

## WISCONSIN LEGISLATIVE COUNCIL STAFF

**RULES CLEARINGHOUSE**

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**CLEARINGHOUSE REPORT TO AGENCY**


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[THIS REPORT HAS BEEN PREPARED PURSUANT TO S. 227.15, STATS. THIS IS A REPORT ON A RULE AS ORIGINALLY PROPOSED BY THE AGENCY; THE REPORT MAY NOT REFLECT THE FINAL CONTENT OF THE RULE IN FINAL DRAFT FORM AS IT WILL BE SUBMITTED TO THE LEGISLATURE. THIS REPORT CONSTITUTES A REVIEW OF, BUT NOT APPROVAL OR DISAPPROVAL OF, THE SUBSTANTIVE CONTENT AND TECHNICAL ACCURACY OF THE RULE.]

**CLEARINGHOUSE RULE 00-160**

AN ORDER to renumber NR 484.03 (1) to (4) and 484.11 (7); to amend NR 422.125 (4) (intro.), 484.04 (9) and (24), 484.05 (1) and 484.06 (intro.); and to create NR 422.02 (19m), chapter 460 Appendix JJ, chapter NR 465, 484.03 (1), 484.06 (5) and 484.11 (7) and (10), relating to volatile organic compound emissions and national emission standards for hazardous air pollutants for wood furniture manufacturing.

Submitted by **DEPARTMENT OF NATURAL RESOURCES**

11-08-00 RECEIVED BY LEGISLATIVE COUNCIL.

12-07-00 REPORT SENT TO AGENCY.

RNS:DLL;jal;ksm

**LEGISLATIVE COUNCIL RULES CLEARINGHOUSE REPORT**

This rule has been reviewed by the Rules Clearinghouse. Based on that review, comments are reported as noted below:

1. STATUTORY AUTHORITY [s. 227.15 (2) (a)]

Comment Attached YES  NO

2. FORM, STYLE AND PLACEMENT IN ADMINISTRATIVE CODE [s. 227.15 (2) (c)]

Comment Attached YES  NO

3. CONFLICT WITH OR DUPLICATION OF EXISTING RULES [s. 227.15 (2) (d)]

Comment Attached YES  NO

4. ADEQUACY OF REFERENCES TO RELATED STATUTES, RULES AND FORMS [s. 227.15 (2) (e)]

Comment Attached YES  NO

5. CLARITY, GRAMMAR, PUNCTUATION AND USE OF PLAIN LANGUAGE [s. 227.15 (2) (f)]

Comment Attached YES  NO

6. POTENTIAL CONFLICTS WITH, AND COMPARABILITY TO, RELATED FEDERAL REGULATIONS [s. 227.15 (2) (g)]

Comment Attached YES  NO

7. COMPLIANCE WITH PERMIT ACTION DEADLINE REQUIREMENTS [s. 227.15 (2) (h)]

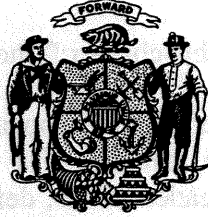
Comment Attached YES  NO

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## CLEARINGHOUSE RULE 00-160

### Comments

**[NOTE: All citations to "Manual" in the comments below are to the Administrative Rules Procedures Manual, prepared by the Revisor of Statutes Bureau and the Legislative Council Staff, dated September 1998.]**

### 2. Form, Style and Placement in Administrative Code

a. It is unclear from the rule where the department intends Appendix JJ of ch. NR 460 to be placed, relative to the other appendices to that chapter. The treatment clause of the SECTION creating the appendix could be written to indicate the department's intention, such as: "NR 460 Appendix JJ, to follow (or precede) Appendix \_\_, is created to read:". The department may want to look also at the order in which the existing appendices are printed, since they are neither in alphabetical order nor in numerical sequence relative to the chapters to which they refer.

b. Based on the definition of "affected source," the first sentence of s. NR 465.01 (1) (a) could be reduced to: "This chapter applies to affected sources." The second sentence of that paragraph should be broken out as a separate paragraph, since it establishes the treatment of incidental wood furniture manufacturers in the same manner that the following paragraphs establish the treatment of other subcategories of affected sources.

c. Section NR 465.01 (1) (b) should be reorganized to improve clarity and reduce duplication of language.

d. The last sentence of s. NR 465.01 (1) (b) 1. and similar sentences should be written in the active voice, i.e., "The owner or operator shall maintain . . . ." In the alternative, "for 5 years" could be inserted after "maintain" in the previous sentence.

e. Section NR 465.01 (1) (e) and (f) relate to compliance dates, rather than applicability. It would appear that they should be placed with the other provisions relating to compliance dates.

f. In s. NR 465.02 (intro.), "In this chapter:" should be inserted at the end.

g. The rule defines far more terms than appears to be necessary. The purpose of a definition is to inform the reader of the meaning of a word or term used in a rule where that meaning is not readily apparent to the reader. Thus, definitions should be limited to words and terms actually used in the rule whose meaning cannot be determined from context with the aid of a standard dictionary. In addition, to the extent possible, words or terms used once or twice in a rule should not be defined; usually, it is possible to replace these with descriptive language that avoids the need for a definition. With these observations in mind, the following are examples of unnecessary or inappropriate definitions, drawn from only the first half of s. NR 465.02. All the definitions in that section should be reviewed to determine whether they are necessary and appropriate.

- "Baseline conditions" is not used in the rule and so should not be defined. "Baseline level" is used several times, but the context makes its meaning clear and so it does not need defining.

- "Capture device" is used only once; the text of the rule should be modified to clarify the meaning without a definition.

- "Cleaning operations" is used only three times, but its meaning is obvious and it is clear from the context that the rule applies to cleaning with hazardous air pollutant (HAP) solvents, not other kinds of cleaning. Thus, this definition is unnecessary.

- "Coating application station" is not used in the rule and "coating operation" is used only in the definition of "coating application station." What is more, the definitions of the terms are just common sense meanings of the words. Clearly, these terms do not need to be defined.

- The meaning of "control system" is obvious enough that a definition is not needed.

- "Disposed offsite" and "recycled onsite" are both used only once; in addition, the definitions are entirely obvious. These terms do not need to be defined.

- "Equipment leak" is not used in the rule and so should not be defined. "Leak" is used several times but, again, its meaning is obvious and so it does not need defining.

- The definitions of "finishing material" and "finishing operation" do not add anything to the plain meaning of the terms and so should be omitted.

- "Gluing operation" is not used in the rule and so should not be defined. "Gluing" is used in two other definitions but, again, its meaning is obvious and so it does not need defining.

- “Janitorial maintenance” is not used in the rule and so should not be defined. “Janitorial or facility grounds maintenance” is used twice but, again, its meaning is obvious and so it does not need defining.

h. Definitions should not include substantive requirements; instead, these provisions should be incorporated into the text of the rule. Examples of substantive provisions that should be moved from definitions to the text of the rule include: all of the definition of “certified product data sheet” except for s. 465.02 (11) (intro.); the material following the semicolon in the definition of “coating solids”; the second sentence of the definition of “contact adhesive”; and the second and third sentences of the definition of “continuous coater.”

i. Similarly, explanatory material should not be included in definitions; this material should be placed in a note following the definition. Examples of explanatory material that should be moved from definitions to notes include the second and third sentences of the definition of “conventional air spray” in ss. NR 422.02 (19m) and 465.02 (23) and the second sentence of the definition of “washcoat.” In addition, explanatory material should not be included in substantive provisions. Examples of explanatory material that should be moved from substantive provisions to notes include the examples provided in s. NR 465.01 (1) (g) (“e.g., incinerators, carbon adsorbers, etc.”, “e.g., product recovery” and the last three sentences) and the phrase “for example, all VOC and HAP present in the coating solvent” in s. NR 465.09 (1). [See s. 1.09, Manual.]

j. The rule defines the term “compliant coating,” which is used several times in the rule. However, since the word “compliant” is also used to modify a number of other nouns, it would be more appropriate to define “compliant.” A possible definition would be: “Compliant,” when referring to a finishing material, contact adhesive or strippable spray booth material, means meeting the requirements of s. NR 465.04.” The same applies to “noncompliant.”

