

Chapter NR 640

CONTAINER STANDARDS

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NR 640.01 Purpose. The purpose of this chapter is to ensure that efficient and environmentally acceptable hazardous waste treatment and storage operations are practiced and to outline the requirements for feasibility and plan of operation reports and for closure plans as they apply to hazardous waste container facilities.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.02 Applicability. Except as otherwise provided, this chapter applies to owners and operators of facilities that store or treat hazardous waste in containers. This chapter does not apply to solid waste facilities that store or treat only:

- (1) Non-hazardous solid waste,
- (2) Metallic mining wastes resulting from a mining operation as defined in s. 144.81 (5), Stats.,
- (3) Polychlorinated biphenyls (PCBs), except where portions of this chapter are referenced in ch. NR 157, or
- (4) A combination of wastes described in subs. (1) to (3).

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91; correction made under s. 13.93 (2m) (b) 1, Stats., Register, August, 1992, No. 440.

NR 640.03 Definitions. The definitions in s. NR 600.03 apply to this chapter.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.04 Exemptions. The requirements of this chapter do not apply to the following, except to the extent they are specifically included:

- (1) A generator accumulating hazardous waste on-site in containers in compliance with s. NR 615.05 (4), except as provided in s. NR 600.07, discharge of hazardous waste.
- (2) The owner or operator of a totally enclosed treatment facility.
- (3) A licensed transporter accumulating manifested shipments of waste at a transfer facility in compliance with s. NR 620.14, transfer facilities.

(4) A small quantity generator accumulating waste on-site in containers in compliance with ch. NR 610, small quantity generator standards.

(5) The owner or operator of a solid waste disposal facility licensed under chs. NR 500 to 522, if the only hazardous waste the facility stores is excluded from regulation under this chapter by s. NR 610.05 (1) and the facility has been approved under s. NR 506.15 to accept small quantities of hazardous waste.

(6) The owners or operators of facilities used for the storage or treatment of metallic mining wastes resulting from a mining operation as defined in s. 144.81 (5), Stats.

Note: Metallic mining wastes are regulated under ch. NR 182.

(7) The owner or operator of a facility operating under an interim license, except to the extent that the requirements are listed in ss. NR 680.21 (4) or (5) or 680.22.

(8) The owner or operator of a wastewater treatment unit, if the owner or operator complies with the requirements specified in s. NR 630.04 (1).

(9) A person who stores waste lead-acid batteries that are destined for recycling and who complies with s. NR 625.12, storage of waste lead-acid batteries.

(10) The owner or operator of an elementary neutralization unit if the owner or operator complies with s. NR 630.04 (7).

(11) A generator who combines absorbent material with a waste generated on-site in a container for the purpose of eliminating free liquids, if the generator complies with s. NR 615.05 (6).

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.05 General. Except as otherwise provided in s. NR 640.04 (1) to (11), no person may maintain or operate a hazardous waste storage or treatment facility unless the person has obtained an interim license, operating license, variance or waiver from the department, in accordance with the requirements of ch. NR 680.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.06 Feasibility and plan of operation report. (1) **GENERAL.** Unless specifically exempted in s. NR 640.04 (1) to (11), no person shall establish, construct or expand a hazardous waste container facility or be issued an initial operating license under s. NR 680.34 without first obtaining written approval of a feasibility and plan of operation report from the department. The purpose of the feasibility and plan of operation report is to determine whether the site has potential for use as a hazardous waste container storage or treatment facility and to identify and address any operating conditions which are necessary for the proper operation of the facility. Favorable feasibility determination and plan approval under this section does not guarantee final licensure. The feasibility and plan of operation report shall be submitted in accordance with the requirements of s. 144.44, Stats., and ss. NR 680.05 to 680.09. Additional report requirements for storage and treatment facilities are included in subs. (2) and (3). Feasibility and plan of operation report requirements for small storage facilities that meet the criteria of s. NR 640.07 (1) are specified in s. NR 640.07 (3). The feasibility and plan of operation report shall also contain the following information:

Register, March, 1993, No. 447

(a) *Narrative*. A narrative describing:

