV bag held non-acute hazardous waste pharmaceuticals and is empty as defined in s. NR 661.0007 (2) (a).

(4) OTHER CONTAINERS, INCLUDING DELIVERY DEVICES. Hazardous waste pharmaceuticals remaining in all other types of unused, partially administered, or fully administered containers shall be managed as non-creditable hazardous waste pharmaceuticals under this subchapter, unless the container held non-acute hazardous waste pharmaceuticals and is empty as defined in s. NR 661.0007 (2) (a) or (b). This includes residues in inhalers, aerosol cans, nebulizers, tubes of ointments, gels, or creams.

NR 666.508 Shipping non-creditable hazardous waste pharmaceuticals from a healthcare facility or evaluated hazardous waste pharmaceuticals from a reverse distributor. (1) SHIPPING NON-CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS OR EVALUATED HAZARDOUS WASTE PHARMACEUTICALS. A healthcare facility shall ship non-creditable hazardous waste pharmaceuticals and a reverse distributor shall ship evaluated hazardous waste pharmaceuticals off-site to a designated facility, for example a license or interim status treatment, storage, or disposal facility, in compliance with all of the following:

(a) *Pretransport.* Before transporting or offering hazardous waste for transportation off-site, a healthcare facility or reverse distributor shall do all of the following:

1. 'Packaging' Package the waste in accordance with the applicable U.S. department of transportation regulations on packaging under 49 CFR parts 173, 178 and 180.

2. 'Labeling' Label each package in accordance with the applicable U.S. department of transportation regulations on hazardous materials under 49 CFR part 172 subpart E.

3. 'Marking'

a. Mark each package of hazardous waste in accordance with the applicable U.S. department of transportation regulations on hazardous materials under 49 CFR part 172 subpart D.

b. Mark each container of 119 gallons or less used in such transportation with the following words and information in accordance with the requirements of 49 CFR 172.304:

"HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Healthcare Facility's or Reverse distributor's Name and Address _____.

Healthcare Facility's or Reverse distributor's EPA Identification Number_____.

Manifest Tracking Number_____."

c. Lab packs that will be incinerated in compliance with s. NR 668.42 (3) are not required to be marked with EPA hazardous waste numbers, except D004, D005, D006, D007, D008, D010, and D011, where applicable. A nationally recognized electronic system, such as bar coding or radio frequency identification, may be used to identify the EPA hazardous waste numbers.

4. 'Placarding' Placard or offer the initial transporter the appropriate placards according to U.S. department of transportation regulations for hazardous materials under 49 CFR part 172, subpart F.

(b) *Manifesting.* A healthcare facility shall comply with the manifest requirements of ch. NR 662 subch. B, except that:

1. A healthcare facility shipping non-creditable hazardous waste pharmaceuticals is not required to list all applicable EPA hazardous waste numbers, or hazardous waste codes, in item 13 of EPA form 8700-22.

2. A healthcare facility shipping non-creditable hazardous waste pharmaceuticals shall write the word "PHARMS" in item 13 of EPA form 8700-22.

(2) EXPORTS. A healthcare facility or reverse distributor that exports non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals is subject to subch. H of ch. NR 662.

(3) IMPORTS. Any person that imports non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals is subject to subch. H of ch. NR 662. A healthcare facility or reverse distributor may not accept imported non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals unless they have a license or interim status that allows them to accept hazardous waste from off-site.

NR 666.509 Shipping potentially creditable hazardous waste pharmaceuticals from a healthcare facility or a reverse distributor to a reverse distributor. (1) SHIPPING POTENTIALLY CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS. A healthcare facility or a reverse distributor who transports or offers for transport potentially creditable hazardous waste pharmaceuticals off-site to a reverse distributor shall comply with all applicable U.S. department of transportation regulations in 49 CFR part 171 to 180 for any potentially creditable hazardous waste pharmaceutical that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the department of transportation regulations, a material is considered a hazardous waste if it is subject to the hazardous waste manifest requirements specified in ch. NR 262. Because a potentially creditable hazardous waste pharmaceutical does not require a manifest, it is not considered hazardous waste under the department of transportation regulations.

(2) DELIVERY CONFIRMATION. Upon receipt of each shipment of potentially creditable hazardous waste pharmaceuticals, the receiving reverse distributor shall provide confirmation, paper or electronic, to the healthcare facility or reverse distributor that initiated the shipment that the shipment of potentially creditable hazardous waste pharmaceuticals has arrived at its destination and is under the custody and control of the reverse distributor.

(3) PROCEDURES FOR WHEN DELIVERY CONFIRMATION IS NOT RECEIVED WITHIN 35 CALENDAR DAYS. If a healthcare facility or reverse distributor initiates a shipment of potentially creditable hazardous waste pharmaceuticals to a reverse distributor and does not receive delivery confirmation within 35 calendar days from the date that the shipment of potentially creditable hazardous waste pharmaceuticals was sent, the healthcare facility or reverse distributor that initiated the shipment shall contact the carrier and the intended recipient , that is the reverse distributor, promptly to report that the delivery confirmation was not received and to determine the status of the potentially creditable hazardous waste pharmaceuticals.

(4) EXPORTING POTENTIALLY CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS.A healthcare facility or reverse distributor that sends potentially creditable hazardous waste pharmaceuticals to a foreign destination shall comply with the applicable sections of subch. H of ch. NR 662, except the manifesting requirement under s. NR 662.083 (3), in addition to subs. (1) to (3).

(5) IMPORTING POTENTIALLY CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS. Any person that imports potentially creditable hazardous waste pharmaceuticals into the United States is subject to subs. (1) to (3) in lieu of subch. H of ch. NR 662. Immediately after the potentially creditable hazardous waste pharmaceuticals enter the United States, they are subject to all applicable requirements of this subchapter.

NR 666.510 Standards for the management of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals at reverse distributors. A reverse distributor may accept potentially creditable hazardous waste pharmaceuticals from off-site and accumulate potentially creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals on-site without a hazardous waste permit or without having interim status, provided that the reverse distributor complies with all of the following conditions:

(1) STANDARDS FOR REVERSE DISTRIBUTORS MANAGING POTENTIALLY CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS AND EVALUATED HAZARDOUS WASTE PHARMACEUTICALS. (a) *Notification.* A reverse distributor shall notify the department using the site identification form EPA form 8700-12, that it is a reverse distributor operating under this subchapter. A reverse distributor shall do one of the following:

1. A reverse distributor that already has an EPA identification number shall notify the department, using the site identification form EPA form 8700-12, that it is a reverse distributor, as defined in s. NR 666.500, within 60 calendar days of the effective date of this subchapter, or within 60 calendar days of becoming subject to this subchapter.

2. A reverse distributor that does not have an EPA identification number shall obtain one by notifying the department, using the site identification form EPA form 8700-12, that it is a reverse distributor, as defined in s. NR 666.500, within 60 calendar days of the effective date of this subchapter, or within 60 calendar days of becoming subject to this subchapter.

(b) *Inventory by the reverse distributor.* A reverse distributor shall maintain a current inventory of all the potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals that are accumulated on-site.

1. A reverse distributor shall inventory each potentially creditable hazardous waste pharmaceutical within 30 calendar days of each waste arriving at the reverse distributor.

2. The inventory shall include the identity, for example name or national drug code, and quantity of each potentially creditable hazardous waste pharmaceutical and evaluated hazardous waste pharmaceutical.

3. If the reverse distributor already meets the inventory requirements of this paragraph because of other regulatory requirements, such as state board of pharmacy regulations, the facility is not required to provide a separate inventory pursuant to this section.

(c) *Evaluation by a reverse distributor that is not a manufacturer*. A reverse distributor that is not a pharmaceutical manufacturer shall evaluate a potentially creditable hazardous waste pharmaceutical within 30 calendar days of the waste arriving at the reverse distributor to establish whether it is destined for another reverse distributor for further evaluation or verification of manufacturer credit or for a permitted or interim status treatment, storage, or disposal facility. Potentially creditable hazardous waste pharmaceutical sent to a reverse distributor that is not a pharmaceutical manufacturer is subject to one of the following:

1. A potentially creditable hazardous waste pharmaceutical that is destined for another reverse distributor is still considered a "potentially creditable hazardous waste pharmaceutical" and shall be managed in accordance with sub (2).

2. A potentially creditable hazardous waste pharmaceutical that is destined for a licensed or interim status treatment, storage, or disposal facility is considered an "evaluated hazardous waste pharmaceutical" and shall be managed in accordance with sub. (3).

(d) *Evaluation by a reverse distributor that is a manufacturer*. A reverse distributor that is a pharmaceutical manufacturer shall evaluate a potentially creditable hazardous waste pharmaceutical to verify manufacturer credit within 30 calendar days of the waste arriving at the facility and following the evaluation shall manage the evaluated hazardous waste pharmaceuticals in accordance with sub. (3).

(e) *Maximum accumulation time for hazardous waste pharmaceuticals at a reverse distributor*. 1. A reverse distributor may accumulate potentially creditable hazardous waste

pharmaceuticals and evaluated hazardous waste pharmaceuticals on-site for 180 calendar days or less. The 180 calendar days start after the potentially creditable hazardous waste pharmaceutical has been evaluated and applies to all hazardous waste pharmaceuticals accumulated on-site, regardless of whether they are destined for another reverse distributor, such as potentially creditable hazardous waste pharmaceuticals, or a permitted or interim status treatment, storage, or disposal facility, such as evaluated hazardous waste pharmaceuticals.

2. Unexpired pharmaceuticals that are otherwise creditable but are awaiting their expiration date, by aging in a holding morgue, can be accumulated for up to 180 calendar days after the expiration date, provided that the unexpired pharmaceuticals are managed in accordance with sub. (1) and the container labeling and management standards specified in s. NR 666.510 (3) (d) 1. to 6.

(f) *Security at the reverse distributor facility.* A reverse distributor shall prevent unknowing entry and minimize the possibility for the unauthorized entry into the portion of the facility where potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals are kept. Examples of methods that may be used to prevent unknowing entry and minimize the possibility for unauthorized entry include any of the following:

1. A 24-hour continuous monitoring surveillance system.

2. An artificial barrier such as a fence.

3. A means to control entry, such as keycard access.

4. If the reverse distributor already meets the security requirements of this paragraph because of other regulatory requirements, such as drug enforcement administration or state board of pharmacy regulations, the facility is not required to provide separate security measures pursuant to this section.

(g) *Contingency plan and emergency procedures at a reverse distributor*. A reverse distributor that accepts potentially creditable hazardous waste pharmaceuticals from off-site shall prepare a contingency plan and comply with the other requirements under subch. M of ch. NR 662.

(h) *Closure of a reverse distributor.* When closing an area where a reverse distributor accumulates potentially creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals, the reverse distributor shall comply with s. NR 662.017 (1) (h) 2. and 3.

(i) *Reporting by a reverse distributor.* 1. 'Unauthorized waste report'. A reverse distributor shall submit an unauthorized waste report if the reverse distributor receives waste from off-site that it is not authorized to receive, such as non-pharmaceutical hazardous waste, or regulated medical waste. The reverse distributor shall prepare and submit an unauthorized waste report to the department within 45 calendar days after the unauthorized waste arrives at the reverse distributor and shall send a copy of the unauthorized waste report to the healthcare facility or other entity that sent the unauthorized waste. The reverse distributor shall manage the unauthorized waste in accordance with all applicable regulations. The unauthorized waste report shall be signed by the owner or operator of the reverse distributor, or its authorized representative, and contain all of the following information:

a. The EPA identification number, name, and address of the reverse distributor.

b. The date the reverse distributor received the unauthorized waste.

c. The EPA identification number, name, and address of the healthcare facility that shipped the unauthorized waste, if available.

d. A description and the quantity of each unauthorized waste the reverse distributor received.

e. The method of treatment, storage, or disposal for each unauthorized waste.

f. A brief explanation of why the waste was unauthorized, if known.

2. 'Additional reports.' The department may require reverse distributors to furnish additional reports concerning the quantities and disposition of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

(j) *Recordkeeping by reverse distributors.* A reverse distributor shall keep all of the following records, paper or electronic, readily available upon request by an inspector. The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the department.

1. A copy of its notification on file for as long as the facility is subject to this subchapter.

2. A copy of the delivery confirmation and the shipping papers for each shipment of potentially creditable hazardous waste pharmaceuticals that it receives, and a copy of each unauthorized waste report, for at least 3 years from the date the shipment arrives at the reverse distributor.

3. A copy of its current inventory for as long as the facility is subject to this subchapter.

(2) ADDITIONAL STANDARDS FOR REVERSE DISTRIBUTORS MANAGING POTENTIALLY CREDITABLE HAZARDOUS WASTE PHARMACEUTICALS DESTINED FOR ANOTHER REVERSE DISTRIBUTOR. A reverse distributor that does not have a license or interim status shall comply with all of the following conditions, in addition to the requirements specified in sub. (1), for the management of potentially creditable hazardous waste pharmaceuticals that are destined for another reverse distributor for further evaluation or verification of manufacturer credit:

(a) A reverse distributor that receives potentially creditable hazardous waste pharmaceuticals from a healthcare facility shall send those potentially creditable hazardous waste pharmaceuticals to another reverse distributor within 180 calendar days after the potentially creditable hazardous waste pharmaceuticals have been evaluated or follow sub. (3) for evaluated hazardous waste pharmaceuticals.

(b) A reverse distributor that receives potentially creditable hazardous waste pharmaceuticals from another reverse distributor shall send those potentially creditable hazardous waste pharmaceuticals to a reverse distributor that is a pharmaceutical manufacturer within 180 calendar days after the potentially creditable hazardous waste pharmaceuticals have been evaluated or follow sub. (3) for evaluated hazardous waste pharmaceuticals.

(c) A reverse distributor shall ship potentially creditable hazardous waste pharmaceuticals destined for another reverse distributor in accordance with s. NR 666.509.

(d) A reverse distributor shall keep all of the following records, paper or electronic, readily available upon request by an inspector for each shipment of potentially creditable hazardous waste pharmaceuticals that it initiates to another reverse distributor, for at least 3 years from the date of shipment. The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the department.

1. The confirmation of delivery.

2. The DOT shipping papers prepared in accordance with 49 CFR part 172 subpart C, if applicable

(3) ADDITIONAL STANDARDS FOR REVERSE DISTRIBUTORS MANAGING EVALUATED HAZARDOUS WASTE PHARMACEUTICALS. A reverse distributor that

does not have a license or interim status shall comply with all of the following conditions, in addition to the requirements of sub. (1), for the management of evaluated hazardous waste pharmaceuticals:

(a) *Accumulation area at the reverse distributor.* A reverse distributor shall designate an on-site accumulation area where it will accumulate evaluated hazardous waste pharmaceuticals.

(b) *Inspections of on-site accumulation area.* A reverse distributor shall inspect its on-site accumulation area at least once every 7 calendar days, looking at containers for leaks and for deterioration caused by corrosion or other factors, as well as for signs of diversion.

(c) *Personnel training at a reverse distributor.* Personnel at a reverse distributor that handle evaluated hazardous waste pharmaceuticals are subject to the training requirements under s. NR 662.017 (1) (g).

(d) *Labeling and management of containers at on-site accumulation areas.* A reverse distributor accumulating evaluated hazardous waste pharmaceuticals in containers in an on-site accumulation area shall do all of the following:

1. Label the containers with the words, "hazardous waste pharmaceuticals."

2. Ensure the containers are in good condition and managed to prevent leaks.

3. Use containers that are made of or lined with materials that will not react with, and are otherwise compatible with, the evaluated hazardous waste pharmaceuticals, so that the ability of the container to contain the waste is not impaired.

4. Keep containers closed, if the container is holding liquid or gel evaluated hazardous waste pharmaceuticals. If the liquid or gel evaluated hazardous waste pharmaceuticals are in their original, intact, sealed packaging or repackaged in intact, sealed packaging, they are considered to meet the closed container standard.

5. Manage any container of ignitable or reactive evaluated hazardous waste pharmaceuticals, or any container of commingled incompatible evaluated hazardous waste pharmaceuticals so that the container does not have the potential to do any of the following:

a. Generate extreme heat or pressure, fire or explosion, or violent reaction.

b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health.

c. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions.

d. Damage the structural integrity of the container of hazardous waste pharmaceuticals.

e. Through other like means threaten human health or the environment.

6. Accumulate evaluated hazardous waste pharmaceuticals that are prohibited from being combusted because of the dilution prohibition under s. NR 668.03 (3), for example arsenic trioxide (P012), in separate containers from other evaluated hazardous waste pharmaceuticals at the reverse distributor.

(e) *Hazardous waste numbers.* Prior to shipping evaluated hazardous waste pharmaceuticals off-site, all containers shall be marked with the applicable hazardous waste numbers, or hazardous waste codes. A nationally recognized electronic system, such as bar coding or radio frequency identification, may be used to identify the EPA hazardous waste numbers.

(f) *Shipments.* A reverse distributor shall ship evaluated hazardous waste pharmaceuticals that are destined for a permitted or interim status treatment, storage, or disposal facility in accordance with the applicable shipping standards specified in s. NR 666.508 (1) or (2).

(g) *Procedures for a reverse distributor for managing rejected shipments.* A reverse distributor that sends a shipment of evaluated hazardous waste pharmaceuticals to a designated facility with the understanding that the designated facility can accept and manage the waste, and later receives that shipment back as a rejected load in accordance with the manifest discrepancy provisions under s. NR 664.0072 or 665.0072, may accumulate the returned evaluated hazardous waste pharmaceuticals on-site for up to an additional 90 calendar days in the on-site accumulation area provided the rejected or returned shipment is managed in accordance with s. NR 666.510 (1) and (3). Upon receipt of the returned shipment, the reverse distributor shall do all of the following:

1. Sign one of the following:

a. Item 18c of the original manifest, if the original manifest was used for the returned shipment.

b. Item 20 of the new manifest, if a new manifest was used for the returned shipment.

2. Provide the transporter a copy of the manifest

3. Within 30 calendar days of receipt of the rejected shipment of the evaluated hazardous waste pharmaceuticals, send a copy of the manifest to the designated facility that returned the shipment to the reverse distributor.

4. Within 90 calendar days of receipt of the rejected shipment, transport or offer for transport the returned shipment of evaluated hazardous waste pharmaceuticals in accordance with the applicable shipping standards under s. NR 666.508 (1) or (2).

(h) *Land disposal restrictions*. Evaluated hazardous waste pharmaceuticals are subject to the land disposal restrictions under ch. NR 668. A reverse distributor that accepts potentially creditable hazardous waste pharmaceuticals from off-site shall comply with the land disposal restrictions in accordance with s. NR 668.07 (1) requirements.

(i) *Reporting by a reverse distributor for evaluated hazardous waste pharmaceuticals.*

1. 'Annual reporting by a reverse distributor.' A reverse distributor that ships evaluated hazardous waste pharmaceuticals off-site shall prepare and submit a single copy of an annual report to the department by March 1 of each year in accordance with s. NR 662.041.

2. 'Exception reporting by a reverse distributor for a missing copy of the manifest - shipments from a reverse distributor to a designated facility'

a. A reverse distributor who does not receive a copy of the manifest with the signature of the owner or operator of the designated facility within 35 calendar days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter, the reverse distributor shall contact the transporter or the owner or operator of the designated facility to determine the status of the evaluated hazardous waste pharmaceuticals.

b. A reverse distributor shall submit an exception report to the department if it has not received a copy of the manifest with the signature of the owner or operator of the designated facility within 45 calendar days of the date the evaluated hazardous waste pharmaceutical was accepted by the initial transporter. The exception report shall include all of the following:

1) A legible copy of the manifest for which the reverse distributor does not have confirmation of delivery.

2) A cover letter signed by the reverse distributor, or its authorized representative, explaining the efforts taken to locate the evaluated hazardous waste pharmaceuticals and the results of those efforts.

3. 'Exception reporting by a reverse distributor for a missing copy of the manifest - shipments rejected by the designated facility and shipped to an alternate facility'

a. A reverse distributor that does not receive a copy of the manifest with the signature of the owner or operator of the alternate facility within 35 calendar days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter shall contact the transporter or the owner or operator of the alternate facility to determine the status of the hazardous waste. The 35-day time frame begins the date the evaluated hazardous waste pharmaceuticals are accepted by the transporter forwarding the hazardous waste shipment from the designated facility to the alternate facility.

b. A reverse distributor shall submit an exception report to the department if it has not received a copy of the manifest with the signature of the owner or operator of the alternate facility within 45 calendar days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter. The 45-day timeframe begins the date the evaluated hazardous waste pharmaceuticals are accepted by the transporter forwarding the hazardous waste pharmaceutical shipment from the designated facility to the alternate facility. The exception report shall include all of the following:

1) A legible copy of the manifest for which the generator does not have confirmation of delivery.

2) A cover letter signed by the reverse distributor, or its authorized representative, explaining the efforts taken to locate the evaluated hazardous waste pharmaceuticals and the results of those efforts.

(j) *Recordkeeping by a reverse distributor for evaluated hazardous waste pharmaceuticals.* 1. A reverse distributor shall keep a log, written or electronic, of the inspections of the on-site accumulation area, as required under par. (b). This log shall be retained as a record for at least 3 years from the date of the inspection.

2. A reverse distributor shall keep a copy of each manifest signed in accordance with s. NR 662.023 (1) for 3 years or until it receives a signed copy from the designated facility that received the evaluated hazardous waste pharmaceutical. This signed copy shall be retained as a record for at least 3 years from the date the evaluated hazardous waste pharmaceutical was accepted by the initial transporter.

3. A reverse distributor shall keep a copy of each annual report for at least 3 years from the due date of the report.

4. A reverse distributor shall keep a copy of each exception report for at least 3 years from the submission of the report.

5. A reverse distributor shall keep records to document personnel training, in accordance with s. NR 662.017 (1) (g) 4.

6. All records shall be readily available upon request by an inspector. The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the department.

(4) WHEN A REVERSE DISTRIBUTOR IS REQUIRED TO HAVE A LICENSE. A reverse distributor is an operator of a hazardous waste treatment, storage, or disposal facility and is subject to the requirements under chs. NR 664, 665, and 667 and the license requirements under ch. NR 670, if the reverse distributor does any of the following:

(a) Does not meet the conditions of this section.

(b) Accepts manifested hazardous waste from off-site.

(c) Treats or disposes of hazardous waste pharmaceuticals on-site.