k. The term “continuous compliance” appears to be intended to distinguish between initial compliance (on the initial compliance date) and compliance thereafter. “Continuous” seems to be the wrong word to describe this, especially since compliance (at least in some cases) is based on monthly averages and is not necessarily continuous. Better terms would be “continuing compliance,” “on-going compliance” or, simply, “compliance.”

l. “Normally closed container” is an awkward term, where “closed container” would suffice. Of course, a closed container must be opened to add materials to it or remove materials from it, but what matters, for example in s. NR 465.05 (7), is that the container is closed during storage. Furthermore, there would be no need to define “closed container.”

m. The second sentence of the definition of “sealer” should read: ““Sealer” does not include special purpose . . . .” The second sentence of the definition of “stain” should read: ““Stain” includes nongrain raising stains . . . .” Note the omission of the phrase, “but is not limited to”; this is implied by the word “includes.”

n. Many of the symbols defined in s. NR 465.03 are meaningless out of the context of the formulae in which they are used. While it might add some length to the rule, it would seem more helpful to define the terms of formulae according to the convention of listing them

immediately after the formulae in which they are used. Also, the rule is inconsistent in its explanation of the subscripts for some of the symbols used in formulae. For example, the "j" in "C<sub>aj</sub>" and the "i" in "C<sub>bi</sub>" are explained, but not the "a" or "b." Also, there is no explanation of the subscripts of the terms "M<sub>c</sub>" in Equation 1, "E<sub>bc</sub>" or "E<sub>ac</sub>" in Equations 2 and 4 or "G<sub>bc</sub>" or "G<sub>ac</sub>" in Equation 3. In addition, if the format of s. NR 465.03 is used, the terms being defined should be placed in quotes, as is done for other definitions.

o. The rule is inconsistent in the format it uses to apply requirements to affected sources. The format "Each owner or operator of an affected source . . ." is used, for example, in s. NR 465.04 (1) (intro.), works for affirmative requirements, but not as well for prohibitions--see, for example, s. NR 465.05 (6). Instead, the format used in s. NR 465.06 (1) (a) is suggested: "The owner or operator of an affected source . . ." Also, the format "Owners or operators of an affected source . . ." used in s. NR 465.07 (1) (intro), should not be used. In s. NR 465.05 (8) (f) (intro.), the rule drops the reference to an owner or operator altogether. In s. NR 465.04 (2) (intro.), the phrase "subject to this chapter" should be omitted.

p. The rule is confusing as to how and where it establishes volatile organic compound emission limits for affected sources. Section NR 465.04 is titled "Emission limits", but it specifies only some of the specific limits while referring to Table 2 for others. Table 2, on the other hand, appears to be a summary of the various limits, not the authoritative statement of the standards. In some ways, the most complete statement of the limits themselves appears to be in s. NR 465.06, Compliance methods and procedures. One approach to clarifying these provisions would be to: (1) provide a complete statement of the standards in text in s. NR 465.04; (2) leave Table 2 as it is, as a summary, but place it directly following s. NR 465.04; and (3) to the extent possible, replace the repetitions of specific standards in s. NR 465.06 with cross-references to the standards in s. NR 465.04.

q. On several occasions, the rule uses a term and then interjects an explanation of the term. These generally are terms that do not warrant definition, in which case the term should be omitted and the explanation used in its place. For example, the second and third sentences of s. NR 465.05 (2) should read: "Personnel hired on or after the compliance date shall be trained upon hiring. Personnel hired before the compliance date shall be trained within 6 months of the compliance date." (Also, in the first sentence of that section, the words "new and existing" should be omitted.) In another example, s. NR 465.05 (8) (c) should read: "When the spray gun is aimed and triggered automatically." Also, in s. NR 465.05 (6), the phrase "unless the spray booth is being refurbished" should be omitted from the first sentence; the second sentence should begin: "If the spray booth coating or other protective material is being replaced, . . ."

r. The last sentence of s. NR 465.05 (8) (f) (intro.) should be rewritten as follows: "The owner or operator shall use one or both of the following criteria to support a claim that no other spray application technology is technically or economically feasible:"

s. The format of the introductory provisions used in s. NR 465.06 should be revised. For example, sub. (1) (a) (intro.) refers to existing affected sources that are subject to s. NR 465.04 (1) (a), while all such sources are subject to that section. In addition, it requires these sources to comply, but does not say with what they must comply. This should be rewritten as follows: "The owner or operator of an existing affected source shall comply with s. NR 465.04

(1) (a) using any of the following methods:”. The same format should be used for sub. (2) (a) (intro.) and (b) (intro.); sub. (1) (b) and (c) (intro.) should be modified by adding “with s. NR 465.04 (1) (b) 1.” and “with s. NR 465.04 (1) (b) 2.” after “comply” in the respective provisions. The same format should be used for s. NR 465.08 (4).

t. Section NR 465.06 (1) (a) 2. (intro.) should read: “Demonstrate one or more of the following, as appropriate:”. Each of the following subdivision paragraphs should begin with the word “That.” As was suggested earlier, the text of the subdivision paragraphs could be replaced with a reference to the appropriate standard in s. NR 465.04.

u. The format used in s. NR 465.07 should be revised along the lines of the format used in s. NR 465.08 (1) (a) and (b). For example, sub. (1) (b) should read: “If complying by using the methods in s. NR 465.06 (1) (a) 2. or (2) (a) 2., state in the initial compliance report under s. 465.11 (2) that . . . .” Similar modifications should be made, as appropriate, throughout this section.

v. The procedures cross-referenced in s. NR 465.07 (1) (d) 4. e. are only one sentence, which could easily be repeated in this section, rather than making the reader find it in another section. Similarly, the cross-reference in s. NR 465.10 (10) could be eliminated, aiding the reader by reproducing three sentences.

w. There is a large amount of duplicated language in s. NR 465.07 and especially in s. NR 465.08. These sections should be reorganized in a way that eliminates this extensive duplication.

x. In s. NR 465.08 (3), “should” should be replaced with “shall.”

y. It appears that s. NR 465.09 (1) should be broken into three paragraphs, without an introduction. Paragraph (a) should start as follows: “Except as provided in par. (c), the owner or operator of an affected source shall use Method 311 . . . .” Paragraph (b) should start as follows: “Except as provided in par. (c), the owner or operator of an affected source shall use Method 24 . . . .” Paragraph (c) would consist of the last two sentences of the subsection.

z. The cross-reference in s. NR 465.09 (4) should be to sub. (3), since it is an internal cross-reference and it includes all paragraphs of that subsection.

aa. Sections NR 465.11 (2) and (3) should be collapsed into one subsection to avoid duplication of language. Section NR 465.11 (3) (d) appears unnecessary.

ab. By creating s. NR 484.11 (10) and Table 6I, the department is leaving a gap in the numbering within that section. Is this intentional?

#### **4. Adequacy of References to Related Statutes, Rules and Forms**

a. To aid the reader, the second sentence of s. NR 465.05 (1) should end with a reference to the provision establishing the compliance dates.

b. Section NR 465.05 (12) (b) (intro.) should read: "If . . . the VHAP identified under par. (a) 1. exceeds the baseline level established under par. (a) 2., . . ."