1. The legal description of the site.
2. The present ownership of the site.
3. The proposed site size and boundaries and present land use of the site and the area within $\frac{1}{2}$ mile of the site. Particular note shall be made of parks, hospitals, nursing homes and areas of archaeological and historical significance.
4. The area served, including population and major industries.
5. A complete material balance for the facility, specifying the amounts and characteristics of hazardous waste to be received and the amounts and characteristics of products and wastes which will be generated by the facility.
6. The types of vehicles and access routes used to transport hazardous waste into and out of the site or facility, an analysis of estimated traffic flow patterns on access routes and within the site or facility, and an analysis of increased quantities of traffic on access routes into and out of the site or facility. Present or proposed access roads and weight restrictions shall be included.
7. The estimated quantities and characteristics of wastes resulting from facility operations and methods of treatment or disposal.
8. The person responsible for plant construction and operation.
9. The quality and quantity of air discharge expected from plant operation.
10. The appurtenances and procedures for the storage of hazardous waste beyond the end of the processing day, for the control of dust, odors, fire, windblown materials and potential explosions and for the handling of hazardous waste in the case of major treatment facility breakdown.
11. The names and locations of all hazardous and solid waste disposal sites and facilities at which hazardous and solid wastes from the treatment facility shall be disposed.
12. The overall site or facility layout including conceptual building design, sizing of receiving area, methods of processing, and sizing of major process equipment or process areas.
13. A timetable for site or facility construction, start up and operation.
14. The operating schedule.
15. The provisions for protection of groundwater and surface waters during site or facility construction and operation.
16. A conceptual design of equipment indicating its capacity and dimensions.
17. The potential for the site to meet the location requirements in s. NR 630.18.

(b) *Regional information*. A discussion of the regional site setting to provide a basis for comparison and interpretation to site specific infor-

mation obtained through field investigations and for analyzing siting and environmental considerations. The discussion shall be limited to information available from publications, although some field verification and updating may be desirable. Supplement discussions by maps and crosssections. The narrative shall address the following items:

1. Topography, including predominant topographic features.
2. Hydrology, including surface water drainage patterns and significant hydrologic features such as surface waters, springs, drainage basins and divides and wetlands.
3. Geology, including the nature and distribution of bedrock and unconsolidated deposits.
4. Hydrogeology, including depth to groundwater, groundwater flow direction, recharge and discharge areas, groundwater divides, aquifers and the identification of the aquifers used by public and private wells beneath the facility property and within $\frac{1}{2}$ mile of the proposed site, unless a demonstration is made indicating why the information is not needed.
5. Ground and surface water quality as described in available regional literature.
6. Climatology.
7. Identification of adjacent landowners.
8. Zoning.
9. Present land use with particular emphasis on known recreational, historic or archaeological areas.
10. A plat map indicating property boundaries and adjacent landowners.

(c) *An existing and proposed site condition topographic plan.* This plan shall be a detailed topographic survey of the facility area and all area within a distance of 1500 feet of the facility. The minimum scale of this plan shall be one inch = 200 feet with a maximum 2-foot contour interval. The contour interval shall be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operating unit of the facility. All elevations shall be related to USGS data. More than one plan sheet shall be prepared to show the required information if one sheet will be too detailed to be clear. The plan or plans shall clearly show:

1. 100-year floodplain area.
2. Surface waters, including wetlands and intermittent streams.
3. Homes, buildings, man-made features and utility lines.
4. Surrounding land uses, such as residential, commercial, agricultural and recreational.
5. Property boundaries, facility or waste management boundaries, including any previous solid or hazardous waste disposal area.
6. Access control, such as fences and gates.
7. Water supply wells and any other wells, such as irrigation wells.

8. Well boring locations and observation well locations.
9. A wind rose, which shows prevailing wind speed and direction.
10. Buildings, treatment, storage or disposal operations or other structures such as recreation areas, runoff control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities.
11. Barriers for drainage or flood control.

12. Location of operational units within the facility where hazardous waste is or will be treated or stored, including equipment cleanup areas.

(d) *Maps and plans.* The narrative in par. (a) shall be supplemented by the following maps or plans:

1. USGS quadrangle map. This shall be a 7½ minute, topographic map, if it is available. The radius of coverage shall be sufficient to show sources of waste for a minimum of 3 miles. If impractical to show the site or facility locations relative to the source of waste, a separate location map displaying this information shall be provided.

