



State of Wisconsin

DEPARTMENT OF NATURAL RESOURCES

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CR 89-39

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STATE OF WISCONSIN )  
 )  
DEPARTMENT OF NATURAL RESOURCES )

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Bruce B. Braun, Deputy Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. AM-20-89 was duly approved and adopted by this Department on August 24, 1989. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have here-  
unto set my hand and affixed the  
official seal of the Department at  
the Natural Resources Building in  
the City of Madison, this 28<sup>th</sup>  
day of November, 1989.

  
Bruce B. Braun, Deputy Secretary

(SEAL)

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

.....  
IN THE MATTER of repealing NR 400.02(1), (22), (25),  
(30), (43), (47), (48), (52), (73), (85) and (98),  
420.02(19), 420.04(4)(c)1.d. to f., 421.05(3)(c)5.,  
421.06(3)(c)5., 422.15(1)(f), 422.16(2)(c) and  
425.04(6)(a), renumbering NR 400.02(36) and (71),  
419.02(1) and (5), 420.02(2) to (4), (7) and (12),  
421.02(2) and (5), 422.02(6), 422.04(1), 422.15(4) to  
(7), 425.04(1), (2)(title) and (6)(b) and 484.06,  
renumbering and amending NR 400.02(72), 421.05(2)(f),  
421.06(2)(f), 422.04(2) and (3), 425.04(2), (4), (5)  
and (6)(title), 439.12, 484.025, 484.03(intro.), (1)  
and (2), 484.04 and 484.05, amending NR 400.01(1) and  
(2), 400.02(2), (3), (5e), (8), (17), (18), (32),  
(34), (40), (45), (53), (55), (60), (70), (77), (95),  
(96) and (100), 419.01(1) and (2), 419.03(1) and (2),  
419.04(1), 419.05(1)(a)2., 419.06(1)(a)2., 420.01(1)  
and (2), 420.02(21), 420.03(1)(intro.),  
(4)(b)(intro.), (5)(a) and (b)(intro.) and 7.b.,  
(6)(a)(intro.), (b)(intro.) and 2.c. and (7)(a),  
420.04(1)(c) and (f)(intro.), (2)(b)(intro.),  
(c)(intro.), (d)(intro.) and (h), (3)(b)(intro.) and  
(e), (4)(a), (b)4.a. and b. and (c)1.a. and b.,  
420.05(1)(b)(intro.) and (4)(b)(intro.), (d)(intro.)  
and (e)(intro.), ch. NR 421 (title), 421.01(1) and  
(2), 421.03(1)(b)1.(intro.) and (2)(b),  
421.04(4)(intro.), 421.05(1), (2)(a)1. and 2. and (b),  
and (3)(b) and (c)4., 421.06(1) and (3)(c)4., ch. NR  
422 (title), 422.01(1) and (2), 422.02(16), (32),  
(33m) and (50), 422.03(intro.), (1) to (4) and (6)(b),  
422.05(2)(intro.), 422.06(2), 422.07(2),  
422.08(2)(intro.), 422.085(2) and (3),  
422.09(2)(intro.), (3)(intro.), (4)(intro.) and (5),  
422.10(2), 422.11(2), 422.12(2), 422.13(2)(intro.),  
422.14(2)(intro.), 422.15(1)(b), (2)(intro.) and  
(3)(intro.), 422.155(2)(a) to (d), 422.16(title),  
(2)(a) and (b), 423.01(1) and (2),  
423.03(2)(a)(intro.) and (c) and (3)(d)1.,  
423.04(3)(a)1., 423.05(1), 424.01(1) and (2),  
424.03(1)(a)(intro.), 3. and 4. and (b), (2)(intro.)  
and (3)(intro.), 424.04(1), 425.01(1) and (2),  
425.02(intro.), 425.03(2)(a)(intro.), (3)(a)(intro.)  
and (e), (4)(a)(intro.), (6)(b)(intro.), (7)(c) to (d)  
and (8), 425.04(title), 439.04(2), 439.06(intro.), (3)  
and (6)(a), 439.07(title), (1)(c)1. and (i)12. and  
13., (2)(a)5. and 6., and 484.01(1) and (2), repealing  
and recreating NR 420.03(3)(title) and (7)(b)(title),  
420.04(4)(c)1.c., 421.05(2)(e) and 421.06(2)(e) and  
creating NR 420.03(3)(a)(title), (b)(title),  
(c)(title), (4)(intro.)(title) and (a)(title),