### 5. Clarity, Grammar, Punctuation and Use of Plain Language

a. In s. NR 465.01 (1) (a), the phrase, "The owner or operator of a source that meets the definition for" should be omitted. Also, the cross-reference in that section should read "s. NR 465.02 (33)."

b. In s. NR 465.05 (2) (d), what successful completion is to be documented, presentation of the material by the employer or mastery of the material by the employees?

c. How does s. NR 465.05 (3) (a) and (b) relate to each other? Paragraph (b) requires an inspection schedule but does not say what kind of inspection is required; par. (a) requires visual inspection and specifies the minimal schedule. These need clarification, presumably by expanding par. (b).

d. In s. NR 465.05 (5), the comma following "Table 3" should be omitted and the word "which" should be replaced by the word "that." In s. NR 465.05 (12) (a) 3., the phrase "by the affected source" should be omitted and the word "which" should be replaced by the word "that." In s. NR 465.05 (12) (d), the word "which" should be replaced by the word "that" and a period should be placed at the end of the second sentence. Also, Latin terms should be avoided in rules. [See s. 1.01 (1), Manual.] Can "minimal" be substituted for "de minimis" in s. NR 465.05 (12) (d) and elsewhere?

e. In s. 465.05 (5) and elsewhere in the rule, "an" should be used before "MSDS."

f. Section NR 465.05 (6) excludes the cleaning of certain components from the standards--what standards, if any, apply to the cleaning of these components?

g. Section NR 465.05 (12) (a) 2. requires baselines based on 1994, 1995 and 1996 activities. Is it known that all affected sources will have the data necessary to establish these baselines? How does a facility that was not in operation prior to 1997 establish a baseline?

h. The second sentence of s. NR 465.05 (12) (b) 2. is unclear. Presumably, it means that the source may adjust its *calculation* of usage. However, does this authorization apply only to *de minimis* usage, or should this sentence be moved to the introduction of the paragraph so that it applies to all cases where annual usage exceeds baseline usage, or to another provision of the rule so that it applies even more broadly?

i. In s. NR 465.09 (5), would it be clearer to write a new formula for calculating  $E_{ac}$ , rather than requiring the reader to rewrite Equation 2 for this purpose? The same applies to the following subsections.



re produce here - all it says is:  
keep for 5 yrs; 2 yrs. onsite; elec. format ok.

2

maintain all records in accordance with the requirements of s. NR 460.09(2)(a).

**NR 465.11 Reporting requirements.** (1) The owner or operator of an affected source subject to this chapter shall fulfill all <sup>comply w/</sup> reporting requirements of ss. NR 460.06 to 460.09 according to the applicability criteria in s. NR 465.01(1)(d).

(2) <sup>(a)</sup> The owner or operator of an affected source demonstrating compliance in accordance with s. NR 465.07(1)(a) to (c), (2)(a), (3) or (4) shall submit the compliance status report required by s. NR 460.08(8) no later than 60 days after the compliance date.

The report shall include the information required by s. NR 465.07(1)(a) to (c), (2)(a), (3) or (4).

~~(3) The owner or operator of an affected source demonstrating compliance in accordance with s. NR 465.08(1)(a) to (c), (2)(a),~~

~~(3) or (4) shall submit a report covering the previous 6 months of wood furniture manufacturing operations as follows:~~

<sup>b</sup> ~~(a)~~ <sup>under par. (a)</sup> The first report shall be submitted no later than 30 calendar days after the end of the first 6-month period following the compliance date.

~~(b)~~ Subsequent reports shall be submitted no later than 30 calendar days after the end of each 6-month period following the first report.

~~(c)~~ <sup>under par. (a)</sup> ~~The semiannual~~ reports shall <sup>and shall include a list of:</sup> include the information

duplicate in (c) (omit here)

required by s. NR 465.08(1)(a) to (c), (2)(a), (3) and (4), <sup>2.</sup> a statement of whether the affected source was in compliance or noncompliance, ~~and,~~ <sup>3.</sup> if the affected source was in noncompliance, the measures taken to bring the affected source into compliance.

(d) The frequency of the reports may not be reduced from semiannually regardless of the history of the owner's or operator's compliance status. } necessary?

(4) The owner or operator of an affected source demonstrating compliance in accordance with s. NR 465.08(1)(d) or (2)(b) shall submit the excess emissions and continuous monitoring system performance report and summary report required by s. NR 460.09(5). The report shall include the monitored operating parameter values required by s. NR 465.08(1)(d) or (2)(b). If the source experiences excess emissions, the report shall be submitted quarterly for at least one year after the excess emissions occur and until a request to reduce reporting frequency is approved, as indicated in s. NR 460.09(5)(c)1.c. If no excess emissions occur, the report shall be submitted semiannually.

(5) The owner or operator of an affected source required to provide a written notification under s. NR 465.05(12)(b) shall include in the notification one or more statements that explains the reasons for the usage increase. The notification shall be submitted no later than 30 calendar days after the end of the annual period in which the usage increase occurred.

Table 1  
List of Volatile Hazardous Air Pollutants

Chemical Name	CAS Number
Acetaldehyde	75070
Acetamide	60355
Acetonitrile	75058
Acetophenone	98862
2-Acetylaminofluorine	53963
Acrolein	107028
Acrylamide	79061
Acrylic acid	79107
Acrylonitrile	107131
Allyl chloride	107051
4-Aminobiphenyl	92671
Aniline	62533
o-Anisidine	90040
Benzene	71432
Benzidine	92875
Benzotrichloride	98077
Benzyl chloride	100447
Biphenyl	92524
Bis(2-ethylhexyl) phthalate (DEHP)	117817
Bis(chloromethyl) ether	542881
Bromoform	75252
1,3-Butadiene	106990
Carbon disulfide	75150

6769

Carbon tetrachloride	56235
Carbonyl sulfide	463581
Catechol	120809
Chloroacetic acid	79118
2-Chloroacetophenone	532274
Chlorobenzene	108907
Chloroform	67663
Chloromethyl methyl ether	107302
Chloroprene	126998
Cresols (isomers and mixture)	1319773
o-Cresol	95487
m-Cresol	108394
p-Cresol	106445
Cumene	98828
2,4-D (2,4-Dichlorophenoxyacetic acid, including salts and esters)	94757
DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl) ethylene)	72559
Diazomethane	334883
Dibenzofuran	132649
1,2-Dibromo-3-chloropropane	96128
Dibutylphthalate	84742
1,4-Dichlorobenzene	106467
3,3'-Dichlorobenzidine	91941
Dichloroethyl ether (Bis(2-chloroethyl) ether)	111444
1,3-Dichloropropene	542756
Diethanolamine	111422
N,N-Dimethylaniline	121697

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Diethyl sulfate	64675
3,3'-Dimethoxybenzidine	119904
4-Dimethylaminoazobenzene	60117
3,3'-Dimethylbenzidine	119937
Dimethylcarbamoyl chloride	79447
N,N-Dimethylformamide	68122
1,1-Dimethylhydrazine	57147
Dimethyl phthalate	131113
Dimethyl sulfate	77781
4,6-Dinitro-o-cresol, and salts	534521
2,4-Dinitrophenol	51285
2,4-Dinitrotoluene	121142
1,4-Dioxane (1,4-Diethyleneoxide)	123911
1,2-Diphenylhydrazine	122667
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106898
1,2-Epoxybutane	106887
Ethyl acrylate	140885
Ethylbenzene	100414
Ethyl carbamate (Urethane)	51796
Ethyl chloride (Chloroethane)	75003
Ethylene dibromide (Dibromoethane)	106934
Ethylene dichloride (1,2-Dichloroethane)	107062
Ethylene glycol	107211
Ethylene oxide	75218
Ethylenethiourea	96457
Ethylidene dichloride (1,1-Dichloroethane)	75343
Formaldehyde	50000
Glycol ethers <sup>a</sup>	

Hexachlorobenzene	118741
Hexachloro-1,3-butadiene	87683
Hexachloroethane	67721
Hexamethylene-1,6-diisocyanate	822060
Hexamethylphosphoramide	680319
Hexane	110543
Hydrazine	302012
Hydroquinone	123319
Isophorone	78591
Maleic anhydride	108316
Methanol	67561
Methyl bromide (Bromomethane)	74839
Methyl chloride (Chloromethane)	74873
Methyl chloroform (1,1,1-Trichloroethane)	71556
Methyl ethyl ketone (2-Butanone)	78933
Methylhydrazine	60344
Methyl iodide (Iodomethane)	74884
Methyl isobutyl ketone (Hexone)	108101
Methyl isocyanate	624839
Methyl methacrylate	80626
Methyl tert-butyl ether	1634044
4,4'-Methylene bis(2-chloroaniline)	101144
Methylene chloride (Dichloromethane)	75092
4,4'-Methylenediphenyl diisocyanate (MDI)	101688
4,4'-Methylenedianiline	101779
Naphthalene	91203
Nitrobenzene	98953
4-Nitrobiphenyl	92933
4-Nitrophenol	100027