2. Plat map. This shall indicate property boundaries and zoning within ½ mile of the proposed facility and anticipated traffic routes within 2 miles of the site or facility.

3. Existing site conditions map. The extent of coverage shall be the entire site and the area within ½ mile of the site boundaries. The minimum scale shall be one inch = 200 feet. Map details shall include the proposed site boundary, property lines, easements and rights-of-way; buildings, foundations, roads, utilities and other structures; topography, for the site only unless the map is needed to define drainage patterns around facility; wooded areas; location of soil borings and test pits; features of historical and archaeological significance; and other physical site features as appropriate.

4. Proposed facility plan. This plan shall include proposed site or facility access roads and traffic patterns, buildings, scales, utility lines, drainage diversion, screening, means of access control, final topography, areas to be cleared of vegetation and other design features. The extent of coverage and scale shall be the same as that for the existing site conditions map.

(e) *Hazardous constituents.* If the presence of hazardous constituents has been detected in the groundwater at the point of standards application at the time of feasibility and plan of operation report submittal, the owner or operator shall submit sufficient information, supporting data and analyses to establish a compliance monitoring program which meets the requirements of ss. NR 635.05 to 635.13. Except as provided in s. NR 635.13 (9), the owner or operator shall also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of s. NR 635.14, unless the owner or operator obtains written authorization in advance from the department to submit a proposed license schedule for submittal of the plan. To demonstrate compliance with s. NR 635.13, the owner or operator shall submit the following items:

1. A description of the wastes previously handled at the facility;

2. A characterization of the contaminated groundwater, including concentrations of hazardous constituents;

3. A list of hazardous constituents for which compliance monitoring shall be undertaken in accordance with ss. NR 635.09 and 635.11;

4. Proposed concentration limits for each hazardous constituent, based on the criteria in s. NR 635.09, including a justification for establishing any alternate concentration limits;

5. Detailed plans and an engineering report describing the proposed groundwater monitoring system in accordance with the requirements of ch. NR 635; and

6. A description of proposed sampling, analysis and statistical comparison procedure to be utilized in evaluating groundwater monitoring data.

(f) *Design constraints.* Recommendations on design constraints for development of the site considering all available data shall be made and reasons given for the recommendations. This shall include a discussion of the potential for the site to meet locational requirements in s. NR 630.18 and make conclusions and recommendations on site development. For expansion of existing facilities, the report shall include sufficient information to assess the effectiveness of the existing facility design and operation in protecting air, surface water and groundwater quality.

(g) *Engineering plans.* Engineering plans shall consist of the following:

1. A title sheet indicating the project title, who prepared the plans, the person for whom the plans were prepared, a table of contents and a location map showing the location of the site and if applicable the area to be served.

2. A final site topography plan sheet indicating the appearance of the site at closing including the details necessary to prepare the site for long-term care.

(h) *Plan sheets.* When applicable, the following information shall be presented on the plan sheets:

1. A survey grid with base lines and monuments to be used for field control.

2. All drainage patterns and surface water drainage control structures both within the actual fill area and at the site perimeter. Structures may include all piping, berms, sedimentation basins, pumps, culverts, inlets and methods of erosion control.

3. Ground surface contours at the time represented by the drawing. Spot elevations shall be indicated for key features.

4. Access roads and traffic flow patterns to and within the facility.

5. All temporary and permanent fencing.

6. The methods of screening such as berms, vegetation or special fencing.

7. Groundwater monitoring devices and detection systems.

8. Support buildings, scale, utilities, gates and signs.

9. Special waste handling areas.
10. Construction notes and references to details.
11. Other appropriate site features.

(2) **STORAGE FACILITIES.** In addition to the requirements of sub. (1), the feasibility and plan of operation report for hazardous waste container storage facilities shall include the following:

(a) A description of the containment system to demonstrate compliance with s. NR 640.13, including:

1. Basic design parameters, dimensions and materials of construction.
2. How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system.
3. Capacity of the containment system relative to the number and volume of containers.
4. Provisions for preventing or managing run-on.
5. How accumulated liquids can be analyzed and removed to prevent overflow.