SECTION 180. NR 666.901 (3) is amended to read:

NR 666.901 (3) "Elementary neutralization unit" means a container or tank used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in s. NR ~~661.22~~ 661.0022, or they are listed in subch. D of ch. NR 661 only for corrosivity.

SECTION 181. NR 666.903 (10) (d) (Note) is amended to read:

NR 666.903 (10) (d) **Note:** Unless the owner or operator can demonstrate, according to s. NR ~~661.03~~ 661.0003 (3) or (4), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it according to all applicable requirements of chs. NR 662, 663 and this subchapter.

SECTION 182. NR 666 Appendix IX 2.1.6.3.1 is amended to read:

NR 666 Appendix IX 2.1.6.3.1 Sampling Strategy. Challenge each monitor (both low- and high-range CO and O2) with zero gas and EPA Protocol 1, incorporated by reference in s. NR 660.11, cylinder gases at 3 measurement points within the ranges specified in Table 2.1-3.

SECTION 183. NR 666 Appendix IX 2.1.11 References is amended to read:

NR 666 Appendix IX 2.1.11 References

~~(incorporated by reference in s. NR 660.11)~~

SECTION 184. NR 666 Appendix IX 2.2.4.1.7 is amended to read:

NR 666 Appendix IX 2.2.4.1.7 Calibration Gases. Appropriate concentrations of propane gas (in air or nitrogen). Preparation of the calibration gases should be done according to the procedures in EPA Protocol 1, incorporated by reference in s. NR 660.11. In addition, the manufacturer of the cylinder gas should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change by more than ±2% from the certified value.

SECTION 185. NR 666 Appendix IX 2.2.6.3.1 is amended to read:

NR 666 Appendix IX 2.2.6.3.1 Sampling Strategy. Challenge the CEMS with zero gas and EPA Protocol 1, incorporated by reference in s. NR 660.11, cylinder gases at measurement points within the ranges specified in section 2.2.4.7.

SECTION 186. NR 666 Appendix IX 2.2.6.3.1.1 is amended to read:

NR 666 Appendix IX 2.2.6.3.1.1 The daily calibration gases, if EPA Protocol 1, incorporated by reference in s. NR 660.11, may be used for this test.

SECTION 187. NR 666 Appendix IX 2.2.11 References is amended to read:

NR 666 Appendix IX 2.2.11 References

~~(incorporated by reference in s. NR 660.11)~~

SECTION 188. NR 667.0003 is amended to read:

NR 667.0003 Notwithstanding any other provisions of this chapter, enforcement actions may be brought pursuant to ~~section 7003 of RCRA~~, 42 USC 6973(a) and chs. 289 and 291, Stats., and other applicable laws.

SECTION 189. NR 667.0071 (1) (f) is created to read:

NR 667.0071 (1) (f) If a facility receives hazardous waste subject to subch. H of ch. NR 662, from a foreign source, the receiving facility shall do all of the following:

1. List the relevant consent number from consent documentation supplied by EPA to the facility for each waste listed on the manifest, matched to the relevant list number for the waste from block 9b. If additional space is needed, the receiving facility should use a continuation sheet, EPA Form 8700-22A.

2. Mail a copy of the manifest to EPA using the addresses listed in s. NR 662.082 (5) within 30 days of delivery until the facility can submit a copy to the e-Manifest system under s. NR 664.0071 (1) (b) 5. or 665.0071 (1) (b) 5.

SECTION 190. NR 667.0071 (3) and (4) are amended to read:

NR 667.0071 (3) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements of ch. NR 662. The department notes that the provisions of s. NR ~~662.034~~ 662.016 or 662.017 are applicable to the on−site accumulation of hazardous wastes by generators. Therefore, the provisions of s. NR ~~662.034~~ 662.016 or 662.017 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.

(4) ~~Within~~ As per s. NR 662.084 (4) (b) 15., within 3 working days of the receipt of a shipment subject to ~~40 CFR part 262, subchapter~~ subch. H of ch. NR 662, the owner or operator of the facility shall provide a copy of the ~~tracking~~ movement document bearing all required signatures to the ~~notifier~~ foreign exporter, to the ~~Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460 and to~~ competent authorities of ~~all other concerned~~ the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively, and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's waste

import export tracking system, or its successor system. The original copy of the ~~tracking~~ movement document shall be maintained at the facility for at least 3 years from the date of signature. The owner or operator of a facility may satisfy this recordkeeping requirement by retaining electronically submitted documents in the facility's account on EPA's waste import export tracking system, or its successor system, provided that copies are readily available for viewing and production if requested by an EPA or department inspector. No owner or operator of a facility shall be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's waste import export tracking system, or its successor system, for which the owner or operator of a facility bears no responsibility.

SECTION 191. NR 667.0147 (6) (b) 4. b. is amended to read:

NR 667.0147 (6) (b) 4. b. The department releases the owner or operator from the requirements of this section in accordance with s. ~~NR 667.0134 (10)~~ NR 667.0143 (10).

SECTION 192. NR 667.0201 is amended to read:

NR 667.0201 **What shall I do when I stop operating the tank system?** When you close a tank system, remove or decontaminate all waste residues, contaminated containment system components (for example, liners), contaminated soils and structures and equipment contaminated with waste, and manage them as hazardous waste, unless s. NR ~~661.03~~ 661.0003 (4) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems shall meet all of the requirements specified in subchs. G and H.

SECTION 193. NR 667.0202 (1) (a) 2. is amended to read:

NR 667.0202 (1) (a) 2. The resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste under s. NR ~~661.21~~ 661.0021 or ~~661.23~~ 661.0023.

SECTION 194. NR 667.1108 is amended to read:

NR 667.1108 **What shall I do when I stop operating the containment building?** When you close a containment building, remove or decontaminate all waste residues, contaminated containment system components (such as liners), contaminated subsoils and structures, and equipment contaminated with waste and leachate, and manage them as hazardous waste unless s. NR ~~661.03~~ 661.0003 (4) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings shall meet all of the requirements specified in subchs. G and H.

SECTION 195. NR 668.01 (5) (a) is repealed and recreated to read:

NR 668.01 (5) (a) Waste generated by very small quantity generators, as defined in s. NR 660.10 (139).

SECTION 196. NR 668.07 (title), (1) (intro.), (c) 3., (d) Table, (g), (h), (2) (c) 2., (d) 2., are amended to read:

NR 668.07 **Testing, tracking, and recordkeeping requirements for generators, reverse distributors, treaters, and disposal facilities.**

(1) Generators and pharmaceutical reverse distributors shall comply with all of the following requirements:

(c) 3. If the waste changes, the generator shall send a new notice and certification to the receiving facility, and place a copy in the generator's file. Generators of hazardous debris excluded from the definition of hazardous waste under s. NR ~~661.03~~ 661.0003 (6) are not subject to these requirements.

(d) Table

Generator Paperwork Requirements Table

Required information	s. NR 668.07 (1) (b)	s. NR 668.07 (1) (c)	s. NR 668.07 (1) (d)	s. NR 668.07 (1) (i)
1. EPA hazardous waste numbers and manifest number of first shipment	✓	✓	✓	✓
2. Statement: this waste is not prohibited from land disposal			✓	

3. The waste is subject to the LDRs. The constituents of concern for F001−F005, and F039, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice	✓	✓		
4. The notice must include the applicable wastewater/ nonwastewater category (see ss. NR 668.02 (4) and (6)) and subdivisions subcategories made within a waste code based on waste−specific criteria (such as D003 reactive cyanide)	✓	✓		
5. Waste analysis data (when available)	✓	✓	✓	
6. Date the waste is subject to the prohibition			✓	
7. For hazardous debris, when treating with the alternative treatment technologies provided by s. NR 668.45: the contaminants subject to treatment, as described in s. NR 668.45 (2); and an indication that these contaminants are being treated to comply with s. NR 668.45	✓		✓	
8. For contaminated soil subject to LDRs as provided in s. NR 668.49 (1), the constituents subject to treatment as described in s. NR 668.49 (4), and the following statement: This contaminated soil [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and [is subject to/complies with the soil treatment standards as provided by s. NR 668.49 (3) or the universal treatment standards	✓	✓		
9. A certification is needed (see applicable section for exact wording)		✓		✓

(g) If a generator determines that the generator is managing a prohibited waste that is excluded from the definition of hazardous or solid waste or is not regulated under ch. 291, Stats., and chs. NR 660 to 673 pursuant to ss. NR ~~661.02~~ 661.0002 to ~~661.06~~ 661.0006 subsequent to the point of generation, including deactivated characteristic hazardous wastes managed in wastewater treatment systems subject to 33 USC 1342 as specified at s. NR ~~661.04~~ 661.0004 (1)

(b) or that are CWA−equivalent, the generator shall place a one−time notice describing the generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from ch. 291, Stats., and chs. NR 660 to 673 regulation, and the disposition of the waste, in the facility's on−site files.

(h) Generators shall retain on−site a copy of all notices, certifications, waste analysis data and other documentation produced pursuant to this section for at least 3 years from the date that the waste that is the subject of the documentation was last sent to on−site or off−site treatment, storage or disposal. The 3 year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the department. The requirements of this subsection apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under ss. NR ~~661.02~~ 661.0002 to ~~661.06~~ 661.0006, or exempted from ch. 291, Stats., and chs. NR 660 to 673, subsequent to the point of generation.

(2) (c) 2. Table

Treatment Facility Paperwork Requirements Table

Required information	**s. NR 668.07 (2)**
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment	✓
2. The waste is subject to the LDRs. The constituents of concern for F001−F005, and F039, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice.	✓
3. The notice must include the applicable wastewater/ nonwastewater category (see ss. NR 668.02 (4) and (6)) and ~~subdivisions~~ subcategories made within a waste code based on waste−specific criteria (such as D003 reactive cyanide)	✓
4. Waste analysis data (when available)	✓
5. For contaminated soil subject to LDRs as provided in s. NR 668.49 (1), the constituents subject to treatment as described in s. NR 668.49 (4) and the following statement: "This contaminated soil [does/does not] exhibit a	✓

characteristic of hazardous waste and [is subject to/complies with] the soil treatment standards as provided by s. NR 668.49 (3)."	
6. A certification is needed (see applicable section for exact wording)	✓

(d) 2. Debris excluded from the definition of hazardous waste under s. NR ~~661.03~~ 661.0003 (6) (i.e., debris treated by an extraction or destruction technology provided by s. NR 668.45, Table 1, and debris that the department has determined does not contain hazardous waste), is subject to the notification and certification requirements of sub. (4) rather than the certification requirements of this subsection.

SECTION 197. NR 668.07 (2) (f) is repealed and recreated to read:

NR 668.07 (2) (f) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of s. NR 666.20 (2) regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (for instance, the recycler) shall, for the initial shipment of waste, prepare a one-time certification described in par. (d), and a one-time notice which includes the information in par. (c) (except the manifest number). The certification and notification shall be placed in the facility's on-site files. If the waste or the receiving facility changes, a new certification and notification shall be prepared and placed in the on-site files. In addition, the recycling facility shall also keep records of the name and location of each entity receiving the hazardous waste-derived product.

SECTION 198. NR 668.07 (4) (intro.), (a) 3., (b), and (c) (intro.) are amended to read:

NR 668.07 (4) Generators or treaters who claim that hazardous debris is excluded from the definition of hazardous waste under s. NR ~~661.03~~ 661.0003 (6) (i.e., debris treated by an extraction or destruction technology provided by s. NR 668.45, Table 1, and debris that the department has determined does not contain hazardous waste) are subject to all of the following notification and certification requirements:

(a) 3. For debris excluded under s. NR ~~661.03~~ 661.0003 (6) (a), the technology from s. NR 668.45, Table 1, used to treat the debris.

(b) The notification shall be updated if the debris is shipped to a different facility, and, for debris excluded under s. NR ~~661.02~~ 661.0002 (5) (a), if a different type of debris is treated or if a different technology is used to treat the debris.

(c) For debris excluded under s. NR ~~661.03~~ 661.0003 (6) (a), the owner or operator of the treatment facility shall document and certify compliance with the treatment standards of s. NR 668.45, Table 1, by meeting all of the following criteria:

SECTION 199. NR 668.31 (1) is amended to read:

NR 668.31 (1) Effective November 8, 1988, the dioxin−containing wastes specified in s. NR ~~661.31~~ 661.0031 as EPA hazardous waste numbers F020, F02l, F022, F023, F026, F027, and F028, are prohibited from land disposal, unless the F020 to F023 and F026 to F028 dioxin−containing waste is contaminated soil and debris resulting from a response action taken under 42 USC 9604 or 9606 or a corrective action taken under ch. 292, Stats.

SECTION 200. NR 668.37 is amended to read:

NR 668.37 **Waste specific prohibitions — ignitable and corrosive characteristic wastes whose treatment standards were vacated.** Effective August 9, 1993, wastes specified in s. NR ~~661.21~~ 661.0021 as D001, which are not in the high TOC ignitable liquids subcategory, and specified in s. NR ~~661.22~~ 661.0022 as D002, which are managed in systems other than those whose discharge is regulated under ch. 283, Stats., or in systems that are zero dischargers that engage in CWA−equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA− equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies.

SECTION 201. NR 668.38 (1) is amended to read:

NR 668.38 (1) Effective December 19, 1994, the wastes specified in s. NR ~~661.32~~ 661.0032 as EPA hazardous waste numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal. In addition, debris contaminated with EPA hazardous waste numbers F037, F038, K107 to K112, K117, K118, K123 to K126, K131,

K132, K136, U328, U353, U359, and soil and debris contaminated with D012 to D043, K141 to K145, and K147 to K151 are prohibited from land disposal. Wastes that are specified in s. NR ~~661.24~~ 661.0024, Table 1 as EPA hazardous waste numbers: D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043 that are not radioactive, or that are managed in systems other than those whose discharge is regulated under ch. 283, Stats., or that are zero dischargers that do not engage in CWA−equivalent treatment before ultimate land disposal are prohibited from land disposal.

SECTION 202. NR 668.39 (1), (2) and (3) are amended to read:

NR 668.39 (1) On July 8, 1996, the wastes specified in s. NR ~~661.32~~ 661.0032 as EPA Hazardous waste numbers K156 to K159, and K161; and in s. NR ~~661.33~~ 661.0033 as EPA hazardous waste numbers P127, P128, P185, P188 to P192, P194, P196 to P199, P201 to P205, U271, U278 to U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409 to U411 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

(2) On July 8, 1996, the wastes identified in s. NR ~~661.23~~ 661.0023 as D003 that are managed in systems other than those whose discharge is regulated under ch. 283, Stats., or that are zero dischargers that engage in CWA−equivalent treatment before ultimate land disposal, are prohibited from land disposal. This prohibition does not apply to unexploded ordnance and other explosive devices which have been the subject of an emergency response. (These D 003 wastes are prohibited unless they meet the treatment standard of DEACT before land disposal as described in s. NR 668.40).

(3) On September 21, 1998, the wastes specified in s. NR ~~661.32~~ 661.0032 as EPA hazardous waste number K088 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

SECTION 203. NR 668.40 (7) and (10) are amended to read:

NR 668.40 (7) Between August 26, 1996 and March 4, 1999 the treatment standards for the wastes specified in s. NR ~~661.32~~ 661.0032 as EPA hazardous waste numbers K156 to K161 and in s. NR ~~661.33~~ 661.0033 as EPA hazardous waste numbers P127, P128, P185, P188 to

P192, P194, P196 to P199, P201 to P205, U271, U277 to U280, U364 to U367, U372, U373, U375 to U379, U381 to U387, U389 to U396, U400 to U404, U407, and U409 to U411; and soil contaminated with these wastes; shall be satisfied by either meeting the constituent concentrations presented in the table "Treatment Standards for Hazardous Wastes" in this section, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at s. NR 668.42, Table 1, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN; chemical oxidation as defined by the technology code CHOXD; or combustion as defined as technology code CMBST at s. NR 668.42, Table 1, for wastewaters.

(10) Effective September 4, 1998, the treatment standards for the wastes specified in s. NR ~~661.33~~ 661.0033 as EPA hazardous waste numbers P185, P191, P192, P197, U364, U394, and U395 shall be satisfied by either meeting the constituent concentrations presented in the table "Treatment Standards for Hazardous Wastes" in this section, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at s. NR 668.42, Table 1, for nonwastewaters; biodegradation as defined by the technology code BIODG; carbon adsorption as defined by the technology code CARBN; chemical oxidation as defined by the technology code CHOXD; or combustion as defined as technology code CMBST at s. NR 668.42, Table 1, for wastewaters.

SECTION 204. NR 668.40 Table is repealed and recreated to read:

NR 668.40 - Treatment Standards for Hazardous Wastes

NA means not applicable

Waste code	Waste description and treatment/Regulatory subcategory[1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS[2] number	Concentration in mg/L[3]; or Technology Code[4]	Concentration in mg/kg[5] unless noted as "mg/L TCLP"; or Technology Code[4]
D001[9]	Ignitable Characteristic Wastes, except for the s. NR	NA	NA	DEACT and meet s. NR 668.48	DEACT and meet s. NR 668.48

	661.0021 (1) (a) High TOC Subcategory.			standards[8]; or RORGS; or CMBST	standards[8]; or RORGS; or CMBST
	High TOC Ignitable Characteristic Liquids Subcategory based on s. NR 661.0021 (1) (a)—Greater than or equal to 10% total organic carbon. (Note: This subcategory consists of nonwastewaters only.)	NA	NA	NA	RORGS; CMBST; or POLYM
D002[9]	Corrosive Characteristic Wastes.	NA	NA	DEACT and meet s. NR 668.48 standards[8]	DEACT and meet s. NR 668.48 standards[8]
D002, D004, D005, D006, D007, D008, D009, D010, D011	Radioactive high-level wastes generated during the reprocessing of fuel rods. (Note: This subcategory consists of nonwastewaters only.)	Corrosivity (pH)	NA	NA	HLVIT
		Arsenic	7440-38-2	NA	HLVIT
		Barium	7440-39-3	NA	HLVIT
		Cadmium	7440-43-9	NA	HLVIT
		Chromium (Total)	7440-47-3	NA	HLVIT
		Lead	7439-92-1	NA	HLVIT
		Mercury	7439-97-6	NA	HLVIT
		Selenium	7782-49-2	NA	HLVIT
		Silver	7440-22-4	NA	HLVIT
D003[9]	Reactive Sulfides Subcategory based on s. NR 661.0023 (1) (e).	NA	NA	DEACT	DEACT
	Explosives Subcategory based on s. NR 661.0023 (1) (f), (g), and (h).	NA	NA	DEACT and meet s. NR 668.48 standards[8]	DEACT and meet s. NR 668.48 standards[8]

	Unexploded ordnance and other explosive devices which have been the subject of an emergency response.	NA	NA	DEACT	DEACT
	Other Reactives Subcategory based on s. NR 661.0023 (1) (a).	NA	NA	DEACT and meet s. NR 668.48 standards[8]	DEACT and meet s. NR 668.48 standards[8]
	Water Reactive Subcategory based on s. NR 661.0023 (1) (b), (c), and (d). (Note: This subcategory consists of nonwastewaters only).	NA	NA	NA	DEACT and meet s. NR 668.48 standards[8]
	Reactive Cyanides Subcategory based on s. NR 661.0023 (1) (e).	Cyanides (Total)7	57-12-5	Reserved	590
		Cyanides (Amenable)7	57-12-5	0.86	30
D004[9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Arsenic	7440-38-2	1.4 and meet s. NR 668.48 standards[8]	5.0 mg/L TCLP and meet s. NR 668.48 standards[8]
D005[9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Barium	7440-39-3	1.2 and meet s. NR 668.48 standards[8]	21 mg/L TCLP and meet s. NR 668.48 standards[8]
D006[9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Cadmium	7440-43-9	0.69 and meet s. NR 668.48 standards[8]	0.11 mg/L TCLP and meet s. NR 668.48 standards[8]

	Cadmium Containing Batteries Subcategory. (Note: This subcategory consists of nonwastewaters only).	Cadmium	7440-43-9	NA	RTHRM
	Radioactively contaminated cadmium containing batteries. (Note: This subcategory consists of nonwastewaters only)	Cadmium	7440-43-9	NA	Macroencapsulation in accordance with s. NR 668.45.
D007[9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Chromium (Total)	7440-47-3	2.77 and meet s. NR 668.48 standards[8]	0.60 mg/L TCLP and meet s. NR 668.48 standards[8]
D008[9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Lead	7439-92-1	0.69 and meet s. NR 668.48 standards[8]	0.75 mg/L TCLP and meet s. NR 668.48 standards[8]
	Lead Acid Batteries Subcategory (Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of this chapter or exempted under other department regulations (see s. NR 666.80). This subcategory consists of nonwastewaters only.)	Lead	7439-92-1	NA	RLEAD
	Radioactive Lead Solids Subcategory (Note: These	Lead	7439-92-1	NA	MACRO

	lead solids include, but are not limited to, all forms of lead shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash. This subcategory consists of nonwastewaters only.)				
D009[9]	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues. (High Mercury-Organic Subcategory)	Mercury	7439-97-6	NA	IMERC; OR RMERC
	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC.	Mercury	7439-97-6	NA	RMERC

	(High Mercury-Inorganic Subcategory)				
	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury and that are residues from RMERC only. (Low Mercury Subcategory)	Mercury	7439-97-6	NA	0.20 mg/L TCLP and meet s. NR 668.48 standards[8]
	All other nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury and that are not residues from RMERC. (Low Mercury Subcategory)	Mercury	7439-97-6	NA	0.025 mg/L TCLP and meet s. NR 668.48 standards[8]
	All D009 wastewaters.	Mercury	7439-97-6	0.15 mg/L TCLP and meet s. NR 668.48 standards[8]	NA
	Elemental mercury contaminated with radioactive materials. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	AMLGM
	Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	IMERC