2-Nitropropane	79469
N-Nitroso-N-methylurea	684935
N-Nitrosodimethylamine	62759
N-Nitrosomorpholine	59892
Phenol	108952
p-Phenylenediamine	106503
Phosgene	75445
Phthalic anhydride	85449
Polychlorinated biphenyls (Aroclors)	1336363
Polycyclic Organic Matter <sup>b</sup>	
1,3-Propane sultone	1120714
β-Propiolactone	57578
Propionaldehyde	123386
Propoxur (Baygon)	114261
Propylene dichloride (1,2-Dichloropropane)	78875
Propylene oxide	75569
1,2-Propylenimine (2-Methyl aziridine)	75558
Quinone	106514
Styrene	100425
Styrene oxide	96093
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
1,1,2,2-Tetrachloroethane	79345
Tetrachloroethylene (Perchloroethylene)	127184
Toluene	108883
2,4-Toluenediamine	95807
Toluene-2,4-diisocyanate	584849
o-Toluidine	95534
1,2,4-Trichlorobenzene	120821
1,1,2-Trichloroethane	79005

Trichloroethylene	79016
2,4,5-Trichlorophenol	95954
2,4,6-Trichlorophenol	88062
Triethylamine	121448
Trifluralin	1582098
2,2,4-Trimethylpentane	540841
Vinyl acetate	108054
Vinyl bromide	593602
Vinyl chloride	75014
Vinylidene chloride (1,1-Dichloroethylene)	75354
Xylenes (isomers and mixture)	1330207
o-Xylene	95476
m-Xylene	108383
p-Xylene	106423

<sup>a</sup>Includes mono- and di-ethers of ethylene glycol, diethylene glycols and triethylene glycol;  $R-(OCH_2CH_2)_n-OR'$  where:

$n = 1, 2 \text{ or } 3$

$R = \text{alkyl or aryl groups}$

$R' = R, H, \text{ or groups which, when removed, yield glycol ethers with the structure: } R-(OCH_2CH_2)_n-OH.$  Polymers are excluded from the glycol category.

<sup>b</sup>Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 °C.



Could be clearer what is being measured - (1)(a) + (b) is measuring content of materials, but what do (1)(k) + (d) measure? ~~(2)~~ 0.

Table 2

Summary of Emission Limits and Compliance Demonstration Methods

Emission Point	Existing	New
	Source	Source
(1) Finishing Operations:		
(a) Achieve a monthly weighted average VHAP content across all finishing materials (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied).	1.0	0.8
(b) Use compliant finishing materials (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied):		
1. Stains	<sup>a</sup> 1.0	<sup>a</sup> 1.0
2. Sealers	<sup>a</sup> 1.0	<sup>a</sup> 0.8
3. Topcoats	<sup>a</sup> 1.0	<sup>a</sup> 0.8
4. Washcoats	<sup>b</sup> 1.0	<sup>b</sup> 0.8
5. Basecoats	<sup>b</sup> 1.0	<sup>b</sup> 0.8
6. Enamels	<sup>b</sup> 1.0	<sup>b</sup> 0.8
(c) Use a control device.	<sup>c</sup> 1.0	<sup>c</sup> 0.8
(d) Use any combination of (a), (b) and (c).	1.0	0.8
(2) Cleaning Operation. Strippable spray booth coatings (maximum kg VOC/kg solids [lb VOC/lb solids], as applied)	0.8	0.8
(3) Contact Adhesives:		
(a) Use compliant contact adhesives (maximum kg		

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VHAP/kg solids [lb VHAP/lb solids], as applied):

1. For aerosol adhesive, and for contact adhesives applied to nonporous substrates.	<sup>d</sup> NA	<sup>d</sup> NA
2. For foam adhesives used in products that meet flammability requirements.	1.8	0.2
3. For all other contact adhesives.	1.0	0.2
(b) Use a control device	<sup>e</sup> 1.0	<sup>e</sup> 0.2

<sup>a</sup> Any thinner used onsite shall contain no more than 10.0% VHAP by weight.

<sup>b</sup> Any thinner used onsite shall contain no more than 10.0% VHAP by weight if the finishing material is purchased premade, that is, if it is not formulated onsite by thinning other finishing materials, i.e., thinning a sealer to use as a washcoat. If formulated onsite, these shall be formulated using compliant finishing materials, i.e., those that meet the limits specified in this table, and thinners containing no more than 3.0% VHAP by weight.

<sup>c</sup> The control device shall be operated at an efficiency that is equivalent to no greater than 1.0 pound (or 0.8 pounds) of VHAP being emitted from the affected emission source per pound of solids used.

<sup>d</sup> There is no limit on the VHAP content of these adhesives.

<sup>e</sup> The control device shall be operated at an efficiency that is equivalent to no greater than 1.0 pounds (or 0.2 pounds) of VHAP being emitted from the affected emission source per pound of solids used.

Table 3

## Pollutants Excluded From Use in Cleaning and Washoff Solvents

Chemical Name	CAS Number
Acetaldehyde	75070
Acetamide	60355
2-Acetylaminoflourine	53963
Acrylamide	79061
Acrylonitrile	107131
4-Aminobiphenyl	92671
Aniline	62533
o-Anisidine	90040
Antimony trioxide	1309644
Arsenic and inorganic arsenic compounds	7440382
Benz(c)acridine	225514
Benzene	71432
Benzidine	92875
Benzo(a)anthracene	56553
Benzo(b)fluoranthene	205992
Benzo(a)pyrene	50328
Beryllium compounds	7440417
Beryllium salts	
Bis(chloromethyl)ether	542881
Bis(2-ethylhexyl)phthalate (DEHP)	117817
Bromoform	75252
1,3-Butadiene	106990
Cadmium compounds	

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Captan	133062
Carbon tetrachloride	56235
Chlordane	57749
Chlorobenzilate	510156
Chloroform	67663
Chromium compounds (hexavalent)	
Chrysene	218019
Coke oven emissions	
DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl) ethylene)	72559
Dibenz(ah)anthracene	53703
1,2:7,8-Dibenzopyrene	189559
1,2-Dibromo-3-chloropropane	96128
1,4-Dichlorobenzene (p)	106467
3,3'-Dichlorobenzidine	53963
Dichloroethyl ether (Bis(2-chloroethyl) ether)	111444
1,3-Dichloropropene	542756
Dichlorvos	62737
Diethyl sulfate	64675
3,3'-Dimethoxybenzidine	119904
Dimethyl aminoazobenzene	60117
7,12-Dimethylbenz(a)anthracene	57976
3,3'-Dimethyl benzidine	119937
Dimethyl carbamoyl chloride	79447
Dimethyl formamide	68122
1,1-Dimethyl hydrazine	57147
2,4-Dinitrotoluene	121142
1,4-Dioxane (1,4-Diethyleneoxide)	123911
1,2-Diphenylhydrazine	122667

Epichlorohydrin	106898
Ethyl acrylate	140885
Ethyl carbamate (Urethane)	51796
Ethylene dibromide (1,2-Dibromoethane)	106934
Ethylene dichloride (1,2-Dichloroethane)	107062
Ethylene oxide	75218
Ethylene thiourea	96457
Formaldehyde	50000
Heptachlor	76448
Hexachlorobenzene	118741
Hexamethylphosphoramide	680319
Hydrazine	302012
Indeno(1,2,3-cd)pyrene	193395
Lindane (Hexachlorocyclohexane, gamma)	58899
Methyl hydrazine	60344
Methylene chloride (Dichloromethane)	75092
4,4'-Methylenedianiline	101779
Nickel refinery dust	
Nickel subsulfide	12035722
2-Nitropropane	79469
N-Nitrosodimethylamine	62759
N-Nitroso-N-methylurea	684935
N-Nitrosomorpholine	59892
Pentachlorophenol	87865
Polychlorinated biphenyls (Aroclors)	1336363
1,3-Propane sultone	1120714
Propoxur	114261
Propylene dichloride (1,2-Dichloropropane)	78875
Propylene oxide	75569

1,2-Propylenimine (2-Methyl aziridine)	75558
Selenium sulfide (mono- and di-)	7488564
Styrene oxide	96093
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
2,4-Toluene diamine	95807
o-Toluidine	95534
Toxaphene (Chlorinated camphene)	8001352
2,4,6-Trichlorophenol	88062
Vinyl bromide (Bromoethene)	593602
Vinyl chloride	75014