(b) A description of how s. NR 630.17 (2) shall be complied with to meet the requirements of ss. NR 640.10 and 640.15 (2).

(c) Sketches, drawings or data demonstrating compliance with the buffer zone requirements of ss. NR 640.14 and 640.15 (1).

(d) An operations and maintenance manual consisting of the following information:

1. Identification of the project title; engineering consultant; site owner, licensee and operator; proposed licensed acreage; site life and design capacity; municipalities, industries and collection and transportation agencies served; waste types and quantities to be disposed; and any exemptions applied for.

2. Specifications for site construction and operation, including detailed instructions to the site operator and any contractors for all aspects of site construction and operation. References to specifications on the plan sheets shall be pointed out as well as additional instructions included, where appropriate. The specifications shall include, as applicable, the following information:

- a. Initial site preparations including specifications for clearing and grubbing, other excavations, drainage control structures, access roads and entrance, screening, fencing and other special design features.

- b. A plan for initial site preparations including a discussion of the field measurements, photographs to be taken and sampling and testing procedures to be utilized to verify that the infield conditions encountered were the same as those contained in the feasibility and plan of operation report.

3. A description of daily operations including, as appropriate, a discussion of the timetable for development, waste types accepted or excluded, typical waste handling techniques, hours of operation, traffic routing, drainage and erosion control, windy, wet and cold weather operations,

fire protection equipment, manpower, methods for handling of incompatible waste types, methods for vector control, daily clean-up, record-keeping, parking for visitors and employees, monitoring, backup equipment with names and telephone numbers where equipment may be obtained and other special design features. This may be developed as a removable section to improve accessibility for the site operator.

(e) A design report which shall include supplemental discussions and design calculations to facilitate department review and provide supplemental information on financial responsibility for closure as required by ss. 144.44 and 144.443, Stats., including the following information:

1. A discussion of the reasoning and logic behind the design of the major features of the site or facility as appropriate, such as traffic routing, base grade and relationships to subsurface conditions, anticipated waste types and characteristics, phases of development, facility monitoring, and similar design features shall be provided. A list of the conditions of site development as stated in the department determination of the feasibility and the measures taken to meet the conditions shall be included. A discussion of all calculations, estimate of site life and surface water run-off shall be included. The calculations shall be summarized with the detailed equations presented in the appendix.

2. A closure plan as required by ss. NR 640.16 and 685.05.

3. A detailed analysis in accordance with s. NR 685.07 shall be made of the financial responsibility for closure from the time of site or facility closing to termination.

(f) A contingency plan as specified in ss. NR 630.21 and 630.22 (1) and (2).

(g) An appendix which shall include any additional data not previously presented, calculations, material specifications, operating agreements and other appropriate information.

(3) **TREATMENT FACILITIES.** In addition to the requirements of sub. (1), the feasibility and plan of operation report for hazardous waste treatment facilities shall include the following:

(a) The supplemental narrative information required by sub. (1) (d) which shall include the following:

1. Proposed process layout. The extent of coverage shall include the receiving, processing and loadout areas. The minimum scale shall be one inch = 200 feet. Plan details shall include conceptual design for receiving area configuration and traffic flow patterns, treatment area and equipment configuration, loadout area and equipment configuration, traffic flow patterns and other pertinent design features.

2. Cross-sections. At least one cross-section shall be drawn through the treatment area, each process line where applicable, indicating existing topography, the design of building foundations and other pertinent design features. More cross-sections may be necessary depending on complexity of site or facility design.

(b) Complete construction plans and specifications detailing the exact configurations, locations, elevations, dimensions and construction and installation procedures for all structures, equipment and site modifications associated with the treatment process. Where practical the mini-

mum scale utilized shall be one inch = 20 feet for buildings, equipment and structures, and one inch = 100 feet for site plans. To facilitate review, the construction plans and specifications shall include separate engineering drawings for the following:

1. Existing site conditions. The extent of coverage and plan details shall be the same as required for an existing site conditions map in sub. (1) (d) 3.

2. Construction conditions. A plot plan shall be submitted which indicates the appearance of the site during facility construction. The extent of coverage and scale shall be identical to those required for an existing site conditions map in sub. (1) (d) 3. The plot plan shall show limits of construction areas to be cleared of vegetation and topsoil, demolition of existing structures, areas of borrow and fill, temporary or permanent drainage diversion, soil erosion protection measures, construction access roads, soil and stripped vegetation stockpiles or storage areas, equipment storage areas, and other details necessary to determine the impacts during facility construction.