	Radioactively contaminated mercury containing batteries. (Note: This subcategory consists of nonwastewaters only)	Mercury	7439-97-6	NA	Macroencapsulation in accordance with s. NR 668.45.
D010[9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Selenium	7782-49-2	0.82 and meet s. NR 668.48 standards[8]	5.7 mg/L TCLP and meet s. NR 668.48 standards[8]
D011[9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Silver	7440-22-4	0.43 and meet s. NR 668.48 standards[8]	0.14 mg/L TCLP and meet s. NR 668.48 standards[8]
	Radioactively contaminated silver containing batteries. Note: This subcategory consists of nonwastewaters only)	Silver	7440-22-4	NA	Macroencapsulation in accordance with s. NR 668.45.
D012[9]	Wastes that are TC for Endrin based on the TCLP in SW846 Method 1311.	Endrin	72-20-8	BIODG; or CMBST	0.13 and meet s. NR 668.48 standards[8]
		Endrin aldehyde	7421-93-4	BIODG; or CMBST	0.13 and meet s. NR 668.48 standards[8]
D013[9]	Wastes that are TC for Lindane based on the TCLP in SW846 Method 1311.	alpha-BHC	319-84-6	CARBN; or CMBST	0.066 and meet s. NR 668.48 standards[8]
		beta-BHC	319-85-7	CARBN; or CMBST	0.066 and meet s. NR 668.48 standards[8]

		delta-BHC	319-86-8	CARBN; or CMBST	0.066 and meet s. NR 668.48 standards[8]
		gamma-BHC (Lindane)	58-89-9	CARBN; or CMBST	0.066 and meet s. NR 668.48 standards[8]
D014[9]	Wastes that are TC for Methoxychlor based on the TCLP in SW846 Method 1311.	Methoxychlor	72-43-5	WETOX or CMBST	0.18 and meet s. NR 668.48 standards[8]
D015[9]	Wastes that are TC for Toxaphene based on the TCLP in SW846 Method 1311.	Toxaphene	8001-35-2	BIODG or CMBST	2.6 and meet s. NR 668.48 standards[8]
D016[9]	Wastes that are TC for 2,4-D (2,4-Dichlorophenoxyacetic acid) based on the TCLP in SW846 Method 1311.	2,4,-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	CHOXD, BIODG, or CMBST	10 and meet s. NR 668.48 standards[8]
D017[9]	Wastes that are TC for 2,4,5-TP (Silvex) based on the TCLP in SW846 Method 1311.	2,4,5-TP (Silvex)	93-72-1	CHOXD or CMBST	7.9 and meet s. NR 668.48 standards[8]
D018[9]	Wastes that are TC for Benzene based on the TCLP in SW846 Method 1311.	Benzene	71-43-2	0.14 and meet s. NR 668.48 standards[8]	10 and meet s. NR 668.48 standards[8]
D019[9]	Wastes that are TC for Carbon tetrachloride based on the TCLP in SW846 Method 1311.	Carbon tetrachloride	56-23-5	0.057 and meet s. NR 668.48 standards[8]	6.0 and meet s. NR 668.48 standards[8]
D020[9]	Wastes that are TC for Chlordane based on the TCLP in SW846 Method 1311.	Chlordane (alpha and gamma isomers)	57-74-9	0.0033 and meet s. NR 668.48 standards[8]	0.26 and meet s. NR 668.48 standards[8]
D021[9]	Wastes that are TC for Chlorobenzene based on the	Chlorobenzene	108-90-7	0.057 and meet s. NR 668.48 standards[8]	6.0 and meet s. NR 668.48 standards[8]

	TCLP in SW846 Method 1311.				
D022[9]	Wastes that are TC for Chloroform based on the TCLP in SW846 Method 1311.	Chloroform	67-66-3	0.046 and meet s. NR 668.48 standards8	6.0 and meet s. NR 668.48 standards[8]
D023[9]	Wastes that are TC for o-Cresol based on the TCLP in SW846 Method 1311.	o-Cresol	95-48-7	0.11 and meet s. NR 668.48 standards[8]	5.6 and meet s. NR 668.48 standards[8]
D024[9]	Wastes that are TC for m-Cresol based on the TCLP in SW846 Method 1311.	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77 and meet s. NR 668.48 standards8	5.6 and meet s. NR 668.48 standards[8]
D025[9]9	Wastes that are TC for p-Cresol based on the TCLP in SW846 Method 1311.	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77 and meet s. NR 668.48 standards[8]	5.6 and meet s. NR 668.48 standards[8]
D026[9]	Wastes that are TC for Cresols (Total) based on the TCLP in SW846 Method 1311.	Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88 and meet s. NR 668.48 standards[8]	11.2 and meet s. NR 668.48 standards[8]
D027[9]	Wastes that are TC for p-Dichlorobenzene based on the TCLP in SW846 Method 1311.	p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	0.090 and meet s. NR 668.48 standards[8]	6.0 and meet s. NR 668.48 standards[8]
D028[9]	Wastes that are TC for 1,2-Dichloroethane based on the TCLP in SW846 Method 1311.	1,2-Dichloroethane	107-06-2	0.21 and meet s. NR 668.48 standards[8]	6.0 and meet s. NR 668.48 standards[8]
D029[9]	Wastes that are TC for 1,1-Dichloroethylene based on the TCLP in SW846 Method 1311.	1,1-Dichloroethylene	75-35-4	0.025 and meet s. NR 668.48 standards[8]	6.0 and meet s. NR 668.48 standards[8]
D030[9]	Wastes that are TC for 2,4-Dinitrotoluene based on the TCLP in SW846 Method 1311.	2,4-Dinitrotoluene	121-14-2	0.32 and meet s. NR 668.48 standards[8]	140 and meet s. NR 668.48 standards[8]

D031[9]	Wastes that are TC for Heptachlor based on the TCLP in SW846 Method 1311.	Heptachlor	76-44-8	0.0012 and meet s. NR 668.48 standards[8]	0.066 and meet s. NR 668.48 standards[8]
		Heptachlor epoxide	1024-57-3	0.016 and meet s. NR 668.48 standards[8]	0.066 and meet s. NR 668.48 standards[8]
D032[9]	Wastes that are TC for Hexachlorobenzene based on the TCLP in SW846 Method 1311.	Hexachlorobenzene	118-74-1	0.055 and meet s. NR 668.48 standards[8]	10 and meet s. NR 668.48 standards[8]
D033[9]	Wastes that are TC for Hexachlorobutadiene based on the TCLP in SW846 Method 1311.	Hexachlorobutadiene	87-68-3	0.055 and meet s. NR 668.48 standards[8]	5.6 and meet s. NR 668.48 standards[8]
D034[9]	Wastes that are TC for Hexachloroethane based on the TCLP in SW846 Method 1311.	Hexachloroethane	67-72-1	0.055 and meet s. NR 668.48 standards[8]	30 and meet s. NR 668.48 standards[8]
D035[9]	Wastes that are TC for Methyl ethyl ketone based on the TCLP in SW846 Method 1311.	Methyl ethyl ketone	78-93-3	0.28 and meet s. NR 668.48 standards[8]	36 and meet s. NR 668.48 standards[8]
D036[9]	Wastes that are TC for Nitrobenzene based on the TCLP in SW846 Method 1311.	Nitrobenzene	98-95-3	0.068 and meet s. NR 668.48 standards[8]	14 and meet s. NR 668.48 standards[8]
D037[9]	Wastes that are TC for Pentachlorophenol based on the TCLP in SW846 Method 1311.	Pentachlorophenol	87-86-5	0.089 and meet s. NR 668.48 standards[8]	7.4 and meet s. NR 668.48 standards[8]
D038[9]	Wastes that are TC for Pyridine based on the TCLP in SW846 Method 1311.	Pyridine	110-86-1	0.014 and meet s. NR 668.48 standards[8]	16 and meet s. NR 668.48 standards[8]
D039[9]	Wastes that are TC for Tetrachloroethylene based	Tetrachloroethylene	127-18-4	0.056 and meet s. NR 668.48 standards[8]	6.0 and meet s. NR 668.48 standards[8]

	on the TCLP in SW846 Method 1311.				
D040[9]	Wastes that are TC for Trichloroethylene based on the TCLP in SW846 Method 1311.	Trichloroethylene	79-01-6	0.054 and meet s. NR 668.48 standards[8]	6.0 and meet s. NR 668.48 standards[8]
D041[9]	Wastes that are TC for 2,4,5-Trichlorophenol based on the TCLP in SW846 Method 1311.	2,4,5-Trichlorophenol	95-95-4	0.18 and meet s. NR 668.48 standards[8]	7.4 and meet s. NR 668.48 standards[8]
D042[9]	Wastes that are TC for 2,4,6-Trichlorophenol based on the TCLP in SW846 Method 1311.	2,4,6-Trichlorophenol	88-06-2	0.035 and meet s. NR 668.48 standards[8]	7.4 and meet s. NR 668.48 standards[8]
D043[9]	Wastes that are TC for Vinyl chloride based on the TCLP in SW846 Method 1311.	Vinyl chloride	75-01-4	0.27 and meet s. NR 668.48 standards[8]	6.0 and meet s. NR 668.48 standards[8]
F001, F002, F003, F004, & F005	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-	Acetone	67-64-1	0.28	160
		Benzene	71-43-2	0.14	10
		n-Buthyl alcohol	71-36-3	5.6	2.6
		Carbon disulfide	75-15-0	3.8	NA
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chlorobenzene	108-90-7	0.057	6.0
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cresol-mixed isomers (Cresylic acid) (sum of o-,	1319-77-3	0.88	11.2

	trichloro-1,2,2-trifluoroethane, trichloroethylene, trichlorofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in s. NR 661.0031.	m-, and p-cresol concentrations)			
		Cyclohexanone	108-94-1	0.36	NA
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Ethyl acetate	141-78-6	0.34	33
		Ethyl benzene	100-41-4	0.057	10
		Ethyl ether	60-29-7	0.12	160
		Isobutyl alcohol	78-83-1	5.6	170
		Methanol	67-56-1	5.6	NA
		Methylene chloride	75-9-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Nitrobenzene	98-95-3	0.068	14
		Pyridine	110-86-1	0.014	16
		Tetrachloroethylene	127-18-4	0.056	6.0
		Toluene	108-88-3	0.080	10
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
		Trichloroethylene	79-01-6	0.054	6.0
		Trichlorofluoromethane	75-69-4	0.020	30

		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
	F003 and/or F005 solvent wastes that contain any combination of one or more of the following three solvents as the only listed F001-5 solvents: carbon disulfide, cyclohexanone, and/or methanol. (formerly s. NR 668.41 (3))	Carbon disulfide	75-15-0	3.8	4.8 mg/L TCLP
		Cyclohexanone	108-94-1	0.36	0.75 mg/L TCLP
		Methanol	67-56-1	5.6	0.75 mg/L TCLP
	F005 solvent waste containing 2-Nitropropane as the only listed F001-5 solvent.	2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
	F005 solvent waste containing 2-Ethoxyethanol as the only listed F001-5 solvent.	2-Ethoxyethanol	110-80-5	BIODG; or CMBST	CMBST
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
F007		Cadmium	7440-43-9	NA	0.11 mg/L TCLP

	Spent cyanide plating bath solutions from electroplating operations.	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	Cadmium	7440-43-9	NA	0.11 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	Cadmium	7440-43-9	NA	0.11 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30

		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	NA
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	Cadmium	7440-43-9	NA	0.11 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	Cadmium	7440-43-9	NA	0.11 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/L TCLP

		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amendable)7	57-12-5	0.86	30
F020, F021, F022, F023, F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives, excluding wastes from the production of Hexachlorophene from highly purified, 2,4,5-trichlorophenol (F020); (2) pentachlorophenol, or of intermediates used to produce its derivatives (i.e., F021); (3) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (i.e., F022); and from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenols,	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		Hx CDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachlorophenol	87-86-5	0.089	7.4
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	.18	7.4
		2,4-6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4

	excluding wastes from equipment used only for the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F023); (2) tetra- penta, or hexachlorobenzenes under alkaline conditions (i.e., F026).				
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in s. NR 661.0031 or s. NR 661.0032).	All F024 wastes	NA	CMBST11	CMBST11
		2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
		3-Chloropropylene	107-05-1	0.036	30
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,2-Dichloropropane	78-87-5	0.85	18
		cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1-3-Dichloropropylene	10061-02-6	0.036	18
		bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
		Hexachloroethane	67-72-1	0.055	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
F025	Condensed light ends from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0

	having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025—Light Ends Subcategory	Methylene chloride	75-9-2	0.089	30
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
	Spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025—Spent Filters/Aids and Desiccants Subcategory	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Methylene chloride	75-9-2	0.089	30
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachlorophenol	87-86-5	0.089	7.4

		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Wastes Nos. F020, F021, F023, F026, and F027.	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachlorophenol	87-86-5	0.089	7.4
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4

F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with s. NR 661.0035 or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or penta-chlorophenol.	Acenaphthene	83-32-9	0.059 0.059 0.059 0.11 0.11 0.061 0.059 0.055 0.036 0.059 0.000063, or CMBST11 0.000063, or CMBST11	3.4 3.4 3.4 6.8 6.8 3.4 3.4 8.2 14 3.4 0.001, or CMBST11 0.001, or CMBST11
		Anthracene	120-12-7		
		Benz(a)anthracene	56-55-3		
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2		
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9		
		Benzo(a)pyrene	50-32-8		
		Chrysene	218-01-9		
		Dibenz(a,h) anthracene	53-70-3		
		2-4-Dimethyl phenol	105-67-9		
		Fluorene	86-73-7		

		Hexachlorodibenzo-p-dioxins	NA		
		Hexachlorodibenzofurans	NA		
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Pentachlorodibenzo-p-dioxins	NA	0.000063, or CMBST11	0.001, or CMBST11
		Pentachlorodibenzofurans	NA	0.00035, or CMBST11	0.001, or CMBST11
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Tetrachlorodibenzo-p-dioxins	NA	0.000063, or CMBST11	0.001, or CMBST11
		Tetrachlorodibenzofurans	NA	0.000063, or CMBST11	0.001, or CMBST11
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
F034	Wasteswaters (except those that have not come into contact with process contaminants), process residuals, preservative	Acenaphthene	83-32-9	0.059	3.4
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4

	drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Fluorene	86-73-7	0.059	3.4
		Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP

	treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.				
F037	Petroleum refinery primary oil/water/solids separation sludge—Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in s. NR 661.0031 (2) (b) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.	Acenaphthene	83-32-9	0.059	NA
		Anthracene	120-12-7	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.028	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590

		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/L TCLP
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air floatation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in s. NR 661.0031 (2) (b) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological units) and F037, K048, and K051 are not included in this listing.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/L TCLP
F039		Acenaphthylene	208-96-8	0.059	3.4

	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subch. D . (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)	Acenaphthene	83-32-9	0.059	3.4
		Acetone	67-64-1	0.28	160
		Acetonitrile	75-05-8	5.6	NA
		Acetophenone	96-86-2	0.010	9.7
		2-Acetylaminofluorene	53-96-3	0.059	140
		Acrolein	107-02-8	0.29	NA
		Acrylonitrile	107-13-1	0.24	84
		Aldrin	309-00-2	0.021	0.066
		4-Aminobiphenyl	92-67-1	0.13	NA
		Aniline	62-53-3	0.81	14
		o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
		Anthracene	120-12-7	0.059	3.4
		Aramite	140-57-8	0.36	NA
		alpha-BHC	319-84-6	0.00014	0.066
		beta-BHC	319-85-7	0.00014	0.066
		delta-BHC	319-86-8	0.023	0.066
		gamma-BHC	58-89-9	0.0017	0.066
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8

		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Bromodichloromethane	75-27-4	0.35	15
		Methyl bromide (Bromomethane)	74-83-9	0.11	15
		4-Bromophenyl phenyl ether	101-55-3	0.055	15
		n-Butyl alcohol	71-36-3	5.6	2.6
		Butyl benzyl phthalate	85-68-7	0.017	28
		2-sec-Buty-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
		Carbon disulfide	75-15-0	3.8	NA
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		p-Chloroaniline	106-47-8	0.46	16
		Chlorobenzene	108-90-7	0.057	6.0
		Chlorobenzilate	510-15-6	0.10	NA
		2-Chloro-1,3-butadiene	126-99-8	0.057	NA
		Chlorodibromomethane	124-48-1	0.057	15
		Chloroethane	75-00-3	0.27	6.0

		bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
		bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
		Chloroform	67-66-3	0.046	6.0
		bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
		p-Chloro-m-cresol	59-50-7	0.018	14
		Chloromethane (Methyl chloride)	74-87-3	0.19	30
		2-Chloronaphthalene	91-58-7	0.055	5.6
		2-Chlorophenol	95-57-8	0.044	5.7
		3-Chloropropylene	107-05-1	0.036	30
		Chrysene	218-01-9	0.059	3.4
		o-Cresol	95-48-7	0.11	5.6
		p-Cresidine	120-71-8	0.010	0.66
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cyclohexanone	108-94-1	0.36	NA
		1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
		Dibromomethane	74-95-3	0.11	15

		2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
		o,p′-DD	53-19-0	0.023	0.087
		p,p′-DDD	72-54-8	0.023	0.087
		o,p′-DDE	3424-82-6	0.031	0.087
		p,p′-DDE	72-55-9	0.031	0.087
		o,p′-DDT	789-02-6	0.0039	0.087
		p,p′-DDT	50-29-3	0.0039	0.087
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Dibenz(a,e)pyrene	192-65-4	0.061	NA
		m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Dichlorodifluoromethane	75-71-8	0.23	7.2
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0
		trans-1,2-Dichloroethylene	156-60-5	0.054	30
		2,4-Dichlorophenol	120-83-2	0.044	14
		2,6-Dichlorophenol	87-65-0	0.044	14
		1,2-Dichloropropane	78-87-5	0.85	18

		cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
		Dieldrin	60-57-1	0.017	0.13
		Diethyl phthalate	84-66-2	0.20	28
		2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
		2-4-Dimethyl phenol	105-67-9	0.036	14
		Dimethyl phthalate	131-11-3	0.047	28
		Di-n-butyl phthalate	84-74-2	0.057	28
		1,4-Dinitrobenzene	100-25-4	0.32	2.3
		4,6-Dinitro-o-cresol	534-52-1	0.28	160
		2,4-Dinitrophenol	51-28-5	0.12	160
		2,4-Dinitrotoluene	121-14-2	0.32	140
		2,6-Dinitrotoluene	606-20-2	0.55	28
		Di-n-octyl phthalate	117-84-0	0.017	28
		Di-n-propylnitrosamine	621-64-7	0.40	14
		1,4-Dioxane	123-91-1	12.0	170
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	NA
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	NA
		1,2-Diphenylhydrazine	122-66-7	0.087	NA

		Disulfoton	298-04-4	0.017	6.2
		Endosulfan I	939-98-8	0.023	0.066
		Endosulfan II	33213-6-5	0.029	0.13
		Endosulfan sulfate	1031-07-8	0.029	0.13
		Endrin	72-20-8	0.0028	0.13
		Endrin aldehyde	7421-93-4	0.025	0.13
		Ethyl acetate	141-78-6	0.34	33
		Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
		Ethyl benzene	100-41-4	0.057	10
		Ethyl ether	60-29-7	0.12	160
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Ethyl methacrylate	97-63-2	0.14	160
		Ethylene oxide	75-21-8	0.12	NA
		Famphur	52-85-7	0.017	15
		Fluoranthene	206-44-0	0.068	3.4
		Fluorene	86-73-7	0.059	3.4
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035	0.0025

		1, 2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035	0.0025
		1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035	0.0025
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		Hexachloroethane	67-72-1	0.055	30
		Hexachloropropylene	1888-71-7	0.035	30
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
		Indomethane	74-88-4	0.019	65
		Isobutyl alcohol	78-83-1	5.6	170
		Isodrin	465-73-6	0.021	0.066
		Isosafrole	120-58-1	0.081	2.6
		Kepone	143-50-8	0.0011	0.13
		Methacylonitrile	126-98-7	0.24	84
		Methanol	67-56-1	5.6	NA
		Methapyrilene	91-80-5	0.081	1.5

		Methoxychlor	72-43-5	0.25	0.18
		3-Methylcholanthrene	56-49-5	0.0055	15
		4,4-Methylene bis(2-chloroaniline)	101-14-4	0.50	30
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Methyl methacrylate	80-62-6	0.14	160
		Methyl methanesulfonate	66-27-3	0.018	NA
		Methyl parathion	298-00-0	0.014	4.6
		Naphthalene	91-20-3	0.059	5.6
		2-Naphthylamine	91-59-8	0.52	NA
		p-Nitroaniline	100-01-6	0.028	28
		Nitrobenzene	98-95-3	0.068	14
		5-Nitro-o-toluidine	99-55-8	0.32	28
		p-Nitrophenol	100-02-7	0.12	29
		N-Nitrosodiethylamine	55-18-5	0.40	28
		N-Nitrosodimethylamine	62-75-9	0.40	NA
		N-Nitroso-di-n-butylamine	924-16-3	0.40	17
		N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
		N-Nitrosomorpholine	59-89-2	0.40	2.3

		N-Nitrosopiperidine	100-75-4	0.013	35
		N-Nitrosopyrrolidine	930-55-2	0.013	35
		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063	0.005
		1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063	0.005
		Parathion	56-38-2	0.014	4.6
		Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
		Pentachlorobenzene	608-93-5	0.055	10
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachloronitrobenzene	82-68-8	0.055	4.8
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenacetin	62-44-2	0.081	16
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		2,4-Dimethylaniline (2,4-xylidine)	108-45-2	0.010	0.66
		Phorate	298-02-2	0.021	4.6
		Phthalic anhydride	85-44-9	0.055	NA

		Pronamide	23950-58-5	0.093	1.5
		Pyrene	129-00-0	0.067	8.2
		Pyridine	110-86-1	0.014	16
		Safrole	94-59-7	0.081	22
		Silvex (2,4,5-TP)	93-72-1	0.72	7.9
		2,4,5-T	93-76-5	0.72	7.9
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Toluene	108-88-3	0.080	10
		Toxaphene	8001-35-2	0.0095	2.6
		Bromoform (Tribromomethane)	75-25-2	0.63	15
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0

		Trichloroethylene	79-01-6	0.054	6.0
		Trichlorofluoromethane	75-69-4	0.020	30
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		1,2,3-Trichloropropane	96-18-4	0.85	30
		1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
		tris(2,3-Dibromopropyl) phosphate	126-72-7	0.11	NA
		Vinyl chloride	75-01-4	0.27	6.0
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Antimony	7440-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Barium	7440-39-3	1.2	21 mg/L TCLP
		Beryllium	7440-41-7	0.82	NA
		Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	NA
		Fluoride	16984-48-8	35	NA

		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Mercury	7439-97-6	0.15	0.25 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Selenium	7782-49-2	0.82	5.7 mg/L TCLP
		Silver	7440-22-4	0.43	0.14 mg/L TCLP
		Sulfide	8496-25-8	14	NA
		Thallium	7440-28-0	1.4	NA
		Vanadium	7440-62-2	4.3	NA
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	Naphthalene	91-20-3	0.059	5.6
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP