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(5)(intro.)(title), (6)(intro.)(title) and .  
(7)(intro.)(title), 421.02(12m), 421.03(3)(title), .  
421.05(2)(f) and (g), 421.06(2)(f) and (g), .  
422.02(28m), (33g) and (41m), 422.04(1) and (3)(c), .  
422.085(4), 422.15(4), 425.03(10), 425.04(3m), .  
439.04(3), 439.06(3)(h), 484.05(title), (intro.) and .  
(1) and 484.06(1)(zp) of the Wisconsin Administrative .  
Code, pertaining to volatile organic compound emission .  
limitations for sources regulated under the state .  
implementation plan for ozone. .  
.....

Analysis Prepared by the Department of Natural Resources

Authorizing Statutes: ss. 144.31(1)(a) and 227.11(2)(a), Stats.

Statutes Interpreted: s. 144.31(1)(f), Stats., and revising the State Implementation Plan developed under that provision.

Sections NR 421.05 and 421.06 establish volatile organic compound (VOC) emission control requirements for large synthetic resin manufacturing and large coatings manufacturing facilities, respectively. The amended language in these rules institutes more explicit requirements for source applicability and VOC leak detection/repair procedures. A definition of "VOC emission leak" is created which specifies a federal method for leak testing which is incorporated by reference in ch. NR 484. The revision to s. NR 421.05 also clarifies that surface condensers are not considered part of the emissions control system. Amended portions to s. NR 422.085 and the creation of s. NR 439.06(3)(h) revise the VOC emission limit and compliance averaging time interval, and detail the exact procedures for tracking rule compliance for large leather coating facilities. These changes affect only facilities emitting more than 100 tons per year which are located in the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha.

Additional substantive revisions include the following items. Sections NR 400.02(100) and 425.03(10) change the definition of volatile organic compounds and establish a delayed compliance schedule for sources newly regulated as a result of the change. The repeal of section NR 422.15(1)(f) eliminates the emission limit exemption for federal and state contract-specified coatings. A delayed compliance schedule is established for these materials in section NR 425.04(3m) and a new emission limit for wash primers is established in 422.15(4). Section 422.04(1) allows compliance with emission limits for coatings and inks to be achieved through daily in-line averaging.

Sections NR 400.02(100), 422.02(16), (32) and (50), 422.03(1) and (2), 422.09(5), 423.05(1) and 425.04(5) are amended, section 422.15(1)(f) is repealed and sections 422.02(28m), (33g) and (41m), 422.04(4) and 436.07 are created in response to deficiencies in the Wisconsin state implementation plan for ozone identified by the U.S. environmental protection agency. In addition, numerous minor corrections and clarifying changes in the affected chapters are made.

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SECTION 1. NR 400.01(1) and (2) are amended to read:

NR 400.01(1) APPLICABILITY. This chapter applies to terms used in chs. NR ~~401~~ 400 to 499. In addition to the definitions in this chapter other definitions ~~are~~ may be included in individual chapters or sections in chs. NR 401 to 499 which are applicable to terms used in those respective chapters or sections.

(2) PURPOSE. This chapter is adopted under s. 144.31, Stats., to establish a set of definitions for terms commonly used throughout chs. NR ~~401~~ 400 to 499. Individual chapters or sections in chs. NR 401 to 499 may contain additional definitions for terms unique to ~~that~~ an individual chapter or ~~that~~ section or to a specified series of chapters. If an individual chapter or section defines a term which is also defined in this chapter, the former definition applies in the individual chapter or section rather than the definition in this chapter.

SECTION 2. NR 400.02(1) is repealed.