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Table 4

List of VHAP of Potential Concern Identified by Industry

Chemical Name	CAS Number	de minimis (tons/yr)
Diethanolamine	111422	5.0
Dimethyl formamide	68122	1.0
2-Ethoxyethyl acetate	111159	10.0
Formaldehyde	50000	0.2
Isophorone	78591	0.7
2-Methoxyethanol	109864	10.0
Methylene chloride	75092	4.0
2-Nitropropane	79469	1.0
Phenol	108952	0.1
Styrene monomer	100425	1.0

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Table 5

VHAP of Potential Concern

Chemical Name	CAS Number	de minimis (tons/yr)*
Acetaldehyde	75070	0.9
Acetamide	60355	1.0
Acetophenone	98862	1.0
2-Acetylaminoflourine	53963	0.0005
Acrolein	107028	0.04
Acrylamide	79061	0.002
Acrylonitrile	107131	0.03
Allyl chloride	107051	1.0
4-Aminobipheny	192671	1.0
Aniline	62533	0.1
o-Anisidine	90040	1.0
Benz(c)acridine	225514	0.01
Benzene	71432	0.2
Benzidine	92875	0.00003
Benzo(a)anthracene	56553	0.01
Benzo(b)fluoranthene	205992	0.01
Benzo(a)pyrene	50328	0.001
Benzotrichloride	98077	0.0006
Benzyl chloride	100447	0.04
Bis(chloromethyl) ether	542881	0.00003
Bis(2-ethylhexyl) phthalate (DEHP)	117817	0.5



Bromoform	75252	2.0
1,3-Butadiene	106990	0.007
Captan	133062	2.0
Carbon disulfide	75150	1.0
Carbon tetrachloride	56235	0.1
Carbonyl sulfide	463581	5.0
Catechol	120809	5.0
Chloramben	133904	1.0
Chlordane	57749	0.005
Chloroacetic acid	79118	0.1
2-Chloroacetophenone	532274	0.06
Chlorobenzilate	510156	0.04
Chloroform	67663	0.09
Chloromethyl methyl ether	107302	0.1
Chloroprene	126998	1.0
Chrysene	218019	0.01
Cobalt carbonyl	10210681	0.1
m-Cresol	108394	1.0
o-Cresol	95487	1.0
p-Cresol	106445	1.0
Cresols/Cresylic acid (isomers and mixture)	1319773	1.0
DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl) ethylene	72559	0.01
Diazomethane	334883	1.0
Dibenz(ah)anthracene	53703	0.01
Dibenzofurans	132649	5.0
1,2:7,8-Dibenzopyrene	189559	0.01
1,2-Dibromo-3-chloropropane	96128	0.001
1,4-Dichlorobenzene (p)	106467	0.3

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3,3'-Dichlorobenzidine	91941	0.02
Dichloroethyl ether (Bis(2-chloroethyl)ether)	111444	0.006
1,3-Dichloropropene	542756	1.0
Dichlorvos	62737	0.02
Diethanolamine	111422	5.0
Diethyl sulfate	64675	1.0
3,3'-Dimethoxybenzidine	119904	0.01
Dimethyl aminoazobenzene	60117	1.0
N,N-Dimethylaniline	121697	1.0
7,12-Dimethylbenz(a)anthracene	57976	0.01
3,3'-Dimethyl benzidine	119937	0.001
Dimethyl carbamoyl chloride	79447	0.002
Dimethyl formamide	68122	1.0
1,1-Dimethyl hydrazine	57147	0.0008
Dimethyl sulfate	77781	0.1
4,6-Dinitro-o-cresol, and salts	534521	0.1
2,4-Dinitrophenol	51285	1.0
2,4-Dinitrotoluene	121142	0.002
1,4-Dioxane (1,4-Diethyleneoxide)	123911	0.6
1,2-Diphenylhydrazine	122667	0.009
Epichlorohydrin	106898	2.0
1,2-Epoxybutane	106887	1.0
Ethyl acrylate	140885	0.1
Ethyl carbamate (Urethane)	51796	0.08
Ethylene dibromide (1,2-Dibromoethane)	106934	0.01
Ethylene dichloride (1,2-Dichloroethane)	107062	0.08
Ethylene imine	151564	0.0003
Ethylene oxide	75218	0.09

Ethylene thiourea	96457	0.06
Ethylidene dichloride (1,1-Dichloroethane)	75343	1.0
Fluomine	62207765	0.1
Formaldehyde	50000	0.2
Glycol ethers <sup>a</sup>		5.0
Heptachlor	76448	0.002
Hexachlorobenzene	118741	0.004
Hexachlorobutadiene	87683	0.09
Hexachlorocyclopentadiene	77474	0.1
Hexachloroethane	67721	0.5
Hexamethylene-1,6-diisocyanate	822060	5.0
Hexamethylphosphoramide	680319	0.01
Hydroquinone	123319	1.0
Indeno (1,2,3-cd)pyrene	193395	0.01
Isophorone	78591	0.07
Lindane (Hexachlorocyclohexane, gamma)	58899	0.005
Maleic anhydride	108316	1.0
Mercury, (acetato-o)phenyl- (Phenylmercuric Acetate)	62384	0.01
2-Methoxy ethanol	109864	10.0
Methyl bromide (Bromomethane)	74839	10.0
Methyl chloride (Chloromethane)	74873	1.0
Methylcyclopentadienyl manganese	12108133	0.1
4,4'-Methylene bis(2-chloroaniline)	101144	0.02
Methylene chloride (Dichloromethane)	75092	4.0
4,4'-Methylenedianiline	101779	1.0
Methylene diphenyl diisocyanate	101688	0.1
Methyl hydrazine	60344	0.006
Methyl iodide (Iodomethane)	74884	1.0

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Methyl isocyanate	624839	0.1
Nickel carbonyl	13463393	0.1
Nitrobenzene	98953	1.0
4-Nitrobiphenyl	92933	1.0
4-Nitrophenol	100027	5.0
2-Nitropropane	79469	1.0
N-Nitrosodimethylamine	62759	0.0001
N-Nitroso-N-methylurea	684935	0.00002
N-Nitrosomorpholine	59892	1.0
Parathion	56382	0.1
Pentachloronitrobenzene (Quintobenzene)	82688	0.03
Pentachlorophenol	87865	0.07
Phenol	108952	0.1
Phthalic anhydride	85449	5.0
Polychlorinated biphenyls (Aroclors)	1336363	0.0009
Polycyclic organic matter <sup>b</sup>		0.01
1,3-Propane sultone	1120714	0.003
$\beta$ -Propiolactone	57578	0.1
Propionaldehyde	123386	5.0
Propoxur	114261	2.0
Propylene dichloride (1,2-Dichloropropane)	78875	0.1
Propylene oxide	75569	0.5
1,2-Propylenimine (2-Methy aziridine)	75558	10.0003
Quinoline	91225	0.0006
Quinone	106514	5.0
Styrene	100425	1.0
Styrene oxide	96093	1.0
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016	0.00000006

1,1,2,2-Tetrachloroethane	79345	0.03
Tetrachloroethylene (Perchloroethylene)	127184	4.0
Tetraethyl lead	78002	0.01
Tetramethyl lead	75741	0.01
2,4-Toluene diamine	95807	0.002
2,4-Toluene diisocyanate	584849	0.1
o-Toluidine	95534	0.4
Toxaphene (Chlorinated camphene)	8001352	0.006
1,1,2-Trichloroethane	79005	0.1
Trichloroethylene	79016	1.0
2,4,5-Trichlorophenol	95954	1.0
2,4,6-Trichlorophenol	88062	0.6
Trifluralin	1582098	0.9
2,2,4-Trimethylpentane	540841	5.0
Vinyl acetate	108054	1.0
Vinyl bromide (Bromoethene)	593602	0.06
Vinyl chloride	75014	0.02
Vinylidene chloride (1,1-Dichloroethylene)	75354	0.04

\* These values are based on the de minimis levels provided in the proposed rulemaking, as published in the Federal Register on March 14, 1995 (60 FR 13664), pursuant to section 112(g) of the act using a 70-year lifetime exposure duration for all VHAP. Default assumptions and the de minimis values based on inhalation reference doses (RfC) are not changed by this adjustment.