K003	Wastewater treatment sludge from the production of molybdate orange pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
K005	Wastewater treatment sludge from the production of chrome green pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous).	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
	Wastewater treatment sludge from the production of chrome oxide green pigments (hydrated).	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	NA
K007	Wastewater treatment sludge from the production of iron blue pigments.	Chromium (Total)	7440-47-3	2,77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
K008	Oven residue from the production of chrome oxide green pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP

K009	Distillation bottoms from the production of acetaldehyde from ethylene.	Chloroform	67-66-3	0.046	6.0
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	Chloroform	67-66-3	0.046	6.0
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	38
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	38
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	38
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K015	Still bottoms from the distillation of benzyl chloride.	Anthracene	120-12-7	0.059	3.4
		Benzal chloride	98-87-3	0.055	6.0
		Benzo(b)fluoranthene (difficult to distinguish	205-99-2	0.11	6.8

		from benzo(k)fluoranthene)			
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Phenanthrene	85-01-8	0.059	5.6
		Toluene	108-88-3	0.080	10
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		Hexachloroethane	67-72-1	0.055	30
		Tetrachloroethylene	127-18-4	0.056	6.0
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	bis(2-Chloroethyl)ether 1,2-Dichloropropane 1,2,3-Trichloropropane	111-44-4 78-87-5 96-18-4	0.033 0.85 0.85	6.0 18 30
K018	Heavy ends from the fractionation column in ethyl chloride production.	Chloroethane	75-00-3	0.27	6.0
		Chloromethane	74-87-3	0.19	NA
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		Hexachlorobenzene	118-74-1	0.055	10

		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	NA	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		p-Dichlorobenzene	106-46-7	0.090	NA
		1,2-Dichloroethane	107-06-2	0.21	6.0
		Fluorene	86-73-7	0.059	NA
		Hexachloroethane	67-72-1	0.055	30
		Nephthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	NA
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	1,2-Dichloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethylene	107-06-2 79-34-6 127-18-4	0.21 0.057 0.056	6.0 6.0 6.0
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	Carbon tetrachloride Chloroform Antimony	56-23-5 67-66-3 7440-36-0	0.057 0.046 1.9	6.0 6.0

					1.15 mg/L TCLP
K022	Distillation bottoms tars from the production of phenol/acetone from cumene.	Toluene	108-88-3	0.080	10
		Acetophenone	96-86-2	0.010	9.7
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
		Phenol	108-95-2	0.039	6.2
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	NA	NA	LLEXT fb SSTRP fb CARBN; or CMBST	CMBST

K026	Stripping still tails from the production of methyl ethyl pyridines.	NA	NA	CMBST	CMBST
K027	Centrifuge and distillation residues from toluene diisocyanate production.	NA	NA	CARBN; or CMBST	CMBST
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	1,1-Dichloroethane	75-34-3	0.059	6.0
		trans-1,2-Dichloroethylene	156-60-5	0.054	30
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	NA	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Cadmium	7440-43-9	0.69	NA
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
K029	Waste from the product steam stripper in the	Chloroform	67-66-3	0.046	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0

	production of 1,1,1-trichloroethane.	1,1-Dichloroethylene	75-35-4	0.025	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
K030	Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.	o-Dichlorobenzene	95-50-1	0.088	NA
		p-Dichlorobenzene	106-46-7	0.090	NA
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Hexachloropropylene	1888-71-7	NA	30
		Pentachlorobenzene	608-93-5	NA	10
		Pentachloroethane	76-01-7	NA	6.0
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K031	By-product salts generated in the production of MSMA and cacodylic acid.	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
K032	Wastewater treatment sludge from the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	.057	2.4
		Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
K033	Wastewater and scrub water from the clorination of	Hexachlorocyclopentadiene	77-47-4	0.057	2.4

	cyclopentadiene in the production of chlordane.				
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
K035	Wastewater treatment sludges generated in the production of cresote.	Acenaphthene	83-32-9	NA	3.4
		Anthracene	120-12-7	NA	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Bemzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Dibenz(a,h)anthracene	53-70-3	NA	8.2
		Fluoranthene	206-44-0	0.068	3.4
		Fluorene	86-73-7	NA	3.4
		Indeno(1,2,3-cd)pyrene	193-39-5	NA	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-1	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2

K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	Disulfoton	298-04-4	0.017	6.2
K037	Wastewater treatment sludges from the production of disulfoton.	Disulfoton Toluene	298-04-4 108-88-3	0.017 0.080	6.2 10
K038	Wastewater from the washing and stripping of phorate production.	Phorate	298-02-2	0.021	4.6
K039	Filter cake from the filtration of diethylphorphorodithioic acid in the production of phorate.	NA	NA	CARBN; or CMBST	CMBST
K040	Wastewater treatment sludge from the production of phorate.	Phorate	298-02-2	0.021	4.6
K041	Wastewater treatment sludge from the production of toxaphene.	Toxaphene	8001-35-2	0.0095	2.6
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	2,4-Dichlorophenol	120-83-2	0.044	14
		2,6-Dichlorophenol	187-65-0	0.044	14
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4

		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Pentachlorophenol	87-86-5	0.089	7.4
		Tetrachloroethylene	127-18-4	0.056	6.0
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	NA	NA	DEACT	DEACT
K045	Spent carbon from the treatment of wastewater containing explosives.	NA	NA	DEACT	DEACT
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	Lead	7439-92-1	0.69	0.75 mg/L TCLP

K047	Pink/red water from TNT operations.	NA	NA	DEACT	DEACT
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-33	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Chanides (Total)7	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/L TCLP
K049	Slop oil emulsion solids from the petroleum refining industry.	Anthracene	120-12-7	0.059	3.4
		Benzene	71-43-2	0.14	10

		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
		Carbon disulfide	75-15-0	3.8	NA
		Chrysene	218-01-9	0.059	3.4
		2,4-Dimethylphenol	105-67-9	0.036	NA
		Ethylbenzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Cyanides (Total)7	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/L TCLP
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	Benzo(a)pyrene	50-32-8	0.061	3.4
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total)7	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP

		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/L TCLP
K051	API separator sludge from the petroleum refining industry.	Acenaphthene	83-32-9	0.059	NA
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	105-67-9	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Cyanides (Total)7	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP

		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/L TCLP
K052	Tank bottoms (leaded) from the petroleum refining industry.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		2,4-Dimethylphenol	105-67-9	0.036	NA
		Ethylbenzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Toluene	108-88-3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/L TCLP
K060		Benzene	71-43-2	0.14	10

	Ammonia still lime sludge from coking operations.	Benzo(a)pyrene	50-32-8	0.061	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total)7	57-12-5	1.2	590
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	Antimony	7440-36-0	NA	1.15 mg/L TCLP
		Arsenic	7440-38-2	NA	5.0 mg/L TCLP
		Barium	7440-39-3	NA	21 mg/L TCLP
		Beryllium	7440-41-7	NA	1.22 mg/L TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Mercury	7439-97-6	NA	0.025 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Selenium	7782-49-2	NA	5.7 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
		Thallium	7440-28-0	NA	0.20 mg/L TCLP
		Zinc	7440-66-6	NA	4.3 mg/L TCLP

K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	NA
K069	Emission control dust/sludge from secondary lead smelting—Calcium Sulfate (Low Lead) Subcategory	Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
	Emission control dust/sludge from secondary lead smelting—Non-Calcium Sulfate (High Lead) Subcategory	NA	NA	NA	RLEAD
K071	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are residues from RMERC.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.) nonwastewaters that are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/L TCLP
	All K071 wastewaters.	Mercury	7439-97-6	0.15	NA
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachloroethane	67-72-1	0.055	30

	anodes in chlorine production.	Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
K083	Distillation bottoms from aniline production.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10
		Cyclohexanone	108-94-1	0.36	NA
		Diphenylamine (difficult to distinguish from diphenylnitrosamine	122-39-4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
		Nickel	7440-02-0	3.98	11 mg/L TCLP
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	Benzene	71-43-2	0.14	10
		Chlorobenzene	108-90-7	0.057	6.0
		m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10

		Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K086	Solvent wastes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	Acetone	67-64-1	0.28	160
		Acetophenone	96-86-2	0.010	9.7
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		n-Butyl alcohol	71-36-3	5.6	2.6
		Butylbenzyl phthalate	85-68-7	0.017	28
		Cyclohexanone	108-94-1	0.36	NA
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Diethyl phthalate	84-66-2	0.20	28
		Dimethyl phthalate	131-11-3	0.047	28
		Di-n-butyl phthalate	84-74-2	0.057	28
		Di-n-octyl phthalate	117-84-0	0.017	28
		Ethyl acetate	141-78-6	0.34	33
		Ethylbenzene	100-41-4	0.057	10
		Methanol	67-56-1	5.6	NA
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33

		Methylene chloride	75-09-2	0.089	30
		Naphthalene	91-20-3	0.059	5.6
		Nitrobenzene	98-95-3	0.068	14
		Toluene	108-88-3	0.080	10
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
K087	Decanter tank tar sludge from coking operations.	Acenaphthylene	208-96-8	0.059	3.4
		Benzene	71-43-2	0.14	10
		Chrysene	218-01-9	0.059	3.4
		Fluoranthene	206-44-0	0.068	3.4
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o, m-, and p-xylene concentrations)	1330-20-7	0.32	30

		Lead	7439-92-1	0.69	0.75 mg/L TCLP
K088	Spent potliners from primary aluminum reduction.	Acenaphthene	83-32-9	0.059	3.4
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene	205-99-2	0.11	6.8
		Benzo(k)fluoranthene	207-08-9	0.11	6.8
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Fluoranthene	206-44-0	0.068	3.4
		Indeno(1,2,3,-cd)pyrene	193-39-5	0.0055	3.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Antimony	7440-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7440-38-2	1.4	26.1
		Barium	7440-39-3	1.2	21 mg/L TCLP
		Beryllium	7440-41-7	0.82	1.22 mg/L TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/L TCLP

		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Mercury	7439-97-6	0.15	0.025 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Selenium	7782-49-2	0.82	5.7 mg/L TCLP
		Silver	7440-22-4	0.43	0.14 mg/L TCLP
		Cyanide (Total)7	57-12-5	1.2	590
		Cyanide (Amenable)7	57-12-5	0.86	30
		Fluoride	16984-48-8	35	NA
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	0.055	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0

		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-1	0.054	6.0
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	m-Dichlorobenzene	541-73-1	0.036	6.0
		Pentachloroethane	76-01-1	0.055	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
K097	Vacuum stripper discharge from the chlordane clorinator in the production of chlordane.	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
K098	Untreated process wastewater from the production of toxaphene.	Toxaphene	8001-35-2	0.0095	2.6
K099	Untreated wastewater from the production of 2,4-D.	2,4-Dichlorophenoxyacetic acid	94-75-7	0.72	10

		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	Cadmium Chromium (Total) Lead	7440-43-9 7440-47-3 7439-92-1	0.69 2.77 0.69	0.11 mg/L TCLP 0.60 mg/L TCLP 0.75 mg/L TCLP
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitroaniline	88-74-4	0.27	14
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Cadmium	7440-43-9	0.69	NA
		Lead	7439-92-1	0.69	NA
		Mercury	7439-97-6	0.15	NA
K102	Residue from the use of activated carbon for decolorization in the	o-Nitrophenol	88-75-5	0.028	13
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP

	production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	Cadmium	7440-43-9	0.69	NA
		Lead	7439-92-1	0.69	NA
		Mercury	7439-97-6	0.15	NA
K103	Process residues from aniline extraction from the production of aniline.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10
		2,4-Dinitrophenol	51-28-5	0.12	160
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10
		2,4-Dinitrophenol	51-28-5	0.12	160
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total)7	57-12-5	1.2	590
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	Benzene	71-43-2	0.14	10
		Chlorobenzene	108-90-7	0.057	6.0
		2-Chlorophenol	95-57-8	0.044	5.7
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Phenol	108-95-2	0.039	6.2
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4

K106	K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain less than 260 mg/kg total mercury that are residues from RMERC.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
	Other K106 nonwastewaters that contain less than 260 mg/kg total mercury and are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/L TCLP
	All K106 wastewaters.	Mercury	7439-97-6	0.15	NA
K107	Column bottoms from production separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST

K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.	2,4-Dinitrotoluene	121-14-2	0.32	140
		2,6-Dinitrotoluene	606-20-2	0.55	28
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CARBN; or CMBST	CMBST
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CARBN; or CMBST	CMBST
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	Nickel	7440-02-2 NA	3.98	11 mg/L TCLP
		NA	NA	CARBN; or CMBST	CMBST
K116	Organic condensate from the solvent recovery column in	NA	NA	CARBN; or CMBST	CMBST

	the production of toluene diisocyanate via phosgenation of toluenediamine.				
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.046	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K118	Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.046	6.0
		Ethylene dibromide (1,2,-Dibromoethane)	106-93-4	0.028	15
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST

	ethylenebisdithiocarbamic acid and its salts.				
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.46	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-2-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4

K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.061	3.4
		Benzo(a)pyrene	50-32-8	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)flouranthene (difficult to distinguish from benzo(b)fluoranthene	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
K144	Wastewater sump residues from light oil refining, including, but not limited to,	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4

	intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.	Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Naphthalene	91-20-3	0.059	5.6
K147	Tar storage tank residues from coal tar refining.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8

		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
K148	Residues from coal tar distillation, including, but not limited to, still bottoms.	Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillations of benzyl chloride.)	Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.019	30
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Toluene	108-88-3	0.080	10

K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.019	30
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- or (methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	Benzene	71-43-2	0.14	10
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Tetrachloroethylene	127-18-4	0.056	6.0
		Toluene	108-88-3	0.080	10
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of	Acetonitrile	75-05-8	5.6	1.8
		Acetophenone	98-86-2	0.010	9.7
		Aniline	62-53-3	0.81	14

	carbamates and carbamoyl oximes	Benomyl10	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Benzene	71-43-2	0.14	10
		Carbaryl10	63-25-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbenzadim10	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Carbofuran10	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbosulfan10	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Methomyl10	16752-77-5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST

		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyridine	110-86-1	0.014	16
		Toluene	108-88-3	0.080	10
		Triethylamine	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.19	30
		Methomyl10	16752-77-5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Methylene chloride	75-09-2	0.089	30
		Methylethyl ketone	78-93-3	0.28	36
		Pyridine	110-86-1	0.014	16
		Triethylamine	121-44-8	0.081 or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
K158		Benzene	71-43-2	0.14	10

	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes	Carbenzadim10	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Carbofuran10	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbosulfan10	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Chloroform	67-66-3	0.046	6.0
		Methylene chloride	75-09-2	0.089	30
		Phenol	108-95-2	0.039	6.2
K159	Organics from the treatment of thiocarbamate wastes	Benzene	71-43-2	0.14	10
		Butylate10	2008-41-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		EPTC (Eptam)10	759-94-4	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Molinate10	2212-67-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

		Pebulate10	1114-71-2	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Vernolate10	1929-77-7	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K161	Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust and floor sweepings from the production of dithiocarbamate acids and their salts	Antimony	7440-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Carbon disulfide	75-15-0	3.8	4.8 mg/L TCLP
		Dithiocarbamates (total)10	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Selenium	7782-49-2	0.82	5.7 mg/L TCLP
K169	Crude oil tank sediment from petroleum refining operations.	Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Ethyl benzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	3.4

		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	81-05-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene (Methyl Benzene)	108-88-3	0.080	10
		Xylene(s) (Total)	1330-20-7	0.32	30
K170	Clarified slurry oil sediment from petroleum refining operations.	Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Ethyl benzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	3.4
		Indeno(1,3,4-cd)pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	81-05-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene (Methyl Benzene)	108-88-3	0.080	10
		Xylene(s) (Total)	1330-20-7	0.32	30
K171	Spent hydrotreating catalyst from petroleum refining operations, including guard	Benz(a)anthracene	56-55-3	0.059	3.4

	beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	Benzene	71-43-2	0.14	10
		Chrysene	218-01-9	0.059	3.4
		Ethyl benzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	81-05-8	0.059	5.6
		Pyrene	129-00-0	0.67	8.2
		Toluene (Methyl Benzene)	108-88-3	0.080	10
		Xylene(s) (Total)	1330-20-7	0.32	30
		Arsenic	7740-38-2	1.4	5 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Vanadium	7440-62-2	4.3	1.6 mg/L TCLP
		Reactive sulfides	NA	DEACT	DEACT
K172	Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media.).	Benzene	71-43-2	0.14	10
		Ethyl benzene	100-41-4	0.57	10
		Toluene (Methyl Benzene)	108-88-3	0.080	10
		Xylene(s) (Total)	1330-20-7	0.32	30
		Antimony	7740-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7740-38-2	1.4	5 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP

		Vanadium	7440-62-2	4.3	1.6 mg/L TCLP
		Reactive sulfides	NA	DEACT	DEACT
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer.	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035 or CMBST11	0.0025 or CMBST11
		1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035 or CMBST11	0.0025 or CMBST11
		1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035 or CMBST11	0.0025 or CMBST11
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063 or CMBST11	0.001 or CMBST11
		HxCDFs (All Hexachlorodibenzofurans)	55684-94-1	0.000063 or CMBST11	0.001 or CMBST11
		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063 or CMBST11	0.005 or CMBST11
		1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063 or CMBST11	0.005 or CMBST11
		PeCDDs (All Pentachlorodibenzo-p-dioxins	36088-22-9	0.000063 or CMBST11	0.001 or CMBST11
		PeCDFs (All Pentachlorodibenzofurans)	30402-15-4	0.000035 or CMBST11	0.001 or CMBST11
		TCDDs (All tetachlorodibenzo-p-dioxins)	41903-57-5	0.000063 or CMBST11	0.001 or CMBST11

		TCDFs (All tetrachlorodibenzofurans)	55722-27-5	0.000063 or CMBST11	0.001 or CMBST11
		Arsenic	7440-36-0	1.4	5.0 mg/L TCLP
K175	Wastewater treatment sludge from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process	Mercury12	7438-97-6	NA	0.025 mg/L TCLP
		pH12		NA	pH≤6.0
	All K175 wastewaters	Mercury	7438-97-6	0.15	NA
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide)	Antimony	7440-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Mercury	7439-97-6	0.15	0.025 mg/L TCLP
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide)	Antimony	7440-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-39-4	0.000035 or CMBST11	0.0025 or CMBST11
		1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035 or CMBST11	0.0025 or CMBST11

		1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035 or CMBST11	0.0025 or CMBST11
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063 or CMBST11	0.001 or CMBST11
		HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063 or CMBST11	0.001 or CMBST11
		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063 or CMBST11	0.005 or CMBST11
		1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063 or CMBST11	0.005 or CMBST11
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063 or CMBST11	0.001 or CMBST11
		PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035 or CMBST11	0.001 or CMBST11
		TCDDs (All tetrachlorodibenzo-p-dioxins)	41903-57-5	0.000063 or CMBST11	0.001 or CMBST11
		TCDFs (All tetrachlorodibenzo-furans)	55722-27-5	0.000063 or CMBST11	0.001 or CMBST11
		Thallium	7440-28-0	1.4	0.20 mg/L TCLP
K181	Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from	Aniline	62-53-3	0.81	14
		o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
		4-Chloroaniline	106-47-8	0.46	16

	other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in sub. (3) of s. NR 661.0032 that are equal to or greater than the corresponding sub. (3) levels, as determined on a calendar year basis	p-Cresidine	120-71-8	0.010	0.66
		2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
		1,2-Phenylenediamine	95-54-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN
		1,3-Phenylenediamine	108-45-2	0.010	0.66
P001	Warfarin, & salts, when present at concentrations greater than 0.3%	Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P002	1-Acetyl-2-thiourea	1-Acetyl-2-thiourea	591-08-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P003	Acrolein	Acrolein	107-02-8	0.29	CMBST
P004	Aldrin	Aldrin	309-00-2	0.021	0.066
P005	Allyl alcohol	Allyl alcohol	107-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P006	Aluminum phosphide	Aluminum phosphide	20859-73-8	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P007	5-Aminomethyl 3-isoxazolol	5-Aminomethyl 3-isoxazolol	2763-96-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P008	4-Aminopyridine	4-Aminopyridine	504-24-5	(WETOX or CHOXD) fb	CMBST

				CARBN; or CMBST	
P009	Ammonium picrate	Ammonium picrate	131-74-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P010	Arsenic acid	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P011	Arsenic pentoxide	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P012	Arsenic trioxide	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P013	Barium cyanide	Barium	7440-39-3	NA	21 mg/L TCLP
		Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
P014	Thiophenol (Benzene thiol)	Thiophenol (Benzene thiol)	108-98-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P015	Beryllium dust	Beryllium	7440-41-7	RMETL; or RTHRM	RMETL; or RTHRM
P016	Dichloromethyl ether (Bis(chloromethyl)ether)	Dichloromethyl ether	542-88-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P017	Bromoacetone	Bromoacetone	598-31-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P018	Brucine	Brucine	357-57-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P020	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
P021	Calcium cyanide	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
P022	Carbon disulfide	Carbon disulfide	75-15-0	3.8	CMBST
		Carbon disulfide; alternate6 standard for nonwastewaters only	75-15-0	NA	4.8 mg/L TCLP
P023	Chloroacetaldehyde	Chloroacetaldehyde	107-20-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P024	p-Chloroaniline	p-Chloroaniline	106-47-8	0.46	16
P026	1-(o-Chlorophenyl)thiourea	1-(o-Chlorophenyl)thiourea	5344-82-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P027	3-Chloropropionitrile	3-Chloropropionitrile	542-76-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P028	Benzyl chloride	Benzyl chloride	100-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P029	Copper cyanide	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
P030	Cyanides (soluble salts and complexes)	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30