SECTION 3. NR 400.02(2), (3), (5e), (8), (17) and (18) are amended to read:

NR 400.02(2) "Air contaminant" has the meaning ~~designated~~ given in s. 144.30(1), Stats.

(3) "Air contaminant source" has the meaning ~~designated~~ given in s. 144.30(2), Stats.

(5e) "Air pollution control permit" has the meaning ~~designated~~ given in s. 144.30 (3), Stats.

(8) "Allowable emission" has the meaning ~~designated~~ given in s. 144.30(4), Stats.

(17) "Baseline concentration" has the meaning ~~designated~~ given in s. 144.30(8), Stats.

(18) "Best available control technology" has the meaning ~~designated~~ given in s. 144.30(9), Stats.

SECTION 4. NR 400.02(22), (25) and (30) are repealed.

SECTION 5. NR 400.02(32) and (34) are amended to read:

NR 400.02(32) "Emission limitation" or "emission standard" has the meaning ~~designated~~ given in s. 144.30(11), Stats.

(34) "Emission reduction option" has the meaning ~~designated~~ given in s. 144.30(12), Stats.

SECTION 6. NR 400.02(36) is renumbered 422.02(12s).

← changed from  
(12m) to (12s)  
because a new  
(12m) was published  
in the Aug. Register

SECTION 7. NR 400.02(40) is amended to read:

NR 400.02(40) "Fixed capital cost" means the capital needed to provide all of the depreciable components of a stationary source.

SECTION 8. NR 400.02(43) is repealed.

SECTION 9. NR 400.02(45) is amended to read:

NR 400.02(45) "Implementation plan" means a plan adopted to implement, maintain, and enforce air standards within the state, an air region, or a portion thereof of the state or region.

SECTION 10. NR 400.02(47), (48) and (52) are repealed.

SECTION 11. NR 400.02(53), (55), (60) and (70) are amended to read:

NR 400.02(53) "Lowest achievable emission rate" has the meaning ~~designated~~ given in s. 144.30(15), Stats.

(55) "Modification" has the meaning ~~designated~~ given in s. 144.30 (20), Stats.

(60) "Nonattainment area" has the meaning ~~designated~~ given in s. 144.30(21), Stats.

(70) "Portable source" means any facility, installation, operation or equipment which may directly result in the emission of any air contaminant only while at a fixed location but is capable of being transported to a different location (e.g., portable asphalt plant, portable package boiler, portable air curtain destructor, etc.). A As a type of direct stationary source, a modified portable source or a portable source which has never received a plan approval shall be considered to be a direct stationary source which or air pollution control permit is subject to the requirements of ss. NR 408.025 to 408.07, 436.03 and 436.04 chs. NR 406, 407 and 408.

SECTION 12. NR 400.02(71) is renumbered 420.02(29m).

SECTION 13. NR 400.02(72) is renumbered 420.02(29p) and, as renumbered, is amended to read:

NR 420.02(29p) "Process upset gas" means any gas generated by a petroleum refinery process unit as a result of ~~start-up, shut-down~~ startup, shutdown, upset or malfunction.

SECTION 14. NR 400.02(73) is repealed.

SECTION 15. NR 400.02(77) is amended to read:

NR 400.02(77) "Reference method" means any method of sampling and analyzing for an air pollutant, as described in Appendix A of 40 C.F.R. pt. 60, incorporated by reference in ch. NR 484.

SECTION 16. NR 400.02(85) is repealed.

SECTION 17. NR 400.02(95) and (96) are amended to read:

NR 400.02(95) "Startup" means the setting in operation of ~~an affected a~~ facility or its emission control equipment for any purpose which produces emissions.

(96) "Stationary source" has the meaning ~~designated~~ given in s. 144.30(23), Stats.

SECTION 18. NR 400.02(98) is repealed.

SECTION 19. NR 400.02(100) is amended to read:

NR 400.02(100) "Volatile organic compound" or "VOC" means any organic compound of carbon that has a vapor pressure greater than 0.1 millimeter of mercury (0.0019 psia) at standard conditions, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate which participates in atmospheric photochemical reactions and which is measured by a reference method, equivalent method or an alternative method.