<sup>a</sup> Except for ethylene glycol butyl ether, ethylene glycol ethyl ether (2-ethoxy ethanol), ethylene glycol hexyl ether, ethylene glycol methyl ether (2-ethoxyethanol), ethylene glycol phenyl ether, ethylene glycol propyl ether, ethylene glycol mono-2-ethylhexyl ether, diethylene glycol butyl ether, diethylene glycol ethyl ether, diethylene glycol methyl ether, diethylene glycol

hexyl ether, diethylene glycol phenyl ether, diethylene glycol propyl ether, triethylene glycol butyl ether, triethylene glycol ethyl ether, triethylene glycol methyl ether, triethylene glycol propyl ether, ethylene glycol butyl ether acetate, ethylene glycol ethyl ether acetate, and diethylene glycol ethyl ether acetate.

<sup>b</sup> Except for benzo(b)fluoranthene, benzo(a)anthracene, benzo(a)pyrene, 7,12-dimethylbenz(a)anthracene, benz(c)acridine, chrysene, dibenz(ah)anthracene, 1,2:7,8-dibenzopyrene, indeno(1,2,3-cd)pyrene, but including dioxins and furans.

SECTION 5. NR 484.03(1) to (4) are renumbered 484.03(2) to (5).

SECTION 6. NR 484.03(1) is created to read:

NR 484.03

(1) 29 CFR part 1910 Toxic and Hazardous Substances NR 465  
subpart Z

*Whole chapter?*

SECTION 7. NR 484.04(9) and (24) are amended to read:

NR 484.04

(9)	40 CFR part 51	Recommended Test	NR 439
	Appendix M	Methods for State	NR 465.09(4)
		Implementation Plans	(b)1. and 2.
			NR 466.09(5)

(24)	40 CFR part 63,	Data Quality Objective	NR 439.06(3) (am)
	Subpart KK,	and Lower Confidence	NR 465.09(4) (b)3.
	Appendix A	Limit Approaches for	NR 466.09(6)
		Alternative Capture	
		Efficiency Protocols	
		and Test Methods	

SECTION 8. NR 484.05(1) is amended to read:

NR 484.05

(1)	NTIS Order	Standard Industrial	NR 400.02(74)
	No. PB 87-	Classification	NR 400.02(86)
	100012	Manual, 1987	NR 400.02(91)

- NR 400.02(149)
- NR 405.02(8)
- NR 407.02(4) (intro.)
- NR 407.05(4) (b)
- NR 408.02(5)
- NR 410.02(4)
- NR 421.02(3)
- NR 421.02(17)
- NR 422.02(112)
- NR 422.095(1)
- NR 422.15(1) (intro.)
- NR 438.02(1)
- NR 465.02(51)

SECTION 9. NR 484.06(intro.) is amended to read:

NR 484.06(intro.) The following materials from other government organizations listed in the first column of Tables 4A to 4C 4E are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 in the third column of Tables 4A to 4C 4E.

SECTION 10. NR 484.06(5) is created to read:

NR 484.06(5) The following are documents from the State of California, Department of Consumer Affairs, Bureau of Home Furnishings and Thermal Insulation.

Note: Copies may be downloaded for personal use from the following Internet address: <http://www.dca.ca.gov/bhfti/bulletin.htm>.

Those without access to a computer can obtain printed copies from:

State of California

Department of Consumer Affairs

Bureau of Home Furnishings and Thermal Insulation

3485 Orange Grove Avenue

North Highlands CA 95660-5595

(916) 920-6951

Table 4E  
State of California Document Reference

Document Number	Title	Incorporated by Reference For
(a) Technical Bulletin 116	Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Upholstered Furniture	NR 465.04(1)(b)1.
(b) Technical Bulletin 117	Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials Used in Upholstered Furniture	NR 465.04(1)(b)1.
(c) Technical Bulletin 133	Flammability Test Procedure for Seating Furniture for Use in Public Occupancies	NR 465.04(1)(b)1.

SECTION 11. NR 484.11(7) and Table 6G are renumbered 484.11(8) and Table 6H.

SECTION 12. NR 484.11(7) is created to read:

NR 484.11(7) The following is a document from The Business and Institutional Furniture Manufacturer's Association (BIFMA).

Note: Copies may be purchased for personal use from:

BIFMA International

2680 Horizon Drive SE, Suite A-1

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Grand Rapids MI 49546-7500

E-mail: email@bifma.org

Phone: (616) 285-3963

Fax: (616) 285-3765

**Table 6G**

**BIFMA Document Reference**

Document Number	Title	Incorporated by Reference For
BIFMA X5.7-1991	Voluntary Upholstered Furniture Flammability Standard for Non-residential, Non-live-in Occupancies	NR 465.04(1)(b)1.

SECTION 13. NR 484.11(10) is created to read:

NR 484.11(10) The following are documents from the Upholstered Furniture Action Council (UFAC).

Note: Copies may be purchased for personal use from:

Upholstered Furniture Action Council

Box 2436

High Point, NC 27261

Phone: (336) 885-5065

Fax: (336) 885-5072

*Why not number these NR 484.11(9) and Table 6 I*

**Table 6J**

**UFAC Document Reference**

Document Number	Title	Incorporated by Reference For
(a) DMTM--1990	Decking Materials Test Method--1990	NR 465.04(1)(b)1.
(b) WCTM--1990	Welt Cord Test Method--1990	NR 465.04(1)(b)1.
(c) IFTM--1990	Interior Fabrics Test	NR 465.04(1)(b)1.

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- Method--1990
- (d) F/PCTM-- 1990, PT A Filling/Padding Component Test Method-- 1990 Part A - For Slab or Garnetted Materials NR 465.04(1)(b)1.
- (e) F/PCTM-- 1990, PT B Filling/Padding Component Test Method-- 1990 Part B - For Fibrous or Particulate Materials NR 465.04(1)(b)1.
- (f) PTM--1990 Barrier Test Method-- 1990 NR 465.04(1)(b)1.
- (g) FCTM--1990 Fabric Classification Test Method--1990 NR 465.04(1)(b)1.
- (h) DTTM--1993 Standard Test Methods for Decorative Trims, Edging, and Brush Fringes--1993 NR 465.04(1)(b)1.

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on \_\_\_\_\_.

The rule shall take effect the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2) (intro.), Stats.

Dated at Madison, Wisconsin \_\_\_\_\_.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By \_\_\_\_\_  
George E. Meyer, Secretary

(SEAL)

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

The Wisconsin Natural Resources Board proposes an order to renumber NR 484.03(1) to (4) and 484.11(7); to amend NR 422.125(4) (intro.), 484.04(9) and (24), 484.05(1) and 484.06(intro.); and to create NR 422.02(19m), NR 460 Appendix JJ, ch. NR 465, 484.03(1), 484.06(5) and 484.11(7) and (10), relating to volatile organic compound emissions and national emission standards for hazardous air pollutants for wood furniture manufacturing.

AM-37-00

Analysis Prepared by the Department of Natural Resources

Authorizing statutes: ss. 227.11(2)(a), 285.11(1) and 285.27(2), Stats.

Statutes interpreted: s. 285.27(2), Stats.

This proposed order will incorporate into state rules existing national emission standards for hazardous air pollutants (NESHAP) for wood furniture manufacturing operations. These standards took effect on December 7, 1995, and are intended to protect public health by requiring the control of emissions of hazardous air pollutants (HAP) to the level attainable by implementing the maximum achievable control technology. Sources affected are new and existing facilities which are involved in the manufacture of wood furniture or wood furniture components, and which have the potential to emit more than 10 tons per year of a single HAP or more than 25 tons per year of any combination of HAP. The standards include emission limitations for finishing materials and contact adhesives used by the wood furniture industry, as well as work practices for areas such as inspection and maintenance procedures, solvent cleaning and washoff operations and application equipment for finishing materials. Flexible compliance options are provided, including averaging and pollution prevention methods allowing sources to substitute non-toxic solvents for toxic ones. The standards include provisions exempting facilities based on low actual HAP emissions and low use of finishing materials, adhesives and solvents for cleaning and washoff.