P031	Cyanogen	Cyanogen	460-19-5	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P033	Cyanogen chloride	Cyanogen chloride	506-77-4	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P034	2-Cyclohexyl-4,6-dinitrophenol	2-Cyclohexyl-4,6-dinitrophenol	131-89-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P036	Dichlorophenylarsine	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P037	Dieldrin	Dieldrin	60-57-1	0.017	0.13
P038	Diethylarsine	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P039	Disulfoton	Disulfoton	298-04-4	0.017	6.2
P040	0,0-Diethyl O-pyrazinyl phosphorothioate	0,0-Diethyl O-pyrazinyl phosphorothioate	297-97-2	CARBN; or CMBST	CMBST
P041	Diethyl-p-nitrophenyl phosphate	Diethyl-p-nitrophenyl phosphate	311-45-5	CARBN; or CMBST	CMBST
P042	Epinephrine	Epinephrine	51-43-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P043	Diisopropylfluorophosphate (DFP)	Diisopropylfluorophosphate (DFP)	55-91-4	CARBN; or CMBST	CMBST
P044	Dimethoate	Dimethoate	60-51-5	CARBN; or CMBST	CMBST
P045	Thiofanox	Thiofanox	39196-18-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P046	alpha, alpha-Dimethylphenethylamine	alpha, alpha-Dimethylphenethylamine	122-09-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P047	4,6-Dinitro-o-cresol	4,6-Dinitro-o-cresol	543-52-1	0.28	160
	4,6-Dinitro-o-cresol salts	NA	NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P048	2,4-Dinitrophenol	2,4-Dinitrophenol	51-28-5	0.12	160
P049	Dithiobiuret	Dithiobiuret	541-53-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P050	Endosulfan	Endosulfan I	939-98-8	0.023	0.066
		Endosulfan II	33213-6-5	0.029	0.13
		Endosulfan sulfate	1031-07-8	0.029	0.13
P051	Endrin	Endrin	72-20-8	0.0028	0.13
		Endrin aldehyde	7421-93-4	0.025	0.13
P054	Aziridine	Aziridine	151-56-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P056	Fluorine	Fluoride (measured in wastewaters only)	16984-48-8	35	ADGAS fb NEUTR
P057	Fluoroacetamide	Fluoroacetamide	640-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P058	Fluoroacetic acid, sodium salt	Fluoroacetic acid, sodium salt	62-74-8	(WETOX or CHOXD) fb	CMBST

				CARBN; or CMBST	
P059	Heptachlor	Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
P060	Isodrin	Isodrin	465-73-6	0.021	0.066
P062	Hexaethyl tetraphosphate	Hexaethyl tetraphosphate	757-58-4	CARBN; or CMBST	CMBST
P063	Hydrogen cyanide	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
P064	Isocyanic acid, ethyl ester	Isocyanic acid, ethyl ester	624-83-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P065	Mercury fulminate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.	Mercury	7439-97-6	NA	IMERC
	Mercury fulminate nonwastewaters that are either incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	Mercury fulminate nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
	Mercury fulminate nonwastewaters that are incinerator residues and	Mercury	7439-97-6	NA	0.025 mg/L TCLP

	contain less than 260 mg/kg total mercury.				
	All mercury fulminate wastewaters.	Mercury	7439-97-6	0.15	NA
P066	Methomyl	Methomyl	16752-77-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P067	2-Methyl-aziridine	2-Methyl-aziridine	75-55-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P068	Methyl hydrazine	Methyl hydrazine	60-34-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P069	2-Methyllactonitrile	2-Methyllactonitrile	75-86-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P070	Aldicarb	Aldicarb	116-06-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P071	Methyl parathion	Methyl parathion	298-00-0	0.014	4.6
P072	1-Naphthyl-2-thiourea	1-Naphthyl-2-thiourea	86-88-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P073	Nickel carbonyl	Nickel	7440-02-0	3.98	11 mg/L TCLP
P074	Nickel cyanide	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30

		Nickel	7440-02-0	3.98	11 mg/L TCLP
P075	Nicotine and salts	Nicotine and salts	54-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P076	Nitric oxide	Nitric oxide	10102-43-9	ADGAS	ADGAS
P077	p-Nitroaniline	p-Nitroaniline	100-01-6	0.028	28
P078	Nitrogen dioxide	Nitrogen dioxide	10102-44-0	ADGAS	ADGAS
P081	Nitroglycerin	Nitroglycerin	55-63-0	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P082	N-Nitrosodimethylamine	N-Nitrosodimethylamine	62-75-9	0.40	2.3
P084	N-Nitrosomethylvinylamine	N-Nitrosomethylvinylamine	4549-40-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P085	Octamethylpyrophosphoramide	Octamethylpyrophosphoramide	152-16-9	CARBN; or CMBST	CMBST
P087	Osmium tetroxide	Osmium tetroxide	20816-12-0	RMETL; or RTHRM	RMETL; or RTHRM
P088	Endothall	Endothall	145-73-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P089	Parathion	Parathion	56-38-2	0.014	4.6
P092	Phenyl mercuric acetate nonwastewaters, regardless of their total mercury content, that are not	Mercury	7439-97-6	NA	IMERC; or RMERC

	incinerator residues or are not residues from RMERC.				
	Phenyl mercuric acetate nonwastewaters that are either incinerator residues or are residues from RMERC; and still contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	Phenyl mercuric acetate nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
	Phenyl mercuric acetate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.025 mg/L TCLP
	All phenyl mercuric acetate wastewaters.	Mercury	7439-97-6	0.15	NA
P093	Phenylthiourea	Phenylthiourea	103-85-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P094	Phorate	Phorate	298-02-2	0.021	4.6
P095	Phosgene	Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P096	Phosphine	Phosphine	7803-51-2	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P097	Famphur	Famphur	52-85-7	0.017	15

P098	Potassium cyanide	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
P099	Potassium silver cyanide	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
		Silver	7440-22-4	0.43	0.14 mg/L TCLP
P101	Ethyl cyanide (Propanenitrile)	Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
P102	Propargyl alcohol	Propargyl alcohol	107-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P103	Selenourea	Selenium	7782-49-2	0.82	5.7 mg/L TCLP
P104	Silver cyanide	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
		Silver	7440-22-4	0.43	0.14 mg/L TCLP
P105	Sodium azide	Sodium azide	26628-22-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P106	Sodium cyanide	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30
P108	Strychnine and salts	Strychnine and salts	57-24-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P109	Tetraethyldithiopyrophosphate	Tetraethyldithiopyrophosphate	3689-24-5	CARBN; or CMBST	CMBST
P110	Tetraethyl lead	Lead	7439-92-1	0.69	0.75 mg/L TCLP
P111	Tetraethylpyrophosphate	Tetraethylpyrophosphate	107-49-3	CARBN; or CMBST	CMBST
P112	Tetranitromethane	Tetranitromethane	509-14-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P113	Thallic oxide	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P114	Thallium selenite	Selenium	7782-49-2	0.82	5.7 mg/L TCLP
P115	Thallium (I) sulfate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P116	Thiosemicarbazide	Thiosemicarbazide	79-19-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P118	Trichloromethanethiol	Trichloromethanethiol	75-70-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P119	Ammonium vanadate	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P120	Vanadium pentoxide	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P121	Zinc cyanide	Cyanides (Total)7	57-12-5	1.2	590
		Cyanides (Amenable)7	57-12-5	0.86	30

P122	Zinc phosphide Zn3P2, when present at concentrations greater than 10%.	Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P123	Toxaphene	Toxaphene	8001-35-2	0.0095	2.6
P127	Carbofuran10	Carbofuran	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
P128	Mexacarbate10	Mexacarbate	315-18-4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P185	Tirpate10	Tirpate	26419-73-8	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P188	Physostigmine salicylate10	Physostigmine salicylate	57-64-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P189	Carbosulfan10	Carbosulfan	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P190	Metolcarb10	Metolcarb	1129-41-5	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P191	Dimetilan10	Dimetilan	644-64-4	0.056; or CMBST,	1.4; or CMBST

				CHOXD, BIODG or CARBN	
P192	Isolan10	Isolan	119-38-0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P194	Oxamyl10	Oxamyl	23135-22-0	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P196	Manganese dimethyldithio-carbamate10	Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
P197	Formparanate10	Formparante	17702-57-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P198	Formetanate hydrochloride10	Formetanate hydrochloride	23422-53-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P199	Methiocarb10	Methiocarb	2032-65-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P201	Promecarb10	Promecarb	2631-37-0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

P202	m-Cumenyl methylcarbamate10	m-Cumenyl methylcarbamate	64-00-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P203	Aldicarb sulfone10	Aldicarb sulfone	1646-88-4	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P204	Physostigmine10	Physostigmine	57-47-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P205	Ziram10	Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
U001	Acetaldehyde	Acetaldehyde	75-07-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U002	Acetone	Acetone	67-64-1	0.28	160
U003	Acetonitrile	Acetonitrile	75-05-8	5.6	CMBST
		Acetonitrile; alternate6 standard for nonwastewaters only	75-05-8	NA	38
U004	Acetophenone	Acetophenone	98-86-2	0.010	9.7
U005	2-Acetylaminofluorene	2-Acetylaminofluorene	53-96-3	0.059	140
U006	Acetyl chloride	Acetyl Chloride	75-36-5	(WETOX or CHOXD) fb	CMBST

				CARBN; or CMBST	
U007	Acrylamide	Acrylamide	79-06-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U008	Acrylic acid	Acrylic acid	79-10-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U009	Acrylonitrile	Acrylonitrile	107-13-1	0.24	84
U010	Mitomycin C	Mitomycin C	50-07-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U011	Amitrole	Amitrole	61-82-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U012	Aniline	Aniline	62-53-3	0.81	14
U014	Auramine	Auramine	492-80-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U015	Azaserine	Azaserine	115-02-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U016	Benz(c)acridine	Benz(c)acridine	225-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U017	Benzal chloride	Benzal chloride	98-87-3	(WETOX or CHOXD) fb	CMBST

				CARBN; or CMBST	
U018	Benz(a)anthracene	Benz(a)anthracene	56-55-3	0.059	3.4
U019	Benzene	Benzene	71-43-2	0.14	10
U020	Benzenesulfonyl chloride	Benzenesulfonyl chloride	98-09-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U021	Benzidine	Benzidine	92-87-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U022	Benzo(a)pyrene	Benzo(a)pyrene	50-32-8	0.061	3.4
U023	Benzotrichloride	Benzotrichloride	98-07-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOCS; CHRED; or CMBST
U024	bis(2-Chloroethoxy)methane	bis(2)Chloroethoxy)methane	111-91-1	0.036	7.2
U025	bis(2-Chloroethyl)ether	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
U026	Chlornaphazine	Chlornaphazine	494-03-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U027	bis(2-Chloroisopropyl)ether	bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
U028	bis(2-Ethylhexyl) phthalate	bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
U029	Methyl bromide (Bromomethane)	Methyl bromide (Bromomethane)	74-83-9	0.11	15

U030	4-Bromophenyl phenyl ether	4-Bromophenyl phenyl ether	101-55-3	0.055	15
U031	n-Butyl alcohol	n-Butyl alcohol	71-36-3	5.6	2.6
U032	Calcium chromate	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
U033	Carbon oxyfluoride	Carbon oxyfluoride	353-50-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U034	Trichloroacetaldehyde (Chloral)	Trichloroacetaldehyde (Chloral)	75-87-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U035	Chlorambucil	Chlorambucil	305-03-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U036	Chlordane	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
U037	Chlorobenzene	Chlorobenzene	108-90-7	0.057	60
U038	Chlorobenzilate	Chlorobenzilate	510-15-6	0.10	CMBST
U039	p-Chloro-m-cresol	p-Chloro-m-cresol	59-50-7	0.018	14
U041	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U042	2-Chloroethyl vinyl ether	2-Chloroethyl vinyl ether	110-75-8	0.062	CMBST
U043	Vinyl chloride	Vinyl chloride	75-01-4	0.27	6.0
U044	Chloroform	Chloroform	67-66-3	0.046	6.0

U045	Chloromethane (Methyl chloride)	Chloromethane (Methyl chloride)	74-87-3	0.19	30
U046	Chloromethyl methyl ether	Chloromethyl methyl ether	107-30-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U047	2-Chloronaphthalene	2-Chloronaphthalene	91-58-7	0.055	5.6
U048	2-Chlorophenol	2-Chlorophenol	95-57-8	0.044	5.7
U049	4-Chloro-o-toluidine hydrochloride	4-Chloro-o-toluidine hydrochloride	3165-93-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U050	Chrysene	Chrysene	218-01-9	0.059	3.4
U051	Creosote	Naphthalene	91-20-3	0.059	5.6
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
U052	Cresols (Cresylic acid)	o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6

		Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
U053	Crotonaldehyde	Crotonaldehyde	4170-30-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U055	Cumene	Cumene	98-82-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U056	Cyclohexane	Cyclohexane	110-82-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U057	Cyclohexanone	Cyclohexanone	108-94-1	0.36	CMBST
		Cyclohexanone; alternate6 standard for nonwastewaters only	108-94-1	NA	0.75 mg/L TCLP
U058	Cyclophosphamide	Cyclophosphamide	50-18-0	CARBN; or CMBST	CMBST
U059	Daunomycin	Daunomycin	20830-81-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U060	DDD	o,p′-DDD	53-19-0	0.023	0.087
		p,p′-DDD	72-54-8	0.023	0.087
U061	DDT	o-p′-DDT	789-02-6	0.0039	0.087
		p,p′-DDT	50-29-3	0.0039	0.087
		o,p′-DDD	53-19-0	0.023	0.087

		p,p′-DDD	72-54-8	0.023	0.087
		o,p′-DDE	3424-82-6	0.031	0.087
		p,p′-DDE	72-55-9	0.031	0.087
U062	Diallate	Diallate	2303-16-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U063	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene	53-70-3	0.055	8.2
U064	Dibenz(a,i)pyrene	Dibenz(a,i)pyrene	189-55-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U066	1,2-Dibromo-3-chloropropane	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
U067	Ethylene dibromide (1,2-Dibromoethane)	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
U068	Dibromomethane	Dibromomethane	74-95-3	0.11	15
U069	Di-n-butyl phthalate	Di-n-butyl phthalate	84-74-2	0.057	28
U070	o-Dichlorobenzene	o-Dichlorobenzene	95-50-1	0.088	6.0
U071	m-Dichlorobenzene	m-Dichlorobenzene	541-73-1	0.036	6.0
U072	p-Dichlorobenzene	p-Dichlorobenzene	106-46-7	0.090	6.0
U073	3,3′-Dichlorobenzidine	3,3′-Dichlorobenzidine	91-94-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U074	1,4-Dichloro-2-butene	cis,1,4-Dichloro-2-butene	1476-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

		trans-1,4-Dichloro-2-butene	764-41-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U075	Dichlorodifluoromethane	Dichlorodifluoromethane	75-71-8	0.23	7.2
U076	1,1-Dichloroethane	1,1-Dichloroethane	75-34-3	0.059	6.0
U077	1,2-Dichloroethane	1,2-Dichloroethane	107-06-2	0.21	6.0
U078	1,1-Dichloroethylene	1,1-Dichloroethylene	75-35-4	0.025	6.0
U079	1,2-Dichloroethylene	trans-1,2-Dichloroethylene	156-60-5	0.054	30
U080	Methylene chloride	Methylene chloride	75-09-2	0.089	30
U081	2,4-Dichlorophenol	2,4-Dichlorophenol	120-83-2	0.044	14
U082	2,6-Dichlorophenol	2,6-Dichlorophenol	87-65-0	0.044	14
U083	1,2-Dichloropropane	1,2-Dichloropropane	78-87-5	0.85	18
U084	1,3-Dichloropropylene	cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
U085	1,2:3,4-Diepoxybutane	1,2,3,4-Diepoxybutane	1464-53-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U086	N,N′-Diethylhydrazine	N,N′-Diethylhydrazine	1615-80-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U087	O,O-Diethyl S-methyldithiophosphate	O,O-Diethyl S-methyldithiophosphate	3288-58-2	CARBN; or CMBST	CMBST
U088	Diethyl phthalate	Diethyl phthalate	84-66-2	0.20	28

U089	Diethyl stilbestrol	Diethyl stilbestrol	56-53-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U090	Dihydrosafrole	Dihydrosafrole	94-58-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U091	3,3′-Dimethoxybenzidine	3,3′-Dimethoxybenzidine	119-90-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U092	Dimethylamine	Dimethylamine	124-40-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U093	p-Dimethylaminoazobenzene	p-Dimethylaminoazobenzene	60-11-7	0.13	CMBST
U094	7,12-Dimethylbenz(a)anthracene	7,12-Dimethylbenz(a)anthracene	57-97-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U095	3,3′-Dimethylbenzidine	3,3′-Dimethylbenzidine	119-93-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U096	alpha, alpha-Dimethyl benzyl hydroperoxide	alpha, alpha-Dimethyl benzyl hydroperoxide	80-15-9	CHOXD; CHRED; CARBN; BIODG; or CMBSt	CHOXD, CHRED; or CMBST
U097	Dimethylcarbamoyl chloride	Dimethylcarbamoyl chloride	79-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U098	1,1-Dimethylhydrazine	1,1-Dimethylhydrazine	57-14-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U099	1,2-Dimethylhydrazine	1,2-Dimethylhydrazine	540-73-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U101	2,4-Dimethylphenol	2,4-Dimethylphenol	105-67-9	0.036	14
U102	Dimethyl phthalate	Dimethyl phthalate	131-11-3	0.047	28
U103	Dimethyl sulfate	Dimethyl sulfate	77-78-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U105	2,4-Dinitrotoluene	2,4-Dinitrotoluene	121-14-2	0.32	140
U106	2,6-Dinitrotoluene	2,6-Dinitrotoluene	606-20-2	0.55	28
U107	Di-n-octyl phthalate	Di-n-octyl phthalate	117-84-0	0.017	28
U108	1,4-Dioxane	1,4-Dioxane	123-91-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		1,4-Dioxane, alternate6	123-91-1	12.0	170
U109	1,2-Diphenylhydrazine	1,2-Diphenylhydrazine	122-66-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
		1,2-Diphenylhydrazine; alternate6 standard for wastewaters only	122-66-7	0.087	NA

U110	Dipropylamine	Dipropylamine	142-84-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U111	Di-n-propylnitrosamine	Di-n-propylnitrosamine	621-64-7	0.40	14
U112	Ethyl acetate	Ethyl acetate	141-78-6	0.34	33
U113	Ethyl acrylate	Ethyl acrylate	140-88-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U114	Ethylenebisdithiocarbamic acid salts and esters	Ethylenebisdithiocarbamic acid	111-54-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U115	Ethylene oxide	Ethylene oxide	75-21-8	(WETOX or CHOXD) fb CARBN; or CMBST	CHOXD; or CMBST
		Ethylene oxide; alternate6 standard for wastewaters only	75-21-8	0.12	NA
U116	Ethylene thiourea	Ethylene thiourea	96-45-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U117	Ethyl ether	Ethyl ether	60-29-7	0.12	160
U118	Ethyl methacrylate	Ethyl methacrylate	97-63-2	0.14	160
U119	Ethyl methane sulfonate	Ethyl methane sulfonate	62-50-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U120	Fluoranthene	Fluoranthene	206-44-0	0.068	3.4

U121	Trichlorofluoromethane	Trichlorofluoromethane	75-69-4	0.020	30
U122	Formaldehyde	Formaldehyde	50-00-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U123	Formic acid	Formic acid	64-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U124	Furan	Furan	110-00-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U125	Furfural	Furfural	98-01-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U126	Gylcidyaldehyde	Glycidyaldehyde	765-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U127	Hexachlorobenzene	Hexachlorobenzene	118-74-1	0.055	10
U128	Hexachlorobutadiene	Hexachlorobutadiene	87-68-3	0.055	5.6
U129	Lindane	alpha-BHC	319-84-6	0.00014	0.066
		beta-BHC	319-85-7	0.00014	0.066
		delta-BHC	319-86-8	0.023	0.066
		gamma-BHC (Lindane)	58-89-9	0.0017	0.066
U130	Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
U131	Hexachloroethane	Hexachloroethane	67-72-1	0.055	30

U132	Hexachlorophene	Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U133	Hydrazine	Hydrazine	302-01-2	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U134	Hydrogen fluoride	Fluoride (measured in wastewaters only)	7664-39-3	35	ADGAS fb NEUTR; or NEUTR
U135	Hydrogen Sulfide	Hydrogen Sulfide	7783-06-4	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U136	Cacodylic acid	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
U137	Indeno(1,2,3-c,d)pyrene	Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
U138	Iodomethane	Iodomethane	74-88-4	0.19	65
U140	Isobutyl alcohol	Isobutyl alcohol	78-83-1	5.6	170
U141	Isosafrole	Isosafrole	120-58-1	0.081	2.6
U142	Kepone	Kepone	143-50-8	0.0011	0.13
U143	Lasiocarpine	Lasiocarpine	303-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U144	Lead acetate	Lead	7439-92-1	0.69	0.75 mg/L TCLP
U145	Lead phosphate	Lead	7439-92-1	0.69	0.75 mg/L TCLP
U146	Lead subacetate	Lead	7439-92-1	0.69	0.75 mg/L TCLP

U147	Maleic anhydride	Maleic anhydride	108-31-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U148	Maleic hydrazide	Maleic hydrazide	123-33-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U149	Malononitrile	Malononitrile	109-77-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U150	Melphalan	Malphalan	148-82-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U151	U151 (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
	U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/L TCLP
	All U151 (mercury) wastewaters.	Mercury	7439-97-6	0.15	NA
	Elemental Mercury Contaminated with Radioactive Materials	Mercury	7439-97-6	NA	AMLGM
U152	Methacrylonitrile	Methacrylonitrile	126-98-7	0.24	84

U153	Methanethiol	Methanethiol	74-93-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U154	Methanol	Methanol	67-56-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		Methanol; alternate6 set of standards for both wastewaters and nonwastewaters	67-56-1	5.6	0.75 mg/L TCLP
U155	Methapyrilene	Methapyrilene	91-80-5	0.081	1.5
U156	Methyl chlorocarbonate	Methyl chlorocarbonate	79-22-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U157	3-Methylcholanthrene	3-Methylcholanthrene	56-49-5	0.0055	15
U158	4,4′-Methylene bis(2-chloroaniline)	4,4′-Methylene bis(2-chloroaniline)	101-14-4	0.50	30
U159	Methyl ethyl ketone	Methyl ethyl ketone	78-93-3	0.28	36
U160	Methyl ethyl ketone peroxide	Methyl ethyl ketone peroxide	1338-23-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U161	Methyl isobutyl ketone	Methyl isobutyl ketone	108-10-1	0.14	33
U162	Methyl methacrylate	Methyl methacrylate	80-62-6	0.14	160
U163	N-Methyl N′-nitro N-nitrosoguanidine	N-Methyl N′-nitro N-nitrosoguanidine	70-25-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U164	Methylthiouracil	Methylthiouracil	56-04-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U165	Naphthalene	Naphthalene	91-20-3	0.059	5.6
U166	1,4-Naphthoquinone	1,4-Naphthoquinone	130-15-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U167	1-Naphthylamine	1-Naphthylamine	134-32-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U168	2-Naphthylamine	2-Naphthylamine	91-59-8	0.52	CMBST
U169	Nitrobenzene	Nitrobenzene	98-95-3	0.068	14
U170	p-Nitrophenol	p-Nitrophenol	100-02-7	0.12	29
U171	2-Nitropropane	2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U172	N-Nitrosodi-n-butylamine	N-Nitrosodi-n-butylamine	924-16-3	0.040	17
U173	N-Nitrosodiethanolamine	N-Nitrosodiethanolamine	1116-54-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U174	N-Nitrosodiethylamine	N-Nitrosodiethylamine	55-18-5	0.40	28
U176	N-Nitroso-N-ethylurea	N-Nitroso-N-ethylurea	759-73-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U177	N-Nitroso-N-methylurea	N-Nitroso-N-methylurea	684-93-5	(WETOX or CHOXD) fb	CMBST