This includes any organic compound other than the following compounds, which have been determined to have negligible photochemical reactivity:

- (a) Methane.
- (b) Ethane.
- (c) Methylene chloride.
- (d) Methyl chloroform (1,1,1-trichloroethane).
- (e) Trichlorofluoromethane (CFC-11).
- (f) Dichlorodifluoromethane (CFC-12).
- (g) Chlorodifluoromethane (CFC-22).
- (h) Trifluoromethane (FC-23).
- (i) Trichlorotrifluoroethane (CFC-113).
- (j) Dichlorotetrafluoroethane (CFC-114).
- (k) Chloropentafluoroethane (CFC-115).
- (l) Dichlorotrifluoroethane (HCFC-123).
- (m) Tetrafluoroethane (HFC-134a).
- (n) Dichlorofluoroethane (HCFC-141b), and
- (o) Chlorodifluoroethane (HCFC-142b).

SECTION 20. NR 419.01(1) and (2) are amended to read:

NR 419.01(1) APPLICABILITY. This chapter applies to all air contaminant sources which emit organic compounds and to ~~all their owners or~~ and operators ~~of an air contaminant source.~~

(2) PURPOSE. This chapter is adopted under ss. 144.31 and 144.38, Stats., to categorize ~~volatile~~ organic compound air contaminant sources and to establish emission limitations for these categories in order to protect air quality.

SECTION 21. NR 419.02(1) and (5) are renumbered (1m) and 400.02(72).

SECTION 22. NR 419.03(1) and (2) are amended to read:

NR 419.03(1) No person ~~shall~~ may cause, allow or permit organic compound emissions into the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution.

(2) No person ~~shall~~ may cause, allow, or permit organic compounds to be used or handled without using good operating practices and taking reasonable precautions to prevent the spillage, escape or emission of organic compounds, solvents or mixtures. Such precautions shall include, but are not limited to:

SECTION 23. NR 419.04(1) is amended to read:

NR 419.04(1) Effective August 1, 1979, no person ~~shall~~ may cause, allow, or permit the disposal of more than 5.7 liters (1.5 gallons) of any liquid VOC waste, or of any liquid, semisolid, or solid waste materials containing more than 5.7 liters (1.5 gallons) of any VOC, in any one day from a facility in a manner that would permit their evaporation into the ambient air during the ozone season. This includes, but is not limited to, the disposal of VOC which must be removed from VOC control devices so as to maintain the control devices at their required operating efficiency.

SECTION 24. NR 419.05(1)(a)2. is amended to read:

NR 419.05(1)(a)2. Tanks used exclusively for storing organic compounds exempted under s. NR 425.04(1)(a).

SECTION 25. NR 419.06(1)(a)2. is amended to read:

NR 419.06(1)(a)2. Transfer operations involving, exclusively, organic compounds exempted under s. NR 425.04(1)(a).

SECTION 26. NR 420.01(1) and (2) are amended to read:

NR 420.01(1) APPLICABILITY. This chapter applies to all petroleum and gasoline air contaminant sources and to ~~all their owners or~~ and operators ~~of a petroleum or gasoline air contaminant source.~~

(2) PURPOSE. This chapter is adopted under ss. 144.31 and 144.38, Stats., to categorize organic compound emissions from petroleum and gasoline sources into a separate ~~volatile~~ organic compound air contaminant source category and to establish emission limitations for this category of sources in order to protect air quality.

SECTION 27. NR 420.02(2), (3), (4), (7) and (12) are renumbered 419.02(1) and 400.02(11m), (16e), (21m)<sup>(21e)</sup> and (26m).

SECTION 28. NR 420.02(19) is repealed.

SECTION 29. NR 420.02(21) is amended to read:

NR 420.02(21) "~~Gas~~ Gaseous service" means petroleum refinery equipment which processes, transfers or contains a VOC or mixture of VOCs in the gaseous phase.