In addition, this proposed order makes a change to existing volatile organic compound (VOC) control rules for this same industry. The change is proposed in order to make state VOC application equipment requirements consistent with, and no more restrictive than, the U.S. EPA guidance for this industry.

SECTION 1. NR 422.02(19m) is created to read:

NR 422.02(19m) "Conventional air spray" means a spray coating method in which the coating is atomized by mixing it with compressed air and applied at an air pressure greater than 10 psig at the point of atomization. Airless and air assisted airless spray technologies are not conventional air spray because the

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↓  
note  
2

coating is not atomized by mixing it with compressed air. Electrostatic spray technology is also not considered conventional air spray because an electrostatic charge is employed to attract the coating to the work piece.

SECTION 2. NR 422.125(4) (intro.) is amended to read:

NR 422.125(4) (intro.) An owner or operator of a wood furniture manufacturing facility ~~shall only apply finishing materials using electrostatic application, flow coating, dip coating, a low pressure spray method, paint brush, hand roller or roll coater with the following exception~~ may use conventional air spray to apply finishing materials only under any of the following conditions:

SECTION 3. NR 460 Appendix JJ is created to read:

**Chapter NR 460**

**Appendix JJ**

**General Provisions Applicable to Chapter NR 465**

*where does this go relative to applicability:*  
N (ch NR 463)  
T (ch NR 469)  
KK (ch NR 466) ✓

The general provisions of this chapter listed under the column heading "Reference" apply to sources subject to ch. NR 465 only if a Yes appears in the same row under the column heading "Applies to Chapter NR 465?". Certain provisions in other chapters which correspond to federal provisions in 40 CFR part 63 Subpart A are also included in the Reference column.

Reference	Applies to Chapter NR 465?	Comment
NR 2.19 and 2.195	Yes	
NR 406	Yes	
NR 407.04(1)(b)3.	Yes	
NR 460.02	Yes	Additional definitions in s. NR 465.02.
NR 460.03	Yes	Additional symbols in s. NR 465.03.
NR 460.04	Yes	
NR 460.05(1)	Yes	
NR 460.05(2)(a) to (c)	Yes	
NR 460.05(2)(d)	No	
NR 460.05(2)(e) and (f)	Yes	
NR 460.05(3)(a)	Yes	
NR 460.05(3)(b)	No	
NR 460.03(3)(c)	Yes	
NR 460.05(4)	Yes	s. NR 460.05(4)(c) applies only to affected sources using a control device to comply.
NR 460.05(5)	Yes	Affected sources complying through the procedures specified in s. NR 465.06(1)(a)1. and 2., (b), (c)1., (2)(a)1. and 2. and (2)(b) are subject to the emission standards at all times, including periods of startup, shutdown and malfunction
NR 460.05(6)	No	
NR 460.05(7)(a), (b) and (c)1.	Yes	
NR 460.05(7)(c)2.	No	
NR 460.05(7)(d) to (l)	Yes	

NR 460.06	Yes	Applies only to affected sources using a control device to comply.
NR 460.07	Yes	Applies only to affected sources using a control device to comply.
NR 460.08(1) to (5)	Yes	NR 460.08(5) applies only to affected sources using a control device to comply.
NR 460.08(6)	No	
NR 460.08(7) to (10)	Yes	NR 460.08(7) and (8)(b)2. Apply only to affected sources using a control device to comply.
NR 460.09(1) to (3) and (4)(a) and (b)	Yes	NR 460.09(2)(b) and (4)(b) apply only to affected sources using a control device to comply.
NR 460.09(4)(c)	No	
NR 460.09(4)(d) and (e)	Yes	NR 460.09(4)(e) applies only to affected sources using a control device to comply.
NR 460.09(5)	Yes	Applies only to affected sources using a control device to comply.
NR 460.09(6)	Yes	
NR 460.10	No	
NR 484.04	Yes	

SECTION 4. Chapter NR 465 is created to read:

**CHAPTER 465**

**NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS  
FOR WOOD FURNITURE MANUFACTURING OPERATIONS**

*Affected Sources.*

NR 465.01 Applicability; purpose. (1) APPLICABILITY. (a) ~~The~~ <sup>to</sup> affected source <sup>is</sup> to which this chapter applies <sup>is</sup> each facility <sup>to</sup>

*affected source*

*(2)*

~~that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source of hazardous air pollutants.~~

~~The owner or operator of a source that meets the definition for an incidental wood furniture manufacturer shall maintain purchase or usage records demonstrating the source meets the criteria specified in s. NR 465.02 (33), but the source is not subject to any other provisions of this chapter.~~

*Area Source.*  
(b) A source for which the owner or operator complies with the limits and criteria specified in subd. 1., 2. or 3. is an area source for the purposes of this chapter and is not subject to any provisions of this chapter, other than those in this paragraph. For subds. 1. and 2., finishing materials, adhesives, cleaning solvents and washoff solvents used for wood furniture or wood furniture component manufacturing operations shall account for at least 90% of annual HAP emissions at the plant site, and if the plant site has HAP emissions that do not originate from the listed materials, the owner or operator shall keep any records necessary to demonstrate that the 90% criterion is being met. A source that initially relies on the limits and criteria specified in subd. 1., 2. or 3. to become an area source, but subsequently exceeds the relevant limit, without first obtaining and complying with other limits that keep its potential to emit hazardous air pollutants below major source levels, becomes a major source and shall comply

*Separate sub. (2)*  
*(5)*  
*reorganizing as a sub. (1) area source (2)*

*suppl. (5)*



thereafter with all applicable provisions of this chapter starting on the applicable compliance date in pars. (e) to (g). Nothing in this paragraph is intended to preclude a source from limiting its potential to emit through other appropriate mechanisms. A source qualifies as an area source if the criteria in one of the following subdivisions are met:

1. The owner or operator of the source uses no more than a total of 250 gallons per month for every month, of coating, adhesive, cleaning material, and washoff materials at the source, including materials used for source categories other than wood furniture, but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, the use of toxic chemicals contained in intake water used for processing or noncontact cooling and intake air used either as compressed air or for combustion. The owner or operator shall maintain records of the total gallons of coating, adhesive, cleaning material, and washoff material used each month, and upon request submit the records to the department. These records shall be maintained for 5 years. *passive*

*duplicate  
3 times*

2. The owner or operator of the source uses no more than 3,000 gallons per rolling 12-month period, for every 12-month period, of coating, adhesive, cleaning material, and washoff material at the source, including materials used for source

categories other than wood furniture, but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, the use of toxic chemicals contained in intake water used for processing or noncontact cooling and intake air used either as compressed air or for combustion. The owner or operator of the source shall maintain records of the total gallons of coating, adhesive, cleaning material, and washoff material used each month and the total gallons used each previous month, and upon request submit the records to the department. The owner or operator shall keep monthly records beginning no less than one year before the compliance date specified in pars. (e) to (g). Records shall be maintained for 5 years.

3. The source emits no more than 4.5 Mg (5 tons) of any one HAP per rolling 12-month period and no more than 11.4 Mg (12.5 tons) of any combination of HAP per rolling 12-month period, and at least 90% of the plantwide HAP emissions per rolling 12-month period are associated with the manufacture of wood furniture or wood furniture components. The owner or operator shall maintain records that demonstrate that annual emissions do not exceed these levels, including monthly usage records and certified product data sheets for all finishing material, adhesive, cleaning material, and washoff material, and any other records necessary to document

emissions from source categories other than wood furniture. These records shall be maintained for 5 years and submitted to the department upon request.

(c) This chapter does not apply to research or laboratory facilities.

(d) Owners or operators of affected sources shall comply with the requirements of ch. NR 460, according to the applicability of ch. NR 460 to the sources, as identified in ch. NR 460 Appendix JJ.

(e) The compliance date for existing affected sources that emit less than 50 tons per year of HAP in 1996 is December 7, 1998. The compliance date for existing affected sources that emit 50 tons or more of hazardous air pollutants in 1996 is November 21, 1997. The owner or operator of an existing area source that increases its emissions of, or its potential to emit, HAP such that the source becomes a major source that is subject to this chapter shall comply with this chapter one year after becoming a major source.

5  
he counts for

are these applicability,  
2

(f) New affected sources shall comply with this chapter immediately upon startup or by December 7, 1995, whichever is later. New area sources that become major sources shall comply with this chapter immediately upon becoming a major source.