				CARBN; or CMBST	
U178	N-Nitroso-N-methylurethane	N-Nitroso-N-methylurethane	615-53-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U179	N-Nitrosopiperidine	N-Nitrosopiperidine	100-75-4	0.013	35
U180	N-Nitrosopyrrolidine	N-Nitrosopyrrolidine	930-55-2	0.013	35
U181	5-Nitro-o-toluidine	5-Nitro-o-toluidine	99-55-8	0.32	28
U182	Paraldehyde	Paraldehyde	123-63-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U183	Pentachlorobenzene	Pentachlorobenzene	608-93-5	0.055	10
U184	Pentachloroethane	Pentachloroethane	76-01-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		Pentachloroethane; alternate6 standards for both wastewaters and nonwastewaters	76-01-7	0.055	6.0
U185	Pentachloronitrobenzene	Pentachloronitrobenzene	82-68-8	0.055	4.8
U186	1,3-Pentadiene	1,3-Pentadiene	504-60-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U187	Phenacetin	Phenacetin	62-44-2	0.081	16
U188	Phenol	Phenol	108-95-2	0.039	6.2

U189	Phosphorus sulfide	Phosphorus sulfide	1314-80-3	CHOXD; CHRED; or CMBST	CHOXd; CHRED; or CMBST
U190	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
U191	2-Picoline	2-Picoline	109-06-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U192	Pronamide	Pronamide	23950-58-5	0.093	1.5
U193	1,3-Propane sultone	1,3-Propane sultone	1120-71-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U194	n-Propylamine	n-Propylamine	107-10-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U196	Pyridine	Pyridine	110-86-1	0.014	16
U197	p-Benzoquinone	p-Benzoquinone	106-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U200	Reserpine	Reserpine	50-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U201	Resorcinol	Resorcinol	108-46-3	(WETOX or CHOXD) fb	CMBST

				CARBN; or CMBST	
U203	Safrole	Safrole	94-59-7	0.081	22
U204	Selenium dioxide	Selenium	7782-49-2	0.82	5.7 mg/L TCLP
U205	Selenium sulfide	Selenium	7782-49-2	0.82	5.7 mg/L TCLP
U206	Streptozotocin	Streptozotocin	18883-66-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U207	1,2,4,5-Tetrachlorobenzene	1,2,4,5-Tetrachlorobenzene	95-94-5	0.055	14
U208	1,1,1,2-Tetrachloroethane	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
U209	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
U210	Tetrachloroethylene	Tetrachloroethylene	127-18-4	0.056	6.0
U211	Carbon tetrachloride	Carbon tetrachloride	56-23-5	0.057	6.0
U213	Tetrahydrofuran	Tetrahydrofuran	109-99-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U214	Thallium (I) acetate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U215	Thallium (I) carbonate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U216	Thallium (I) chloride	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U217	Thallium (I) nitrate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U218	Thioacetamide	Thioacetamide	62-55-5	(WETOX or CHOXD) fb	CMBST

				CARBN; or CMBST	
U219	Thiourea	Thiourea	62-56-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U220	Toluene	Toluene	108-88-3	0.080	10
U221	Toluenediamine	Toluenediamine	25376-45-8	CARBN; or CMBST	CMBST
U222	o-Toluidine hydrochloride	o-Toluidine hydrochloride	636-21-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U223	Toluene diisocyanate	Toluene diisocyanate	26471-62-5	CARBN; or CMBST	CMBST
U225	Bromoform (Tribromomethane)	Bromoform (Tribromomethane)	75-25-2	0.63	15
U226	1,1,1-Trichloroethane	1,1,1-Trichloroethane	71-55-6	0.054	6.0
U227	1,1,2-Trichloroethane	1,1,2-Trichloroethane	79-00-5	0.054	6.0
U228	Trichloroethylene	Trichloroethylene	79-01-6	0.054	6.0
U234	1,3,5-Trinitrobenzene	1,3,5-Trinitrobenzene	99-35-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U235	tris-(2,3-Dibromopropyl)-phosphate	tris-(2,3-Dibromopropyl)-phosphate	126-72-7	0.11	0.10
U236	Trypan Blue	Trypan Blue	72-57-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U237	Uracil mustard	Uracil mustard	66-75-1	(WETOX or CHOXD) fb	CMBST

				CARBN; or CMBST	
U238	Urethane (Ethyl carbamate)	Urethane (Ethyl carbamate)	51-79-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U239	Xylenes	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
U240	2,4-D (2,4-Dichlorophenoxyacetic acid)	2,4-D(2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
	2,4-D (2,4-Dichlorophenoxyacetic acid) salts and esters		NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U243	Hexachloropropylene	Hexachloropropylene	1888-71-7	0.035	30
U244	Thiram	Thiram	137-26-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U246	Cyanogen bromide	Cyanogen bromide	506-68-3	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
U247	Methoxychlor	Methoxychlor	72-43-5	0.25	0.18
U248	Warfarin, & salts, when present at concentrations of 0.3% or less	Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U249	Zinc phosphide, Zn3,P2, when present at concentrations of 10% or less	Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST

U271	Benomyl10	Benomyl	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U278	Bendiocarb10	Bendiocarb	22781-23-3	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U279	Carbaryl10	Carbaryl	63-25-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
U280	Barban10	Barban	101-27-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U328	o-Toluidine	o-Toluidine	95-53-4	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U353	p-Toluidine	p-Toluidine	106-49-0	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U359	2-Ethoxyethanol	2-Ethoxyethanol	110-80-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST

U364	Bendiocarb phenol10	Bendiocarb phenol	22961-82-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U367	Carbofuran phenol10	Carbofuran phenol	1563-38-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U372	Carbendazim10	Carbendazim	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U373	Propham10	Propham	122-42-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U387	Prosulfocarb10	Prosulfocarb	52888-80-9	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U389	Triallate10	Triallate	2303-17-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U394	A221310	A2213	30558-43-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U395	Diethylene glycol, dicarbamate10	Diethylene glycol, dicarbamate	5952-26-1	0.056; or CMBST, CHOXD,	1.4; or CMBST

				BIODG or CARBN	
U404	Triethylamine10	Triethylamine	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
U409	Thiophanate-methyl10	Thiophanate-methyl	23564-05-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U410	Thiodicarb10	Thiodicarb	59669-26-0	0.019; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U411	Propoxur10	Propoxur	114-26-1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

FOOTNOTES TO TREATMENT STANDARD TABLE 668.40

1	The waste descriptions provided in this table do not replace waste descriptions in ch. NR 661. Descriptions of Treatment/Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.
2	CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.
3	Concentration standards for wastewaters are expressed in mg/L and are based on analysis of composite samples.
4	All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in s. NR 668.42 Table 1—Technology Codes and Descriptions of Technology-Based Standards.

5	Except for metals (EP or TCLP) and cyanides (total and amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated according to the technical requirements of subch. O of ch. NR 664 or subch. O of ch. NR 665, or based upon combustion in fuel substitution units operating according to applicable technical requirements. A facility may comply with these treatment standards according to s. NR 668.40 (4). All concentration standards for nonwastewaters are based on analysis of grab samples.
7	Both cyanides (total) and cyanides (amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA SW−846 incorporated by reference in s. NR 660.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
8	These wastes, when rendered nonhazardous and then subsequently managed under ch. 283, Stats., or CWA−equivalent systems are not subject to treatment standards (see s. NR 668.01 (3) (d)).
9	These wastes, when rendered nonhazardous and then subsequently injected in a Class SDWA well, are not subject to treatment standards (see NR 665 subch. R).
10	The treatment standard for this waste may be satisfied by either meeting the constituent concentrations in this table or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at s. NR 668.42, Table 1, for nonwastewaters; and biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at s. NR 668.42, Table 1, for wastewaters.
11	For these wastes, the definition of CMBST is limited to: (1) combustion units operating under ch. NR 666, (2) combustion units licensed under subch. O of ch. NR 664, or (3) combustion units licensed under subch. O of ch. NR 665 which have obtained a determination of equivalent treatment under s. NR 668.42 (2).
12	Disposal of K175 wastes that have complied with all applicable s. NR 668.40 treatment standards must also be macroencapsulated in accordance with s. NR 668.45, Table 1 unless the waste is placed in one of the following: (1) A hazardous waste monofill containing only K175 wastes that meet all applicable s. NR 668.40 treatment standards. (2) A dedicated hazardous waste landfill cell in which all other wastes being co−disposed are at pH <= 6.0.

13	"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA SW−846, incorporated by reference in s. NR 660.11.

SECTION 205. NR 668.45 (1) (intro.), (b) and (2) (a) are amended to read:

NR 668.45 (1) (intro.) Hazardous debris shall be treated prior to land disposal unless the department determines under s. NR ~~661.03~~ 661.0003 (6) (b) that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste−specific treatment standard provided in this subchapter for the waste contaminating the debris.

(b) *Characteristic debris.* Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under ss. NR ~~661.21~~ 661.0021, ~~661.22~~ 661.0022 and ~~661.23~~ 661.0023, respectively, shall be deactivated by treatment using one of the technologies identified in Table 1.

(2) (a) *Toxicity characteristic debris.* The contaminants subject to treatment for debris that exhibits the toxicity characteristic (TC) by s. NR ~~661.24~~ 661.0024 are those EP constituents for which the debris exhibits the TC toxicity characteristic.

SECTION 206. NR 668.48 Table and table note 6 are amended to read:

NR 668.48 - Universal Treatment Standards

Regulated constituent common name	CAS[1] Number	Wastewater Standard	Nonwastewater Standard
		Concentration in mg/L[2]	Concentration in mg/kg[3] unless noted as "mg/L TCLP"
Organic Constituents			
Acenaphthylene	208−96−8	0.059	3.4
Acenaphthene	83−32−9	0.059	3.4
Acetone	67−64−1	0.28	160
Acetonitrile	75−05−8	5.6	38
Acetophenone	96−86−2	0.010	9.7
2−Acetylaminofluorene	53−96−3	0.059	140
Acrolein	107−02−8	0.29	NA
Acrylamide	79−06−1	19	23
Acrylonitrile	107−13−1	0.24	84
~~Aldicarb sulfone[6]~~	~~1646−88−4~~	~~0.056~~	~~0.28~~
Aldrin	309−00−2	0.021	0.066
4−Aminobiphenyl	92−67−1	0.13	NA
Aniline	62−53−3	0.81	14

o−Anisidine (2−methoxyaniline)	90−04−0	0.010	0.66
Anthracene	120−12−7	0.059	3.4
Aramite	140−57−8	0.36	NA
alpha−BHC	319−84−6	0.00014	0.066
beta−BHC	319−85−7	0.00014	0.066
delta−BHC	319−86−8	0.023	0.066
gamma−BHC	58−89−9	0.0017	0.066
~~Barban[6]~~	~~101−27−9~~	~~0.056~~	~~1.4~~
~~Bendiocarb[6]~~	~~22781−23−3~~	~~0.056~~	~~1.4~~
~~Benomyl[6]~~	~~17804−35−2~~	~~0.056~~	~~1.4~~
Benzene	71−43−2	0.14	10
Benz(a)anthracene	56−55−3	0.059	3.4
Benzal chloride	98−87−3	0.055	6.0
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205−99−2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207−08−9	0.11	6.8
Benzo(g,h,i)perylene	191−24−2	0.0055	1.8
Benzo(a)pyrene	50−32−8	0.061	3.4
Bromodichloromethane	75−27−4	0.35	15
Bromomethane/Methyl bromide	74−83−9	0.11	15
4−Bromophenyl phenyl ether	101−55−3	0.055	15
n−Butyl alcohol	71−36−3	5.6	2.6
~~Butylate[6]~~	~~2008−41−5~~	~~0.042~~	~~1.4~~
Butyl benzyl phthalate	85−68−7	0.017	28
2−sec−Butyl−4,6−dinitrophenol/Dinoseb	88−85−7	0.066	2.5
~~Carbaryl[6]~~	~~63−25−2~~	~~0.006~~	~~0.14~~
~~Carbenzadim[6]~~	~~10605−21−7~~	~~0.056~~	~~1.4~~
~~Carbofuran[6]~~	~~1563−66−2~~	~~0.006~~	~~0.14~~
~~Carbofuran phenol[6]~~	~~1563−38−8~~	~~0.056~~	~~1.4~~
Carbon disulfide	75−15−0	3.8	4.8 mg/L TCLP
Carbon tetrachloride	56−23−5	0.057	6.0
~~Carbosulfan[6]~~	~~55285−14−8~~	~~0.028~~	~~1.4~~
Chlordane (alpha and gamma isomers)	57−74−9	0.0033	0.26
p−Chloroaniline	106−47−8	0.46	16
Chlorobenzene	108−90−7	0.057	6.0
Chlorobenzilate	510−15−6	0.10	NA
2−Chloro−1,3−butadiene	126−99−8	0.057	0.28
Chlorodibromomethane	124−48−1	0.057	15
Chloroethane	75−00−3	0.27	6.0
bis(2−Chloroethoxy)methane	111−91−1	0.036	7.2
bis(2−Chloroethyl)ether	111−44−4	0.033	6.0
Chloroform	67−66−3	0.046	6.0
bis(2−Chloroisopropyl)ether	39638−32−9	0.055	7.2
p−Chloro−m−cresol	59−50−7	0.018	14
2−Chloroethyl vinyl ether	110−75−8	0.062	NA
Chloromethane/Methyl chloride	74−87−3	0.19	30
2−Chloronaphthalene	91−58−7	0.055	5.6
2−Chlorophenol	95−57−8	0.044	5.7
3−Chloropropylene	107−05−1	0.036	30
Chrysene	218−01−9	0.059	3.4
p−Cresidine	120−71−8	0.010	0.66
o−Cresol	95−48−7	0.11	5.6

m−Cresol (difficult to distinguish from p−cresol)	108−39−4	0.77	5.6
p−Cresol (difficult to distinguish from m−cresol)	106−44−5	0.77	5.6
~~m−Cumenyl methylcarbamate[6]~~	~~64−00−6~~	~~0.056~~	~~1.4~~
Cyclohexanone	108−94−1	0.36	0.75 mg/L TCLP
o,p'−DDD	53−19−0	0.023	0.087
p,p'−DDD	72−54−8	0.023	0.087
o,p'−DDE	3424−82−6	0.031	0.087
p,p'−DDE	72−55−9	0.031	0.087
o,p'−DDT	789−02−6	0.0039	0.087
p,p'−DDT	50−29−3	0.0039	0.087
Dibenz(a,h)anthracene	53−70−3	0.055	8.2
Dibenz(a,e)pyrene	192−65−4	0.061	NA
1,2−Dibromo−3−chloropropane	96−12−8	0.11	15
1,2−Dibromoethane/Ethylene dibromide	106−93−4	0.028	15
Dibromomethane	74−95−3	0.11	15
m−Dichlorobenzene	541−73−1	0.036	6.0
o−Dichlorobenzene	95−50−1	0.088	6.0
p−Dichlorobenzene	106−46−7	0.090	6.0
Dichlorodifluoromethane	75−71−8	0.23	7.2
1,1−Dichloroethane	75−34−3	0.059	6.0
1,2−Dichloroethane	107−06−2	0.21	6.0
1,1−Dichloroethylene	75−35−4	0.025	6.0
trans−1,2−Dichloroethylene	156−60−5	0.054	30
2,4−Dichlorophenol	120−83−2	0.044	14
2,6−Dichlorophenol	87−65−0	0.044	14
2,4−Dichlorophenoxyacetic acid/2,4−D	94−75−7	0.72	10
1,2−Dichloropropane	78−87−5	0.85	18
cis−1,3−Dichloropropylene	10061−01−5	0.036	18
trans−1,3−Dichloropropylene	10061−02−6	0.036	18
Dieldrin	60−57−1	0.017	0.13
Diethyl phthalate	84−66−2	0.20	28
p−Dimethylaminoazobenzene	60−11−7	0.13	NA
2,4−Dimethylanaline (2,4−xylidine)	95−68−1	0.010	0.66
2−4−Dimethyl phenol	105−67−9	0.036	14
Dimethyl phthalate	131−11−3	0.047	28
Di−n−butyl phthalate	84−74−2	0.057	28
1,4−Dinitrobenzene	100−25−4	0.32	2.3
4,6−Dinitro−o−cresol	534−52−1	0.28	160
2,4−Dinitrophenol	51−28−5	0.12	160
2,4−Dinitrotoluene	121−14−2	0.32	140
2,6−Dinitrotoluene	606−20−2	0.55	28
Di−n−octyl phthalate	117−84−0	0.017	28
Di−n−propylnitrosamine	621−64−7	0.40	14
1,4−Dioxane	123−91−1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122−39−4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86−30−6	0.92	13
1,2−Diphenylhydrazine	122−66−7	0.087	NA
Disulfoton	298−04−4	0.017	6.2
~~Dithiocarbamates (total)[6]~~	~~NA~~	~~0.028~~	~~28~~
Endosulfan I	959−98−8	0.023	0.066
Endosulfan II	33213−65−9	0.029	0.13

Endosulfan sulfate	1031−07−8	0.029	0.13
Endrin	72−20−8	0.0028	0.13
Endrin aldehyde	7421−93−4	0.025	0.13
~~EPTC[6]~~	~~759−94−4~~	~~0.042~~	~~1.4~~
Ethyl acetate	141−78−6	0.34	33
Ethyl benzene	100−41−4	0.057	10
Ethyl cyanide/Propanenitrile	107−12−0	0.24	360
Ethyl ether	60−29−7	0.12	160
bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
Ethyl methacrylate	97−63−2	0.14	160
Ethylene oxide	75−21−8	0.12	NA
Famphur	52−85−7	0.017	15
Fluoranthene	206−44−0	0.068	3.4
Fluorene	86−73−7	0.059	3.4
~~Formetanate hydrochloride[6]~~	~~23422−53−9~~	~~0.056~~	~~1.4~~
Heptachlor	76−44−8	0.0012	0.066
Heptachlor epoxide	1024−57−3	0.016	0.066
1,2,3,4,6,7,8−Heptachlorodibenzo−p−dioxin(1,2,3,4,6,7,8−HpCDD)	35822−46−9	0.000035	0.0025
1,2,3,4,6,7,8−Heptachlorodibenzofuran (1,2,3,4,6,7,8−HpCDF)	67562−39−4	0.000035	0.0025
1,2,3,4,7,8,9−Heptachlorodibenzofuran (1,2,3,4,7,8,9−HpCDF)	55673−89−7	0.000035	0.0025
Hexachlorobenzene	118−74−1	0.055	10
Hexachlorobutadiene	87−68−3	0.055	5.6
Hexachlorocyclopentadiene	77−47−4	0.057	2.4
HxCDDs (All Hexachlorodibenzo−p−dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
Hexachloroethane	67−72−1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno (1,2,3−c,d) pyrene	193−39−5	0.0055	3.4
Iodomethane	74−88−4	0.19	65
Isobutyl alcohol	78−83−1	5.6	170
Isodrin	465−73−6	0.021	0.066
Isosafrole	120−58−1	0.081	2.6
Kepone	143−50−0	0.0011	0.13
Methacrylonitrile	126−98−7	0.24	84
Methanol	67−56−1	5.6	0.75 mg/L TCLP
Methapyrilene	91−80−5	0.081	1.5
~~Methiocarb[6]~~	~~2032−65−7~~	~~0.056~~	~~1.4~~
~~Methomyl[6]~~	~~16752−77−5~~	~~0.028~~	~~0.14~~
Methoxychlor	72−43−5	0.25	0.18
3−Methylcholanthrene	56−49−5	0.0055	15
4,4−Methylene bis(2−chloroaniline)	101−14−4	0.50	30
Methylene chloride	75−09−2	0.089	30
Methyl ethyl ketone	78−93−3	0.28	36
Methyl isobutyl ketone	108−10−1	0.14	33
Methyl methacrylate	80−62−6	0.14	160
Methyl methansulfonate	66−27−3	0.018	NA
Methyl parathion	298−00−0	0.014	4.6
~~Metolcarb[6]~~	~~1129−41−5~~	~~0.056~~	~~1.4~~
~~Mexacarbate[6]~~	~~315−18−4~~	~~0.056~~	~~1.4~~
~~Molinate[6]~~	~~2212−67−1~~	~~0.042~~	~~1.4~~
Naphthalene	91−20−3	0.059	5.6