3. Facility plan. A plot plan shall be submitted showing the facility at completion of construction. The extent of coverage and scale shall be the same as required for an existing site conditions map in sub. (1) (d) 3. Plan details shall include those required for the existing site conditions map and any modifications thereto, plus means of limiting access such as fencing, gates or natural barriers; methods of screening the facility from the surrounding area; general layout of receiving, processing and loadout areas and equipment; traffic flow patterns; access roads; and location of discrete air contaminant discharges.

(c) A design report with the construction plans and specifications providing a discussion of design features, logic and calculations. The report shall discuss the following;

1. Where applicable, show calculations for size and configuration of receiving area; size, configuration and capacity of process treatment equipment, methods of handling liquid wastes resulting from operations such as floor drains, sewers and water treatment facilities; residence time and process equipment; size and configuration of loadout and storage facilities for process outputs; sizing of surface water drainage control structures; traffic queuing and flow patterns; design life of facility equipment, buildings and appurtenances; timetable for construction; and methods of screening the facility from the surrounding area. The calculations shall be summarized with detailed equations presented in the appendix.

2. Explain how the materials used in construction of the treatment facility shall be compatible, under expected operating conditions, with the hazardous waste and any treatment chemicals or reagents used in the treatment process.

3. Contain waste analyses for chemical, physical or biological treatment processes. In addition to the waste analysis required by s. NR 630.12, whenever a hazardous waste which is substantially different from waste previously treated in a treatment process or equipment at the facility is to be treated in that process or equipment, or a substantially different process than any previously used at the facility is to be used to chemically treat hazardous waste, the owner or operator shall:

a. Conduct waste analyses and trial treatment tests, such as bench scale or pilot plant scale tests; or

b. Obtain written, documented information on similar treatment of similar waste under similar operating conditions to show that this proposed treatment will meet all applicable requirements of sub. (3) (c) 2. and s. NR 630.17 (2).

4. That all uncovered reaction containers shall be sized to provide no less than 2 feet freeboard at any time to prevent splashing or spillage of hazardous waste during the treatment.

5. That a facility shall have the capacity to remove and store the emergency transfer of reactor contents, or shall have emergency storage capacity to be used in the event of an equipment breakdown or malfunction.

6. That where hazardous waste is continuously fed into a treatment process or equipment, the process or equipment shall be equipped with an automatic waste feed cutoff or a by-pass system which is activated when a malfunction in the treatment process occurs.

7. That all residuals or by-products from a treatment process shall be analyzed to determine whether they are a hazardous waste as identified in ch. NR 605 or they shall be assumed to be a hazardous waste.

8. That the unloading of hazardous waste shall take place only in approved, designated areas.

9. That if, for any reason the treatment facility is rendered inoperable or is not able to completely process the hazardous waste, an approved alternative method shall be used for hazardous waste treatment or disposal.

10. That chemical, physical or biological treatment of hazardous waste, shall comply with the general requirements for ignitable, reactive or incompatible wastes in s. NR 630.17 (2).

11. That incompatible wastes may not be placed in the same process or equipment used for chemical, physical or biological treatment.

12. That ignitable or reactive waste may not be placed in a process or equipment used to chemically, physically or biologically treat a hazardous waste unless:

a. The waste is treated, rendered or mixed before or immediately after placement in the process or equipment so that the resulting mixture or dissolution of material no longer meets the criteria of ignitable or reactive waste in ss. NR 605.08 (2) or (4) and 630.17 (2) is complied with, or;

b. The waste is treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react.

(d) Operations and maintenance manual. A manual shall be prepared with separate sections specifying operating and maintenance procedures for the following:

1. Facility startup and process shakedown. This shall include a discussion of personnel training, quantities and characteristics of hazardous waste to be processed; process line startup procedures and equipment performance evaluations; fire, dust, and vapor control systems; perform-

ance evaluations; process raw materials on hand at startup; process outputs testing; and other appropriate startup procedures.