(g) Reconstructed affected sources are subject to the requirements for new affected sources. The costs associated with

note (2)

the purchase and installation of air pollution control equipment, (e.g., incinerators, carbon adsorbers, etc.) are not considered in determining whether the facility has been reconstructed, unless the control equipment is required as part of the process (e.g., product recovery). Additionally, the costs of retrofitting and replacement of equipment that is installed specifically to comply with this chapter are not considered reconstruction costs. For example, an affected source may convert to waterborne coatings to meet the requirements of this chapter. At most facilities, this conversion will require the replacement of existing storage tanks, mix equipment and transfer lines. The cost of replacing the equipment is not considered in determining whether the facility has been reconstructed.

note

Note: Compliance dates are federally enforceable under 40 CFR 63.800 prior to the effective date of this section.

(2) PURPOSE. This chapter is adopted under ss. 285.27(2) and 285.65, Stats., to establish emission standards for hazardous air pollutants for wood furniture and wood furniture component manufacturing operations.


Note: This chapter is based on the federal regulations contained in 40 CFR part 63 Subpart JJ, created Dec. 7, 1995, as last revised on Dec. 28, 1998.

**NR 465.02 Definitions.** For terms not defined in this section, the definitions contained in chs. NR 400 and 460 apply to the terms used in this chapter, with definitions in ch. NR 460 taking

priority over definitions in ch. NR 400. If this section defines a term which is also defined in ch. NR 400 or 460, the definition in this section applies in this chapter. *See Chap. 1*

(1) "Adhesive" means any chemical substance that is applied for the purpose of bonding 2 surfaces together other than by mechanical means. Products used on humans and animals, adhesive tape, contact paper or any other product with an adhesive incorporated onto or in an inert substrate are not considered adhesives under this chapter.

(2) "Aerosol adhesive" means an adhesive that is dispensed from a pressurized container as a suspension of fine solid or liquid particles in gas.

(3) "Affected source" means a ~~wood furniture manufacturing~~ facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source of hazardous air pollutants. 

(4) "Alternative method" means any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method but has been demonstrated to the administrator's satisfaction to, in specific cases, produce results adequate for a determination of compliance.

(5) "As applied" means the HAP and solids content of the coating or contact adhesive that is actually used for coating or

gluing the substrate. It includes the contribution of materials used for in-house dilution of the coating or contact adhesive.

(6) "Basecoat" means a coat of colored material, usually opaque, that is applied before graining inks, glazing coats or other opaque finishing materials, and is usually topcoated for protection.

(7) "Baseline conditions" means the conditions that exist prior to an affected source implementing controls, such as a control system.

(9) "Capture device" means a hood, enclosed room, floor sweep or other means of collecting solvent emissions or other pollutants into a duct so that the pollutant can be directed to a pollution control device such as an incinerator or carbon adsorber.

(10) "Capture efficiency" means the fraction of all organic vapors generated by a process that are directed to a control device.

(11) "Certified product data sheet" or "CPDS" means documentation furnished by coating or adhesive suppliers or an outside laboratory that provides all of the following:

(a) The HAP content of a finishing material, contact adhesive or solvent, by percent by weight, measured using Method 311 in 40 CFR part 63, Appendix A, incorporated by reference in s. NR 484.04, or an equivalent or alternative method, or formulation data if the coating meets the criteria specified in s. NR

465.09(1). Only VHAP present in concentrations greater than or equal to 1.0% by weight, or 0.1% for VHAP that are carcinogens as defined by the occupational safety and health administration hazard communication standard in 29 CFR part 1910 Subpart Z, incorporated by reference in s. NR 484.03(1), must be reported on the CPDS.

(b) The solids content of a finishing material or contact adhesive by percent by weight, determined using data from Method 24 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04, or an alternative or equivalent method, or formulation data if the coating meets the criteria specified in s. NR 465.09(1).

(c) The density of the finishing material, adhesive or solvent, measured by Method 24 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04, or an alternative or equivalent method.

Note: Because the optimum analytical conditions under Method 311 vary by coating, the coating or adhesive supplier may also choose to include on the CPDS the optimum analytical conditions for analysis of the coating, adhesive or solvent using EPA Method 311. Information may include, but not be limited to, separation column, oven temperature, carrier gas, injection port temperature, extraction solvent and internal standard.

(12) "Cleaning operations" means operations in which organic HAP solvent is used to remove coating materials or adhesives from equipment used in wood furniture manufacturing operations.

(13) "Coating" means a protective, decorative or functional

film applied in a thin layer to a surface. Materials include, but are not limited to, paints, topcoats, varnishes, sealers, stains, washcoats, basecoats, enamels, inks and temporary protective coatings. Adhesives and aerosol spray used for touch-up and repair are not considered coatings under this chapter.

(14) "Coating application station" means the part of a coating operation where the coating is applied, e.g., a spray booth.

*place?*  
*5*

*used once here*  
*not in sale anywhere*

(15) "Coating operation" means those activities in which a coating is applied to a substrate and is subsequently air-dried, cured in an oven or cured by radiation.

(16) "Coating solids" or "solids" means the part of the coating which remains after the coating is dried or cured; solids content is determined using data from Method 24 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04, or an equivalent or alternative method.

*↓*  
*Substrate*

(17) "Compliant coating" means a finishing material, contact adhesive or strippable spray booth material that meets the emission limits specified in *NR 485.06* Table 2. (p 75) c. p 40

*de line "compliant"*  
*since it's used*  
*w/ solvent*  
*or*  
*400*  
*of the term*

(18) "Contact adhesive" means an adhesive that is applied to 2 substrates, dried and mated under only enough pressure to result in good contact. The bond is immediate and sufficiently strong to hold pieces together without further clamping, pressure or airing.

*↓*  
*Substrate*

(19) "Continuous coater" means a finishing system that



continuously applies finishing materials onto furniture parts moving along a conveyor. Finishing materials that are not transferred to the part are recycled to a reservoir. Several types of application methods can be used with a continuous coater including spraying, curtain coating, roll coating, dip coating and flow coating.

Substantive or note

used 8 or times

(20) "Continuous compliance" means that the affected source is meeting the emission limitations and other requirements of the rule at all times and is fulfilling all monitoring and recordkeeping provisions of the rule in order to demonstrate compliance.

"continuous" (initial) instead of continuous

(21) "Control device efficiency" means the ratio of the amount of the pollutant reduced by a control device and the amount of the pollutant introduced to the control device.

(22) "Control system" means the combination of capture and control devices used to reduce emission of air contaminants.

ditto

(23) "Conventional air spray" means a spray coating method in which the coating is atomized by mixing it with compressed air and applied at an air pressure greater than 10 psig at the point of atomization. Airless and air assisted airless spray technologies are not conventional air spray because the coating is not atomized by mixing it with compressed air. Electrostatic spray technology is also not considered conventional air spray because an electrostatic charge is employed to attract the coating to the

note

workpiece.

(24) "Day" means a period of 24 consecutive hours beginning at midnight local time, or beginning at a time consistent with a facility's operating schedule.

(25) "Disposed offsite" means sending used organic HAP solvent or coatings outside of the facility boundaries for disposal.

*used once  
7 p. 3?*

(26) "Enamel" means a coat of colored material, usually opaque, that is applied as a protective topcoat over a basecoat, primer or previously applied enamel coats. In some cases, another finishing material may be applied as a topcoat over the enamel.

(27) "Equipment leak" means emissions of VHAP from pumps, valves, flanges or other equipment used to transfer or apply coatings, adhesives or organic HAP solvents.

*not used - "leak" used 5 times - but meaning is obvious!*

(28) "Existing", when used to modify affected source, area source or source, means construction or reconstruction which is commenced before December 6, 1994.

(29) "Finishing material" means a coating used in the wood furniture industry. Materials include, but are not limited to, stains, basecoats, washcoats, enamels, sealers and topcoats.

*obvious?*

(30) "Finishing operation" means those operations in which a finishing material is applied to a substrate and is subsequently air-dried, cured in an oven or cured by radiation.

*ditto*

(31) "Foam adhesive" means a contact adhesive used for gluing