2−Naphthylamine	91−59−8	0.52	NA
o−Nitroaniline	88−74−4	0.27	14
p−Nitroaniline	100−01−6	0.028	28
Nitrobenzene	98−95−3	0.068	14
5−Nitro−o−toluidine	99−55−8	0.32	28
o−Nitrophenol	88−75−5	0.028	13
p−Nitrophenol	100−02−7	0.12	29
N−Nitrosodiethylamine	55−18−5	0.40	28
N−Nitrosodimethylamine	62−75−9	0.40	2.3
N−Nitroso−di−n−butylamine	924−16−3	0.40	17
N−Nitrosomethylethylamine	10595−95−6	0.40	2.3
N−Nitrosomorpholine	59−89−2	0.40	2.3
N−Nitrosopiperidine	100−75−4	0.013	35
N−Nitrosopyrrolidine	930−55−2	0.013	35
1,2,3,4,6,7,8,9−Octachlorodibenzo−p−dioxin (OCDD)	3268−87−9	0.000063	0.005
1,2,3,4,6,7,8,9−Octachlorodibenzofuran (OCDF)	39001−02−0	0.000063	0.005
~~Oxamyl[6]~~	~~23135−22−0~~	~~0.056~~	~~0.28~~
Parathion	56−38−2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors)[8]	1336−36−3	0.10	10
~~Pebulate[6]~~	~~1114−71−2~~	~~0.042~~	~~1.4~~
Pentachlorobenzene	608−93−5	0.055	10
PeCDDs (All Pentachlorodibenzo−p−dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
Pentachloroethane	76−01−7	0.055	6.0
Pentachloronitrobenzene	82−68−8	0.055	4.8
Pentachlorophenol	87−86−5	0.089	7.4
Phenacetin	62−44−2	0.081	16
Phenanthrene	85−01−8	0.059	5.6
Phenol	108−95−2	0.039	6.2
1,3−Phenylenediamine	108−45−2	0.010	0.66
Phorate	298−02−2	0.021	4.6
Phthalic acid	100−21−0	0.055	28
Phthalic anhydride	85−44−9	0.055	28
~~Physostigmine[6]~~	~~57−47−6~~	~~0.056~~	~~1.4~~
~~Physostigmine salicylate[6]~~	~~57−64−7~~	~~0.056~~	~~1.4~~
~~Promecarb[6]~~	~~2631−37−0~~	~~0.056~~	~~1.4~~
Pronamide	23950−58−5	0.093	1.5
~~Propham[6]~~	~~122−42−9~~	~~0.056~~	~~1.4~~
~~Propoxur[6]~~	~~114−26−1~~	~~0.056~~	~~1.4~~
~~Prosulfocarb[6]~~	~~52888−80−9~~	~~0.042~~	~~1.4~~
Pyrene	129−00−0	0.067	8.2
Pyridine	110−86−1	0.014	16
Safrole	94−59−7	0.081	22
Silvex/2,4,5−TP	93−72−1	0.72	7.9
1,2,4,5−Tetrachlorobenzene	95−94−3	0.055	14
TCDDs (All Tetrachlorodibenzo−p−dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
1,1,1,2−Tetrachloroethane	630−20−6	0.057	6.0
1,1,2,2−Tetrachloroethane	79−34−5	0.057	6.0
Tetrachloroethylene	127−18−4	0.056	6.0
2,3,4,6−Tetrachlorophenol	58−90−2	0.030	7.4

~~Thiodicarb[6]~~	~~59669−26−0~~	~~0.019~~	~~1.4~~
~~Thiophanate−methyl[6]~~	~~23564−05−8~~	~~0.056~~	~~1.4~~
Toluene	108−88−3	0.080	10
Toxaphene	8001−35−2	0.0095	2.6
~~Triallate[6]~~	~~2303−17−5~~	~~0.042~~	~~1.4~~
Tribromomethane/Bromoform	75−25−2	0.63	15
1,2,4−Trichlorobenzene	120−82−1	0.055	19
1,1,1−Trichloroethane	71−55−6	0.054	6.0
1,1,2−Trichloroethane	79−00−5	0.054	6.0
Trichloroethylene	79−01−6	0.054	6.0
Trichloromonofluoromethane	75−69−4	0.020	30
2,4,5−Trichlorophenol	95−95−4	0.18	7.4
2,4,6−Trichlorophenol	88−06−2	0.035	7.4
2,4,5−Trichlorophenoxyacetic acid/2,4,5−T	93−76−5	0.72	7.9
1,2,3−Trichloropropane	96−18−4	0.85	30
1,1,2−Trichloro−1,2,2−trifluoroethane	76−13−1	0.057	30
~~Triethylamine[6]~~	~~121−44−8~~	~~0.081~~	~~1.5~~
tris−(2,3−Dibromopropyl) phosphate	126−72−7	0.11	0.10
~~Vernolate[6]~~	~~1929−77−7~~	~~0.042~~	~~1.4~~
Vinyl chloride	75−01−4	0.27	6.0
Xylenes−mixed isomers (sum of o−, m−, and p−xylene concentrations)	1330−20−7	0.32	30
Inorganic Constituents			
Antimony	7440−36−0	1.9	1.15 mg/L TCLP
Arsenic	7440−38−2	1.4	5.0 mg/L TCLP
Barium	7440−39−3	1.2	21 mg/L TCLP
Beryllium	7440−41−7	0.82	1.22 mg/L TCLP
Cadmium	7440−43−9	0.69	0.11 mg/L TCLP
Chromium (Total)	7440−47−3	2.77	0.60 mg/L TCLP
Cyanides (Total)[4]	57−12−5	1.2	590
Cyanides (Amenable)[4]	57−12−5	0.86	30
Fluoride[5]	16984−48−8	35	NA
Lead	7439−92−1	0.69	0.75 mg/L TCLP
Mercury − Nonwastewater from Retort	7439−97−6	NA	0.20 mg/L TCLP
Mercury − All Others	7439−97−6	0.15	0.025 mg/L TCLP
Nickel	7440−02−0	3.98	11. mg/L TCLP
Selenium[7]	7782−49−2	0.82	5.7 mg/L TCLP
Silver	7440−22−4	0.43	0.14 mg/L TCLP
Sulfide[5]	18496−25−8	14	NA
Thallium	7440−28−0	1.4	0.20 mg/L TCLP
Vanadium[5]	7440−62−2	4.3	1.6 mg/L TCLP
Zinc[5]	7440−66−6	2.61	4.3 mg/L TCLP

~~6 Between August 26, 1996, and March 4, 1998, these constituents are not "underlying hazardous constituents" as defined at s. NR 668.02 (9).~~

SECTION 207. NR 668.50 (1) (a) is amended to read:

NR 668.50 (1) (a) A generator stores the wastes in tanks, containers, or containment buildings on−site solely for the purpose of the accumulation of quantities of hazardous waste necessary to facilitate proper recovery, treatment or disposal, and a generator complies with the requirements in s. NR ~~662.034~~ 662.016 and 662.017 and chs. NR 664 and 665.

SECTION 208. NR 668.50 (1) (b) 1. is renumbered NR 668.50 (1) (b) 1. (intro.) and amended to read:

NR 668.50 (1) (b) 1. (intro.) Each container is clearly marked to identify its contents and ~~the date each period of accumulation begins~~ with all of the following:

SECTION 209. NR 668.50 (1) (b) 1. a., b., c., d., (d), and (e) are created to read:

NR 668.50 (1) (b) 1. a. The words "Hazardous Waste."

b. The applicable EPA hazardous waste number, EPA hazardous waste codes as specified in subchs. C and D of ch. NR 661; or use a nationally recognized electronic system, such as bar coding that identifies the EPA hazardous waste number.

c. An indication of the hazards of the contents. Examples to indicate a hazard include the applicable hazardous waste ignitable, corrosive, reactive, or toxic characteristic; hazard communication consistent with the department of transportation requirements under 49 CFR part 172 subpart E on labeling or subpart F on placarding; a hazard statement or pictogram consistent with the occupational safety and health administration hazard communication standard under 29 CFR 1910.1200; or a chemical hazard label consistent with the national fire protection association code 704.

d. The date each period of accumulation begins.

(d) A healthcare facility accumulates such wastes in containers on-site solely for the purpose of the accumulation of such quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal and the healthcare facility complies with the requirements specified in ss. NR 666.502 and 666.503.

(e) A reverse distributor accumulates such wastes in containers on-site solely for the purpose of the accumulation of such quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal and the reverse distributor complies with s. NR 666.510.

SECTION 210. NR 668 Appendix VI is amended to read:

Chapter NR 668

APPENDIX VI

RECOMMENDED TECHNOLOGIES TO ACHIEVE DEACTIVATION OF CHARACTERISTICS IN SECTION 668.42

The treatment standard for many characteristic wastes is stated in the s. NR 668.40 Table of Treatment Standards as "Deactivation and meet UTS." The department has determined that many technologies, when used alone or in combination, can achieve the deactivation portion of the treatment standard. Characteristic wastes that are not managed in a facility regulated by ch. 283, Stats., or in a CWA−equivalent facility, and that also contain underlying hazardous constituents (see s. NR 668.02 (9)) shall be treated not only by a "deactivating" technology to remove the characteristic, but also to achieve the universal treatment standards (UTS) for underlying hazardous constituents. The following appendix presents a partial list of technologies, utilizing the 5 letter technology codes established in s. NR 668.42, Table 1, that may be useful in meeting the treatment standard. Use of these specific technologies is not mandatory and does not preclude direct reuse, recovery or the use of other pretreatment technologies, provided deactivation is achieved and underlying hazardous constituents are treated to achieve the UTS.

Waste code/subcategory	Nonwastewaters	Wastewaters
D001 Ignitable Liquids based on ~~661.21~~ 661.0021 (1) (a)—Low TOC Nonwastewater Subcategory (containing 1% to <10% TOC)	RORGS INCIN WETOX CHOXD BIODG	n.a.
D001 Ignitable Liquids based on ~~661.21~~ 661.0021 (1) (a)—Ignitable Wastewater Subcategory (containing <1% TOC)	n.a.	RORGS INCIN WETOX CHOXD BIODG

D001 Compressed Gases based on ~~661.21~~ 661.0021 (1) (c)	RCGAS INCIN FSUBS ADGAS fb. INCIN ADGAS fb. (CHOXD; or CHRED)	n.a.
D001 Ignitable Reactives based on ~~661.21~~ 661.0021 (1) (b)	WTRRX CHOXD CHRED STABL INCIN	n.a.
D001 Ignitable Oxidizers based on ~~661.21~~ 661.0021 (1) (d)	CHRED INCIN	CHRED INCIN
D002 Acid Subcategory based on ~~661.22~~ 661.0022 (1) (a) with pH less than or equal to 2	RCORR NEUTR INCIN	NEUTR INCIN
D002 Alkaline Subcategory based on ~~661.22~~ 661.0022 (1) (a) with pH greater than or equal to 12.5	NEUTR INCIN	NEUTR INCIN
D002 Other Corrosives based on ~~661.22~~ 661.0022 (1) (b)	CHOXD CHRED INCIN STABL	CHOXD CHRED INCIN
D003 Water Reactives based on ~~661.23~~ 661.0023 (1) (b), (c), and (d)	INCIN WTRRX CHOXD CHRED	n.a.
D003 Reactive Sulfides based on ~~661.23~~ 661.0023 (1) (e)	CHOXD CHRED INCIN STABL	CHOXD CHRED BIODG INCIN
D003 Explosives based on ~~661.23~~ 661.0023 (1) (f), (g), and (h)	INCIN CHOXD CHRED	INCIN CHOXD CHRED

		BIODG CARBN
D003 Other Reactives based on ~~661.23~~ 661.0023 (1) (a)	INCIN CHOXD CHRED	INCIN CHOXD CHRED BIODG CARBN
K044 Wastewater treatment sludges from the manufacturing and processing of explosives	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN
K045 Spent carbon from the treatment of wastewaters containing explosives	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN
K047 Pink/red water from TNT operations	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN

Note: “n.a.” stands for “not applicable”; “fb.” stands for “followed by”.

SECTION 211. NR 670.001 (1) (c) is created to read:

NR 670.001 (1) (c) The hazardous waste license program has separate additional regulations that contain technical requirements. These separate regulations are used by the department to determine what requirements shall be placed in licenses if they are issued. These separate regulations are located under chs. NR 664, 666, 667, and 668.

SECTION 212. NR 670.001 (3) (intro.), (b) 1., 3., and 11. are amended to read:

NR 670.001 (3) SCOPE OF THE LICENSE REQUIREMENT. Section 291.25 (2), Stats., requires a license for the operation of a treatment, storage or disposal facility where any hazardous waste identified or listed in ch. NR 661 is managed. The terms “treatment," “storage,"

"disposal" and "hazardous waste" are defined in s. NR ~~670.002~~660.10. Owners and operators of hazardous waste management units shall have licenses during the active life (including the closure period) of the unit. Owners and operators of surface impoundments, landfills and waste pile units that received waste after July 26, 1982, or that certified closure (according to s. NR 665.0115) after January 26, 1983, shall have long−term care licenses, unless they demonstrate closure by removal or decontamination as provided under s. NR 670.001 (3) (e) and (f), or obtain an enforceable document in lieu of a long−term care license, as provided under par. (g). If a long− term care license is required, the license shall address applicable ch. NR 664 groundwater monitoring, unsaturated zone monitoring, corrective action and long−term care requirements of this chapter. The denial of a license for the active life of a hazardous waste management facility or unit does not affect the requirement to obtain a long−term care license under this section.

(b) 1. Generators who accumulate hazardous waste on−site in compliance with ~~s. NR 662.034 or 662.192~~ all of the conditions for exemption provided in chs. NR 662.014, 662.015, 662.016, and 662.017.

3. Persons who own or operate facilities solely for the treatment, storage or disposal of hazardous waste excluded from regulation under this chapter by s. NR ~~661.04~~ 661.0004 or 262.014, very small quantity generator exemption.

11. A generator who treats waste in containers or tanks, provided the requirements of s. NR ~~662.034, 662.192 or 662.220~~ 662.014, 662.016, and 662.017 are met.

SECTION 213. NR 670.001 (3) (b) 12. is created to read:

NR 670.001 (3) (b) 24. Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in s. NR 666.500. Reverse distributors are subject to regulation under ch. NR 666 subch. P for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

SECTION 214. NR 670.001 (3) (g) is amended to read:

NR 670.001 (3) (g) *Enforceable documents for long-term care.* At the discretion of the department or Regional Administrator, an owner or operator may obtain, in lieu of long-term care license, an enforceable document imposing requirements of s. NR 665.0121. "Enforceable

document" ~~means a~~ may include a special order, variance, license, or plan approval issued by the department or EPA.

SECTION 215. NR 670.002 (3) is amended to read:

NR 670.002 (3) "Corrective Action Management Unit" or "CAMU" means an area within a facility that is designated by the department under subch. S of ch. NR 664, for the purpose of implementing corrective action requirements s. NR 664.0101 and s. 291.37, Stats, or 42 USC 6928(h). A CAMU shall only be used for the management of remediation wastes pursuant to implementing corrective action requirements at the facility.

SECTION 216. NR 670.014 (4) (a) 6. is created to read:

NR 670.014 (4) (a) 6. For each unit, a description of corrective action as defined in s. 291.37 (1) (a), Stats., that was previously taken or is required to be taken, including a description of the corrective action, the anticipated time period for achieving compliance and the basis for its length, and a cost estimate for completion of corrective action that is consistent with the long-term care cost estimate requirements as specified in s. NR 664.014 (1).

SECTION 217. NR 670.019 (1) (b) and (d) are amended to read:

NR 670.019 (1) (b) Documentation that the waste is listed as a hazardous waste in subch. D of ch. NR 661, solely because it is reactive (hazard code R) for characteristics other than those listed in s. NR ~~661.23~~ 661.0023 (1) (d) and (e), and will not be burned when other hazardous wastes are present in the combustion zone.

(d) Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics listed in s. NR ~~661.23~~ 661.0023 (1) (a), (b), (c), (f), (g) or (h), and that it will not be burned when other hazardous wastes are present in the combustion zone.

SECTION 218. NR 670.042 (1) (a) 2., (b), (2) (b) (intro.), (3) (b) (intro.), (4) (b) 2., (5) (b) 3. and (6) (a) are amended to read:

NR 670.042 (1) (a) 2. The licensee shall send a notice of the modification to all persons on the facility mailing list~~, as specified in s. NR 670.410 (3) (a) 9.~~ and the appropriate units of state and local government, as ~~specified~~ identified in s. NR 670.410 (3) (a) ~~10.~~ 9. to 11. This

notification shall be made within 90 calendar days after the change is put into effect. For the class I modifications that require prior department approval, the notification shall be made within 90 calendar days after the department approves the request.

(b) Class 1 license modifications identified in ch. NR 670 Appendix I as Class 1-1 by a footnote may be made only with the prior written approval of the department.

(2) (b) The licensee shall send a notice of the modification request to all persons on the facility mailing ~~lists specified in s. NR 670.410 (3) (a) 9.~~ list and to the appropriate units of state and local government as ~~specified~~ identified in s. NR 670.410 (3) (a) ~~10.~~ 9. to 11., and shall publish this notice in a major local newspaper of general circulation. This notice shall be mailed and published within 7 days before or after the date of submission of the modification request, and the licensee shall provide to the department evidence of the mailing and publication. The notice shall include all of the following:

(3) (b) The licensee shall send a notice of the modification request to all persons on the facility mailing list ~~specified in s. NR 670.410 (3) (a) 9.~~ and to the appropriate units of state and local government as ~~specified~~ identified in s. NR 670.410 (3) (a) ~~10.~~ 9. to 11., and shall publish this notice in a major local newspaper of general circulation. This notice shall be mailed and published within 7 days before or after the date of submission of the modification request, and the licensee shall provide to the department evidence of the mailing and publication. The notice shall include all of the following:

(4) (b) 2. Class 2 modifications apply to changes that are necessary to enable a licensee to respond, in a timely manner, ~~to all of~~ such as the following:

(5) (b) 3. The licensee shall send a notice about the temporary authorization request to all persons on the facility mailing list ~~as specified in s. NR 670.410 (3) (a) 9.~~ and to appropriate units of state and local governments as ~~specified~~ identified in s. NR 670.410 (3) (a) ~~10.~~ 9. to 11. This notification shall be made within 7 days of submission of the authorization request.

(6) (a) The department shall notify persons on the facility mailing list and appropriate units of state and local government as identified in s. NR 670.410 (3) (a) 9. to 11. within 10 days of any decision under this section to grant or deny a class 2 or 3 license modification request.

SECTION 219. NR 670.062 (2) (f) (intro.) is amended to read:

NR 670.062 (2) (f) (intro.) The department shall send a notice to all persons on the facility mailing list ~~as set forth in s. NR 670.410 (3) (a) 9.~~ and to the appropriate units of state and local government as ~~set forth~~ identified in s. NR 670.410 (3) (a) ~~10.~~ 9. to 11. announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the department has issued the notice.

SECTION 220. NR 670.066 (4) (c) (intro.) is amended to read:

NR 670.066 (4) (c) (intro.) The department shall send a notice to all persons on the facility mailing list ~~as set forth in s. NR 670.410 (3) (a) 9.~~ and to the appropriate units of state and local government as ~~set forth~~ identified in s. NR 670.410 (3) (a) ~~10.~~ 9. to 11. announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the department has issued the notice.

SECTION 221. NR 670.320 (2) (b) 2. is amended to read:

NR 670.320 (2) (b) 2. Provide notice of the changes to the facility mailing list ~~and to state and local governments according to the procedures in s. NR 670.320 (3) (a).~~, local governments, and state agencies identified in NR 670.410 (3) (a) 9 to 11.

SECTION 222. NR 670.432 (1) and (2) (a) are amended to read:

NR 670.432 (1) APPLICABILITY. This section applies to all owners or operators submitting feasibility and plan of operation reports for an operating license for a hazardous waste management facility. This section does not apply to license modifications or to license applications submitted for the sole purpose of conducting long-term care activities or long-term care activities and corrective action at a facility. This section also does not apply to owners or operators submitting a written notice of intent to be covered by a standardized license (see subch. J) except for a new facility or a significant change that is also a facility expansion.

(2) (a) The department shall ~~provide public~~ send a notice to all persons on the facility mailing list ~~as set forth in s. NR 670.410 (3) (a) 9.,~~ and ~~notice~~ to appropriate units of state and local government as ~~set forth~~ identified in s. NR 670.410 (3) (a) ~~10.~~ 9. to 11. that a feasibility and plan of operation report has been submitted to the department and is available for review.