2. Normal operations. This shall include a discussion of operating personnel responsibilities; hours of operation; daily processing schedule; routine process monitoring including monitoring quantity and quality of hazardous waste input; process output testing; equipment maintenance schedules; methods of controlling explosions, fire, odors and windblown materials; special waste handling procedures; method of controlling access; daily cleanup procedures; facility bypass procedures during major breakdowns and alternative means of disposal; person responsible for operation; site or facility licensee and owner; recordkeeping; emergency procedures for handling of freezepup during cold weather; methods to prevent hazardous waste from burning; and other pertinent information.

3. Record retention. Records of operating conditions shall be retained as specified in s. NR 630.31.

4. Closure plan. A closure plan as required by ss. NR 640.16 and 685.05.

5. Detailed analysis. A detailed analysis in accordance with s. NR 685.07 shall be made of the financial responsibility for closure from the time of site or facility closing to termination.

(4) DEPARTMENT'S REVIEW. (a) Within 60 days after a feasibility and plan of operation report is submitted, the department shall either determine that the report is complete or notify the applicant in writing that the report is not complete, specifying the information which the applicant shall submit before the report is deemed complete. The department shall determine whether or not the feasibility and plan of operation report is complete by determining whether or not the minimum requirements in s. NR 640.07 (3) (a) have been met. Additional information may be required of the applicant after a determination that the report is complete only if the department establishes that a detailed review of the report indicates that feasibility cannot be determined or the report is insufficient in the absence of additional information.

(b) If no hearing has been conducted under s. 144.44, Stats., the department shall issue the final determination for the feasibility and plan of operation report within 60 days after the 45 days notice period required under s. 144.44 (2) (1) and (m), Stats., has expired. If an informational hearing is conducted under s. 144.44 (2g), Stats., the department shall issue a final determination for the feasibility and plan of operation report within 60 days after the hearing is adjourned. If a contested case hearing is conducted under s. 144.44 (2r), Stats., a final determination for the feasibility and plan of operation report shall be issued within 90 days after the hearing is adjourned.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91; am. (2) (d) 3. and (3) (c) 8., Register, August, 1992, No. 440, eff. 9-1-92; correction in (1) (intro.) made under s. 13.93 (2m) (b) 7, Stats., Register, March, 1993, No. 447.

NR 640.07 Small storage facility requirements. (1) GENERAL. The feasibility and plan of operation report submittal requirements of sub. (3) may be met in lieu of the requirements of s. NR 640.06 for hazardous waste storage facilities that have the following characteristics:

(a) Hazardous waste storage is entirely in an enclosed and roofed structure having access limited or restricted to employees or other authorized personnel;

(b) Hazardous waste storage is confined to a floor area of 1500 sq. ft. or less;

(c) Hazardous waste storage does not exceed 10,000 gallons at any time;

(d) Hazardous waste is stored generally for the purpose of accumulating a sufficient quantity for a more economical transfer for treatment or disposal; and

(e) All hazardous waste is stored in containers.

(2) EXEMPTIONS. (a) The owner or operator of a hazardous waste small storage facility is exempt from the feasibility and plan of operation report requirements in sub. (3) for that facility, if:

1. The owner or operator has been issued a permit for storage of hazardous waste at the facility under 42 USC 6925 (c);

Note: The publication containing Title 42 of the United States Code may be obtained from:

The Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

2. The facility is in compliance with the permit required under subd. 1; and

3. If the facility only stores wastes that do not contain free liquids, the facility shall obtain written approval of the information required under sub. (3) (a) 7. This information shall be submitted in accordance with s. NR 680.05 (1) (b) and (c).

(b) Any person exempt from sub. (3) under par. (a) shall obtain an operating license as required under s. NR 680.31.