SECTION 223. NR 670 Appendix I is amended to read:

CHAPTER NR 670

APPENDIX I

CLASSIFICATION OF LICENSE MODIFICATION

Modifications	Class
A. *General License Provisions*	
1. Administrative and informational changes	1
2. Correction of typographical errors	1
3. Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls)	1
4. Changes in the frequency of or procedures for monitoring, reporting, sampling, or maintenance activities by the licensee:	
a. To provide for more frequent monitoring, reporting, sampling, or maintenance	1
b. Other changes	2
5. Schedule of compliance:	
a. Changes in interim compliance dates, with prior approval of the Department	~~1~~1-1
b. Extension of final compliance date	3
6. Changes in expiration date of license to allow earlier license termination, with prior approval of the department	~~1~~1-1
7. Changes in ownership or operational control of a facility, provided the procedures of s. NR 670.040 (2) are followed	~~1~~1-1
8. Changes to remove license conditions that are no longer applicable (*i.e.*, because the standards upon which they are based are no longer applicable to the facility).	~~1~~1-1
9. Changes to remove license conditions applicable to a unit excluded under the provisions of s. NR 661.0004.	1-1
10. Changes in the expiration date of a license issued to a facility at which all units are excluded under the provisions of s. NR 6261.0004.	1-1
B. *General Facility Standards*	
1. Changes to waste sampling or analysis methods:	
a. To conform with department guidance or regulations	1
b. To incorporate changes associated with F039 (multi-source leachate) sampling or analysis methods	1
c. To incorporate changes associated with underlying hazardous constituents in ignitable or corrosive wastes	~~1~~1-1
d. Other changes	2
2. Changes to analytical quality assurance/control plan:	

a. To conform with department guidance or rules	1
b. Other changes	2
3. Changes in procedures for maintaining the operating record	1
4. Changes in frequency or content of inspection schedules	2
5. Changes in the training plan:	
a. That affect the type or decrease the amount of training given to employees	2
b. Other changes	1
6. Contingency plan:	
a. Changes in emergency procedures (*i.e.*, spill or release response procedures)	2
b. Replacement with functionally equivalent equipment, upgrade, or relocate emergency equipment listed	1
c. Removal of equipment from emergency equipment list	2
d. Changes in name, address, or phone number of coordinators or other persons or agencies identified in the plan	1
7. Construction quality assurance plan:	
a. Changes that the CQA officer certifies in the operating record will provide equivalent or better certainty that the unit components meet the design specifications	1
b. Other changes	2
Note: When a license modification (such as introduction of a new unit) requires a change in facility plans or other general facility standards, that change shall be reviewed under the same procedures as the license modification.	
C. *Ground-Water Protection*	
1. Changes to wells:	
a. Changes in the number, location, depth, or design of upgradient or downgradient wells of licensed ground-water monitoring system	2
b. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well	1
2. Changes in ground-water sampling or analysis procedures or monitoring schedule, with prior approval of the Department	~~1~~1-1
3. Changes in statistical procedure for determining whether a statistically significant change in ground-water quality between upgradient and downgradient wells has occurred, with prior approval of the Department	~~1~~1-1
4. Changes in point of compliance	2
5. Changes in indicator parameters, hazardous constituents, or concentration limits (including ACLs):	
a. As specified in the groundwater protection standard	3
b. As specified in the detection monitoring program	2
6. Changes to a detection monitoring program as required by s. NR 664.0098 (8), unless otherwise specified in this appendix	2

7. Compliance monitoring program:	
a. Addition of compliance monitoring program as required by ss. NR 664.0098 (7) (d) and 664.0099	3
b. Changes to a compliance monitoring program as required by s. NR 664.0099 (10), unless otherwise specified in this appendix	2
8. Corrective action program:	
a. Addition of a corrective action program as required by ss. NR 664.0099 (8) (b) and 664.0100	3
b. Changes to a corrective action program as required by s. NR 664.0100 (8), unless otherwise specified in this appendix	2
D. *Closure*	
1. Changes to the closure plan:	
a. Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the Department	~~1~~1-1
b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period, with prior approval of the Department	~~1~~1-1
c. Changes in the expected year of final closure, where other license conditions are not changed, with prior approval of the Department	~~1~~1-1
d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the Department	~~1~~1-1
e. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this appendix	2
f. Extension of the closure period to allow a landfill, surface impoundment or land treatment unit to receive non-hazardous wastes after final receipt of hazardous wastes under s. NR 664.0113 (4) and (5)	2
2. Creation of a new landfill unit as part of closure	3
3. Addition of the following new units to be used temporarily for closure activities:	
a. Surface impoundments	3
b. Incinerators	3
c. Waste piles that do not comply with s. NR 664.0250 (3)	3
d. Waste piles that comply with s. NR 664.0250 (3)	2
e. Tanks or containers (other than specified below)	2
f. Tanks used for neutralization, dewatering, phase separation, or component separation, with prior approval of the department	~~1~~1-1
g. Staging piles	2
E. ~~*Long–term care*~~ *Post-closure*	
1. Changes in name, address, or phone number of contact in ~~long–term care~~ post-closure plan	1
2. Extension of ~~long–term care~~ post-closure care period	2
3. Reduction in the ~~long–term care~~ post-closure care period	3

4. Changes to the expected year of final closure, where other license conditions are not changed	1
5. Changes in ~~long−term care~~ post-closure plan necessitated by events occurring during the active life of the facility, including partial and final closure	2
F. *Containers*	
1. Modification or addition of container units that increases the facility's container storage capacity	3
2. Treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards with prior approval of the department. This modification may also involve addition of new waste codes or narrative descriptions of wastes. It is not applicable to dioxin−containing wastes (F020, 021, 022, 023, 026, 027 and 028	~~1~~1-1
3. Modification of container units:	
a. Modification of a container unit without increasing the capacity of the unit	2
b. Addition of a roof to a container unit without alteration of the containment system	1
4. Storage of different wastes in containers, except as provided in (F) (5):	
a. That require additional or different management practices from those authorized in the license	3
b. That do not require additional or different management practices from those authorized in the license	2
Note: See s. NR 670.042 (7) for modification procedures to be used for the management of newly listed or identified wastes.	
5. Storage or treatment of different wastes in containers:	
a. That require addition of units or change in treatment process or management standards, if the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards. This modification is not applicable to dioxin−containing wastes (F020, 021, 022, 023, 026, 027, and 028)	~~1~~1-1
b. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	~~1~~1-1
G. *Tanks*	
1. Modification or addition of tank units or secondary containment systems that increase the facility's tank capacity	3
2. Addition of a new tank that will operate for more than 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation	2
3. After prior approval of the department, addition of a new tank that will operate for up to 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation	~~1~~1-1
4. Modification or addition of tank units or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards with prior approval of the department. This modification may also involve addition of new waste codes. It is not applicable to dioxin−containing wastes (F020, 021, 022, 023, 026, 027, and 028)	~~1~~1-1

5. Modification of a tank unit or secondary containment system without increasing the capacity of the unit	2
6. Replacement of a tank with a tank that meets the same design standards and has a capacity within ±10% of the replaced tank provided	1
—The capacity difference is no more than 1500 gallons,	
—The facility's licensed tank capacity is not increased, and	
—The replacement tank meets the same conditions in the license.	
7. Modification of a tank management practice	2
8. Management of different wastes in tanks:	
a. That require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process from that authorized in the license, except as provided in (G) (8) (c) ~~below~~	3
b. That do not require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process than authorized in the license, except as provided in (G) (8) (d)	2
c. That require addition of units or change in treatment processes or management standards, if the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards. The modification is not applicable to dioxin−containing wastes (F020, 021, 022, 023, 026, 027 and 028)	~~1~~1-1
d. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	1
Note: See s. NR 670.042 (7) for modification procedures to be used for the management of newly listed or identified wastes.	
H. *Surface Impoundments*	
1. Modification or addition of surface impoundment units that result in increasing the facility's surface impoundment storage or treatment capacity	3
2. Replacement of a surface impoundment unit	3
3. Modification of a surface impoundment unit without increasing the facility's surface impoundment storage or treatment capacity and without modifying the unit's liner, leak detection system, or leachate collection system	2
4. Modification of a surface impoundment management practice	2
5. Treatment, storage, or disposal of different wastes in surface impoundments:	
a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the license	3
b. That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the license	2
c. That are wastes restricted from land disposal that meet the applicable treatment standards. This modification is not applicable to dioxin−containing wastes (F020, 021, 022, 023, 026, 027 and 028)	1

d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a unit that meets the minimum technological requirements stated in 40 CFR 268.5 (h) (2), and provided further that the surface impoundment has previously received wastes of the same type (for example, incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	1
6. Modifications of unconstructed units to comply with ss. NR 664.0221 (3), 664.0222, 664.0223 and 664.0226 (4)	~~1~~1-1
7. Changes in response action plan:	
a. Increase in action leakage rate	3
b. Change in a specific response reducing its frequency or effectiveness	3
c. Other changes	2
Note: See s. NR 670.042 (7) for modification procedures to be used for the management of newly listed or identified wastes	
I. *Enclosed Waste Piles.* For all waste piles except those complying with s. NR 664.0250 (3), modifications are treated the same as for a landfill. The following modifications are applicable only to waste piles complying with s. NR 664.0250 (3).	
1. Modification or addition of waste pile units that increase the facility's waste pile storage or treatment capacity	3
2. Modification of waste pile unit without increasing the capacity of the unit	2
3. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the license	1
4. Modification of a waste pile management practice	2
5. Storage or treatment of different wastes in waste piles:	
a. That require additional or different management practices or different design of the unit	3
b. That do not require additional or different management practices or different design of the unit	2
6. Conversion of an enclosed waste pile to a containment building unit	2
Note: See s. NR 670.042 (7) for modification procedures to be used for the management of newly listed or identified wastes.	
J. *Landfills and Unenclosed Waste Piles*	
1. Modification or addition of landfill units that result in increasing the facility's disposal capacity	3
2. Replacement of a landfill	3
3. Addition or modification of a liner, leachate collection system, leachate detection system, run-off control, or final cover system	3
4. Modification of a landfill unit without changing a liner, leachate collection system, leachate detection system, run-off control, or final cover system	2
5. Modification of a landfill management practice	2
6. Landfill different wastes:	
a. That require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system	3

b. That do not require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system	2
c. That are wastes restricted from land disposal that meet the applicable treatment standards and if the landfill unit meets the minimum technological requirements stated in 40 CFR 268.5(h)(2). This modification is not applicable to dioxin−containing wastes (F020, 021, 022, 023, 026, 027 and 028)	1
d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a landfill unit that meets the minimum technological requirements stated in §268.5(h)(2), and provided further that the landfill has previously received wastes of the same type (for example, incinerator ash). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	1
7. Modifications of unconstructed units to comply with ss. NR 664.0251 (3), 664.0252, 664.0253, 664.0254 (3), 664.0301 (3), 664.0302, 664.0303(3) and 664.0304	~~1~~1-1
8. Changes in response action plan:	
a. Increase in action leakage rate	3
b. Change in a specific response reducing its frequency or effectiveness	3
c. Other changes	2
Note: See s. NR 670.042 (7) for modification procedures to be used for the management of newly listed or identified wastes.	
L. Incinerators, Boilers, and Industrial Furnaces:	
1. Changes to increase any of the following limits authorized in the license: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit or an ash feed rate limit. The department will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
2. Modification of an incinerator, boiler, or industrial furnace unit by changing the internal size or geometry of the primary or secondary combustion units, by adding a primary or secondary combustion unit, by substantially changing the design of any component used to remove HCl/Cl_2, metals, or particulate from the combustion gases, or by changing other features of the incinerator, boiler, or industrial furnace that could affect its capability to meet the regulatory performance standards. The department will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
3. Modification of an incinerator, boiler, or industrial furnace unit in a manner that would not likely affect the capability of the unit to meet the regulatory performance standards but which would change the operating conditions or monitoring requirements specified in the license. The department may require a new trial burn to demonstrate compliance with the regulatory performance standards	2
4. Operating requirements:	
a. Modification of the limits specified in the license for minimum or maximum combustion gas temperature, minimum combustion gas residence time, oxygen concentration in the secondary combustion chamber, flue gas carbon monoxide and hydrocarbon concentration, maximum temperature at the inlet to the particulate matter emission control system, or operating parameters for the air pollution control system. The department will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3

b. Modification of any stack gas emission limits specified in the license, or modification of any conditions in the license concerning emergency shutdown or automatic waste feed cutoff procedures or controls	3
c. Modification of any other operating condition or any inspection or recordkeeping requirement specified in the license	2
5. Burning different wastes:	
a. If the waste contains a POHC that is more difficult to burn than authorized by the license or if burning of the waste requires compliance with different regulatory performance standards than specified in the license. The department will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
b. If the waste does not contain a POHC that is more difficult to burn than authorized by the license and if burning of the waste does not require compliance with different regulatory performance standards than specified in the license	2
Note: See s. NR 670.042 (7) for modification procedures to be used for the management of newly listed or identified wastes.	
6. Shakedown and trial burn:	
a. Modification of the trial burn plan or any of the license conditions applicable during the shakedown period for determining operational readiness after construction, the trial burn period, or the period immediately following the trial burn	2
b. Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operational readiness after construction, with the prior approval of the Department	~~1~~1-1
c. Changes in the operating requirements set in the license for conducting a trial burn, provided the change is minor and has received the prior approval of the Department	~~1~~1-1
d. Changes in the ranges of the operating requirements set in the license to reflect the results of the trial burn, provided the change is minor and has received the prior approval of the department	~~1~~1-1
7. Substitution of an alternative type of nonhazardous waste fuel that is not specified in the license	1
8. Technology changes needed to meet standards under 40 CFR part 63 (Subpart EEE—National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors), provided the procedures of §270.42(j) are followed.	~~1~~1-1
9. Changes to RCRA license provisions needed to support transition to 40 CFR part 63 (Subpart EEE—National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors), provided the procedures of s. NR 670.042 (11) are followed.	
M. Containment Buildings.	
1. Modification or addition of a containment building unit or secondary containment system that increases the capacity of the unit.	3
2. Modification of a containment building unit or secondary containment system without increasing the capacity of the unit	2
3. Replacement of a containment building with a containment building that meets the same design standards provided:	
a. The unit capacity is not increased	1
b. The replacement containment building meets the same conditions in the license	1

4. Modification of a containment building management practice	2
5. Storage or treatment of different wastes in containment buildings:	
a. That require additional or different management practices	3
b. That do not require additional or different management practices	2
N. Corrective Action:	
1. Approval of a corrective action management unit pursuant to s. NR 664.0552	3
2. Approval of a temporary unit or time extension for a temporary unit pursuant to s. NR 664.0553	2
3. Approval of a staging pile or staging pile operating term extension pursuant to s. NR 664.0554	2
O. Burden Reduction	
2. Development of one contingency plan based on Integrated Contingency Plan Guidance pursuant to s. NR 664.0052 (2)	1
3. Changes to recordkeeping and reporting requirements pursuant to: ss. NR 664.0056 (9), 664.0343 (1) (b), 664.1061 (2) (a), (4), 664.1062 (1) (b), 664.0196 (6), 664.0100 (7), and 664.0113 (5) (e)	1
4. Changes to inspection frequency for tank systems pursuant to s. NR 664.0195 (2)	1
5. Changes to detection and compliance monitoring program pursuant to ss. NR 664.0098 (4), (7) (b) and (c), 664.0099 (6) and (7)	1

~~1~~1-1 Class 1 modifications requiring prior Department approval.

SECTION 224. NR 670 Appendix II is amended to read:

Chapter NR 670

APPENDIX II

HAZARDOUS WASTE FEE TABLE[1]

	Tanks	Waste Piles	Incinerators & Boilers and Industrial Furnaces	Containers, Containment Buildings, Drip Pads, & Miscellaneous Units	Landfills & Surface Impoundments
Document Review Fees[2]					
Review of Interim License Application (Part A)	$800	$800	$800	$800	$1,600
Review of Initial Site Report					$3,500
Review of Operating License Application (Part A and Feasibility and Plan of Operation Report)	$6,400	$6,400	$19,500	$4,000	$100,000
Review of Closure Plan for Unlicensed Facilities	$2,400	$3,200	$3,200	$1,600	$23,400
Review of Class 1 Modification[3]	$400	$400	$400	$400	$800
Review of Class 2 Modification	$1,600	$2,400	$3,200	$1,600	$4,000
Review of Class 3 Modification	$6,400	$6,400	$19,500	$4,000	$100,000
Review of Corrective Action Plan[4]	$1,600	$1,600	$1,600	$1,600	$7,800
Review of Remediation Variance Request	$1,600	$1,600	$4,000	$1,600	$4,000

Review of Construction Quality Assurance (CQA) Documentation[5]		$1,200			$4,000
Review of Special License for Boilers and Industrial Furnaces Application[6]			$4,000		
Review of Research, Development and Demonstration License Application[6]	$4,000	$4,000	$4,000	$4,000	$4,000[7]
License Fees[8]					
Interim License[9]	$6,400	$9,600	$12,500	$6,400	$80,000
Annual Renewal of Operating License[10]	$3,200	$4,800	$6,400	$3,200	$40,000
Long Term Care License[11]					$80,000
Other Fees					
Construction Quality Assurance (CQA) Inspection		$65/hour			$65/hour
Manifest Fee	~~$6 per Manifest; Facilities will be billed annually based on the number of manifests~~				
Annual Hazardous Waste Transportation License[10]	$400				

SECTION 225. NR 673.03 (2) (a) (Note), (4) (a) 1. and 2. are amended to read:

NR 673.03 (2) (a) **Note:** Section NR 662.070 addresses pesticides disposed of on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label, provided the container is triple rinsed in accordance with s. NR ~~661.07~~ 661.0007 (2) (c).

(4) (a) 1. Has not made a decision to discard (e.g., burn for energy recovery) the pesticide. Until such a decision is made, the pesticide does not meet the definition of "solid waste" under s. NR ~~661.02~~ 661.0002. Thus, the pesticide is not a hazardous waste and is not subject to hazardous waste requirements, including this chapter. This pesticide remains subject to the requirements of 7 USC 136 to 136y.

2. Has made a decision to use a management option that, under s. NR ~~661.02~~ 661.0002, does not cause the pesticide to be a solid waste (i.e., the selected option is use (other than use constituting disposal) or reuse (other than burning for energy recovery), or reclamation). Such a pesticide is not a solid waste and therefore is not a hazardous waste, and is not subject to the hazardous waste requirements including this chapter. This pesticide, including a recalled pesticide that is exported to a foreign destination for use or reuse, remains subject to the requirements of 7 USC 136 to 136y.

SECTION 226. NR 673.05 (2) (c) is created to read:

NR 673.05 (2) (c) Lamps that are intentionally broken or crushed by the generator as defined in s. NR 673.09 (4).

SECTION 227. NR 673.08 (1) (a) and (b) are amended to read:

NR 673.08 (1) (a) Household wastes that are exempt under s. NR ~~661.04~~ 661.0004 (2) (a) and are also of the same type as the universal wastes defined at s. NR 673.09.

(b) Very small quantity generator wastes that are exempt under s. NR ~~662.220~~ 662.014 and are also of the same type as the universal wastes defined at s. NR 673.09.

SECTION 228. NR 673.13 (3) (b) 3. and 4. are amended to read:

NR 673.13 (3) (b) 3. Ensures that a mercury clean−up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules, from the containment device to a container that meets the requirements of ~~s. NR 662.034 or 662.192.~~ ss. NR 662.015 and 662.016.

4. Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of ~~s. NR 662.034 or 662.192.~~ ss. NR 662.015 and 662.016.

SECTION 229. NR 673.20 (intro.) is renumbered to NR 673.20 and amended to read:

NR 673.20 Exports. A small quantity handler of universal waste who sends universal waste to a foreign destination ~~other than to those OECD countries specified in s. NR 662.058 (1) (a) (in which case the handler~~ is subject to the requirements of subch. H of ch. NR 662~~) shall do all of the following:~~.

SECTION 230. NR 673.20 (1) to (3) are repealed.

SECTION 231. NR 673.33 (3) (title) and (3) (b) 4. are amended to read:

NR 673.33 (3) (title) MERCURY−CONTAINING EQUIPMENT.~~.~~

(b) 4. Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of ~~s. NR 662.034 or 662.192~~ ss. NR 662.015 and 662.017.

SECTION 232. NR 673.39 (1) (intro.) and (2) (intro.) are amended to read:

NR 673.39 (1) (intro.) RECEIPT OF SHIPMENTS. A large quantity handler of universal waste shall keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste received shall include all of the following information:

(2) (intro.) SHIPMENTS OFF−SITE. A large quantity handler of universal waste shall keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste sent shall include all of the following information:

SECTION 233. NR 673.40 (intro.) is renumbered to NR 673.40 and amended to read:

NR 673.40 **Exports**. A large quantity handler of universal waste who sends universal waste to a foreign destination ~~other than to those OECD countries specified in s. NR 662.058 (1) (a)~~ (in which case the handler is subject to the requirements of subch. H of ch. NR 662) shall do all of the following: is subject to the requirements of subch. H of ch. NR 662.

SECTION 234. NR 673.40 (1) to (3) are repealed.

SECTION 235. NR 673.56 (intro.) is renumbered to NR 673.56 and amended to read:

NR 673.56 **Exports**. A universal waste transporter transporting a shipment of universal waste to a foreign destination ~~other than to those OECD countries specified in s. NR 662.058 (1) (a) (in which case the transporter is subject to the requirements of subch. H of ch. NR 662) may not accept a shipment if the transporter knows the shipment does not conform to the EPA acknowledgment of consent. In addition the transporter shall ensure that all of the following conditions are met:~~ is subject to the requirements of subch. H of ch. NR 662.

SECTION 236: NR 673.56 (1) and (2) are repealed.

SECTION 237. NR 673.60 (2) is amended to read:

NR 673.60 (2) The owner or operator of a destination facility that recycles a particular universal waste without storing that universal waste before it is recycled shall comply with s. NR ~~661.06~~ 661.0006 (3) (b).

SECTION 238. NR 673.62 (1) is amended to read:

NR 673.62 (1) RECEIPT OF SHIPMENTS. The owner or operator of a destination facility shall keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste received shall include all of the following information:

SECTION 239. NR 673.70 (1) and (2) are amended to read:

NR 673.70 (1) A universal waste transporter is subject to the universal waste transporter requirements of subch. D.

(2) A universal waste handler is subject to the small or large quantity handler of universal waste requirements of subch. B or C, as applicable.

SECTION 240. NR 673.70 (4) is repealed.

SECTION 241. NR 673.80 (1) is amended to read:

NR 673.80 (1) ~~Any~~Except as provided in par. 4, any person seeking to add a hazardous waste or a category of hazardous waste to this chapter may petition for a rule amendment under this subchapter and ss. NR 660.20 and 660.23.

SECTION 242. NR 673.80 (4) is created to read:

NR 673.80 (4) Hazardous waste pharmaceuticals are regulated under subch. P of ch. NR 666, and may not be added as a category of hazardous waste for management under this chapter.

SECTION 243. NR 679.01 (intro.) is amended to read:

NR 679.01 Definitions. Terms that are defined in s. NR ~~661.01~~ 661.0001 (3) and s. ATCP 93.050 have the same meanings when used in this chapter. In this chapter:

SECTION 244. NR 679.10 (2) (b) 3., (c), and (5) (a) 2. are amended to read:

NR 679.10 (2) (b) 3. Used oil under this chapter, if the mixture is of used oil and a waste which is hazardous solely because it exhibits the ignitability characteristic (e.g., ignitable−only mineral spirits), or is listed in subch. D of ch. NR 661 solely because it exhibits the ignitability characteristic, if the resultant mixture does not exhibit the ignitability characteristic identified in s. NR ~~661.21~~ 661.0021.

(c) Very small quantity generator hazardous waste. Mixtures of used oil and very small quantity generator hazardous waste regulated under s. NR ~~662.220~~ 662.014 are regulated as used oil under this chapter.

(5) (a) 2. Not solid wastes and are thus not subject to the hazardous waste rules of chs. NR 660 to 670 as provided in s. NR ~~661.03~~ 661.0003 (3) (b) 1.

SECTION 245. NR 679.11 Table 1 table note 2 is amended to read:

NR 679.11

Table 1

2 Used oil containing greater than ~~or equal to~~ 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under s. NR 679.10 (2) (a). This used oil is regulated under subch. H of ch. NR 666 rather than this chapter when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

SECTION 246. NR 679.40 (3) is amended to read:

NR 679.40 (3) TRUCKS USED TO TRANSPORT HAZARDOUS WASTE. Unless trucks previously used to transport hazardous waste are emptied as described in s. NR ~~661.07~~ 661.0007 prior to transporting used oil, the used oil is considered to have been mixed with the hazardous waste and shall be managed as hazardous waste unless, under s. NR 679.10 (2), the hazardous waste and used oil mixture is determined not to be hazardous waste.

SECTION 247. EFFECTIVE DATE. This rule takes effect on the first day of the month following publication in the Wisconsin Administrative Register as provided in s. 227.22 (2) (intro.), Stats.

SECTION 248. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on [DATE].

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN

DEPARTMENT OF NATURAL RESOURCES

BY _____

Preston D. Cole, Secretary

(SEAL)