(3) FEASIBILITY AND PLAN OF OPERATION REPORT. (a) Any person proposing to establish, construct, expand or obtain an initial operating license under s. NR 680.31 for a hazardous waste small storage facility shall first obtain written approval of a feasibility and plan of operation report from the department, unless exempted under sub. (2). The feasibility and plan of operation report shall be submitted in accordance with s. 144.44, Stats., and ss. NR 680.05, 680.06 and 680.09, and shall at a minimum, contain the following information:

1. A narrative description of the area proposed for storage of hazardous waste;

2. A general floor plan of the storage area and any pertinent adjacent areas;

3. A description of any existing or proposed fire prevention or control systems, communication equipment and security systems or arrangements at the facility;

4. A description of the hazardous or solid wastes, that will be stored at the proposed facility, along with projected volumes or weights and accumulation times;

5. An evaluation of the storage area's capability of containing spills;
6. A description of any past experience with storage of hazardous wastes at the facility;
7. For container storage, a description of the containment system to demonstrate compliance with s. NR 640.13, including:
 - a. Basic design parameters, dimensions and materials of construction.
 - b. How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system.
 - c. Capacity of the containment system relative to the number and volume of containers.
 - d. Provisions for preventing run-on.
 - e. How accumulated liquids can be analyzed and removed to prevent overflow;
8. Storage and waste management procedures, including a description of how s. NR 630.17 (2) will be complied with to meet the applicable requirements of ss. NR 640.10 and 640.15;
9. An explanation of recordkeeping and container labeling procedures;
10. A contingency plan, as required by ss. NR 630.21 and 630.22 (1) and (2);
11. A plan sheet, sketch or other data which demonstrates compliance with the buffer zone requirements in s. NR 640.15 (1);
12. A closure plan for the facility, as required by ss. NR 685.05 and 640.16 (2); and
13. The most recent closure cost estimate for the facility prepared in accordance with s. NR 685.07 (2).

(b) Within 60 days after a feasibility and plan of operation report is submitted, the department shall either determine that the report is complete or notify the applicant in writing that the report is not complete, specifying the information which the applicant shall submit before the report is deemed complete. The department shall determine whether or not the feasibility and plan of operation report is complete by determining whether or not the minimum requirements in par. (a) have been met. Additional information may be required of the applicant after a determination that the report is complete only if the department establishes that a detailed review of the report indicates that feasibility cannot be determined or the report is insufficient in the absence of additional information.

(c) If no hearing has been conducted under s. 144.44, Stats., the department shall issue the final determination for the feasibility and plan of operation report within 60 days after the 45 days notice period required under s. 144.44 (2) (l) and (m), Stats., has expired. If an informational hearing is conducted under s. 144.44 (2g), Stats., the department shall issue a final determination for the feasibility and plan of operation report within 60 days after the hearing is adjourned. If a contested case hearing is conducted under s. 144.44 (2r), Stats., a final determination for the

feasibility and plan of operation report shall be issued within 90 days after the hearing is adjourned.

(d) The department may conduct a site visit during the plan review period.

(e) Based on the site visit under par. (d), the department may require additional information for the feasibility and plan of operation report as provided in s. NR 640.06.

(4) **OPERATION.** A storage facility approved under this section shall meet all of the substantive and operating requirements of ss. NR 640.08 to 640.15.

(5) **CLOSURE.** Closure requirements specified under ss. NR 685.05 and 640.16 are applicable to small storage facilities approved under this section.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.08 Aisle space requirements. (1) Adequate aisle space shall be maintained to allow for the unobstructed movement of personnel, fire protection equipment, spill control equipment and decontamination equipment to any area of facility operation in an emergency.

(2) Adequate aisle space shall be maintained to allow for the unobstructed movement of personnel conducting inspections required by s. NR 640.12.

(3) The department may specify a minimum aisle space on a case by case basis depending upon factors such as total number of containers stored, container management and handling techniques, container stack height and fire protection and spill control equipment maintained at the facility.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.09 Condition of containers. Hazardous waste shall be managed in containers that are in good condition. If a container is not in good condition or if the contents of a storage or treatment container begin to leak, the hazardous waste in the container shall be recontainerized in a storage or treatment container in good condition.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.10 Compatibility of waste with containers. Hazardous waste containers shall be made or lined with materials which 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.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.11 Management of containers. (1) In accordance with s. NR 630.31 (1) and (2), the identity and location of all hazardous waste shall be known throughout the entire storage period or until the waste is treated so that it is no longer hazardous.

(2) A container holding hazardous waste shall always be closed during storage, except when it is necessary to add or remove waste.

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(3) A container holding hazardous waste may not be opened, handled or stored in a manner which may rupture the container or cause it to leak.

(4) All uncovered containers used as reaction vessels shall be sized to provide no less than 2 feet of freeboard at any time to prevent splashing or spilling of hazardous waste during treatment.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.12 Inspections. (1) The owner or operator of a container storage facility shall inspect at least weekly, all containers and areas where containers are stored or treatment occurs, looking for leaks and for deterioration of containers and the containment system, caused by corrosion or other factors in accordance with s. NR 630.15. Records of these inspections shall be maintained in accordance with s. NR 630.31.

(2) The owner or operator of a facility that treats hazardous waste shall inspect, where present:

(a) Discharge control and safety equipment, such as waste feed cut-off systems, by-pass systems, drainage systems, and pressure relief systems, at least once each operating day, to ensure that it is in good working order;

(b) Data gathered from monitoring equipment, such as pressure and temperature gauges, at least once each operating day, to ensure that the treatment process or equipment is being operated according to its design;

(c) The construction materials of the process equipment, at least weekly, to detect corrosion or leaking of fixtures or seams; and

(d) The construction materials of, and the area immediately surrounding, discharge confinement structures, such as dikes, at least weekly, to detect erosion or obvious signs of leakage, such as wet spots or dead vegetation.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.13 Containment. (1) Each storage area for containers shall have a containment system designed and constructed to have a continuous base which is free of cracks or gaps and is impervious to the material to be stored, and will contain any hazardous waste discharges, leaks or spills and precipitation until the collected material is detected and can be removed. The base of the storage areas shall be sloped or the containment system shall be otherwise designed and operated to drain and remove liquids resulting from hazardous waste discharges, leaks, spills and any precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids. The storage areas shall have a discharge confinement structure with a minimum capacity equal to the contents of the largest container, or 10% of the total amount of stored waste, whichever is greater. If the storage area is not enclosed, the discharge confinement structure shall also provide sufficient freeboard to allow for containment of precipitation resulting from a 24-hour, 25-year storm. Surface water run-on to the containment system shall be prevented. Spilled, leaked or discharged waste and accumulated precipitation shall be removed from a sump or the collection area in an expedient manner and quickly enough to prevent an overflow of the confinement system.

(2) Management of hazardous waste in containers shall be conducted in such a manner that no discharge of hazardous waste occurs.

(3) Under s. NR 600.07, an owner or operator of a hazardous waste container facility may be required to comply with all or part of the requirements of chs. NR 600 to 685, including groundwater and leachate monitoring and corrective action requirements of ch. NR 635, if the department determines that there is potential for discharge of hazardous waste or hazardous waste constituents to the environment.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.14 Special requirements for ignitable or reactive waste. Containers holding ignitable or reactive waste shall be located at least 50 feet from the facility's property line.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.15 Special requirements for incompatible wastes. (1) Containers holding a hazardous waste which is incompatible with any waste or other materials stored nearby in other containers, waste piles, open tanks or surface impoundments shall be separated from other wastes or materials or protected from them by means of a dike, berm, wall or other device.

Note: The purpose of this section is to prevent fires, explosions, gaseous emissions, leaching or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.

(2) Hazardous waste may not be placed:

(a) In an unwashed container that previously held an incompatible waste or material.

(b) In a container that holds incompatible waste or material, unless s. NR 630.17 (2) is complied with.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.

NR 640.16 Closure. The owner or operator of a hazardous waste container facility shall meet the requirements specified in chs. NR 680 and 685 and the following requirements:

(1) The owner or operator of a facility which stores or treats hazardous waste in containers shall, at completion of closure, remove all hazardous waste and hazardous waste residues from the containment system. Remaining liners, bases, soil and related equipment or structures containing or contaminated with hazardous waste or hazardous waste residues shall be decontaminated or removed. This includes, but is not limited to, ash and sludges from treatment process and equipment, discharge control equipment and discharge confinement structures. All wastes or material which is decontaminated or removed shall be managed as a hazardous waste in accordance with the requirements of chs. NR 600 to 685, unless s. NR 605.04 (3) applies.

(2) Final disposal of hazardous waste may not be permitted at a hazardous waste storage facility, unless the facility has a separate license for disposal.

History: Cr. Register, February, 1991, No. 422, eff. 3-1-91.