SECTION 30. NR 420.03(1)(intro.) is amended to read:

NR 420.03(1) APPLICABILITY. The storage, ~~monitoring~~ recordkeeping and

maintenance requirements of subs. (2), (3) and (4) apply to all storage vessels for petroleum liquids of more than 151,412 liter (40,000 gallon) capacity on which construction or modification is commenced after July 1, 1975, with the exception of:

SECTION 31. NR 420.03(3)(title) is repealed and recreated to read:

NR 420.03(3)(title) RECORDKEEPING.

SECTION 32. NR 420.03(3)(a)(title), (b)(title) and (c)(title) and (4)(intro.)(title) and (a)(title) are created to read:

NR 420.03(3)(a)(title) General records.

(b)(title) Vapor pressure dependent records.

(c)(title) Vapor pressure determination.

(4)(intro.)(title) EQUIPMENT MAINTENANCE.

(a)(title) Applicability.

SECTION 33. NR 420.03(4)(b)(intro.) is amended to read:

NR 420.03(4)(b)(intro.) ~~Maintenance requirements~~ Requirements. No person ~~shall~~ may place, hold or store in a storage vessel any petroleum liquid which has a true vapor pressure as stored greater than 10.5 kP (1.52 psia) unless:

SECTION 34. NR 420.03(5)(intro.)(title) is created to read:

NR 420.03(5)(intro.)(title) FIXED ROOF VESSELS.

SECTION 35. NR 420.03(5)(a) and (b)(intro.) and 7.b. are amended to read:

NR 420.03(5)(a) ~~In addition to the vessels identified in sub. (1) this~~ (title) Applicability. This subsection applies, subject to the provisions of s. NR 425.03, to all fixed roof storage vessels with capacities greater than 151,412 liters (40,000 gallons) with the exception of those having capacities less than 1,600,000 liters (416,000 gallons) used to store crude petroleum and condensate prior to custody transfer.

(b)(intro.) (title) Storage in vessels with fixed roofs requirements. No owner or operator of a fixed roof storage vessel to which this subsection applies ~~shall~~ may permit such storage vessel to be used for storing any petroleum liquid which has a true vapor pressure as stored greater than 10.5 kPa (1.52 psia), unless:

7.b. The information required under sub. (3)~~(a) and (b) (intro.)~~.

SECTION 36. NR 420.03(6)(intro.)(title) is created to read:

NR 420.03(6)(intro.)(title) EXTERNAL FLOATING ROOF VESSELS.

SECTION 37. NR 420.03(6)(a)(intro.), (b)(intro.) and 2.c. are amended to read:

NR 420.03(6)(a)(intro.) ~~In addition to the vessels identified in sub. (1), this~~ (title) Applicability. This subsection applies, subject to the provisions of s. NR 425.03 (4) or (5), to all storage vessels equipped with external floating roofs having capacities greater than 151,412 liters (40,000 gallons) with the exception of:

(b)(intro.) (title) Storage in vessels with external floating roofs requirements. No owner or operator of a storage vessel equipped with an external floating roof to which this subsection applies ~~shall~~ may permit such

storage vessel to be used for storing any petroleum liquid unless:

2.c. For vapor-mounted seals, the accumulated area of gaps exceeding 0.32 cm (1/8in.) in width between the secondary seal and tank wall ~~shall~~ may not exceed 21.2 cm<sup>2</sup> per meter (1.00 in.<sup>2</sup> per foot) of tank diameter; and

SECTION 38. NR 420.03(7)(intro.)(title) is created to read:

NR 420.03(7)(intro.)(title) EXTERNAL FLOATING ROOF VESSELS WITH NO SECONDARY SEAL REQUIREMENT.

SECTION 39. NR 420.03(7)(a) is amended to read:

NR 420.03(7)(a) ~~In addition to the vessels identified in sub. (1), this~~ (title) Applicability. This subsection applies to all storage vessels with capacities greater than 151,412 liters (40,000 gallons) equipped with external floating roofs operating without secondary seals or their approved equivalent pursuant to sub. (6)(a)1. to 4.

SECTION 40. NR 420.03(7)(b)(title) is repealed and recreated to read:

NR 420.03(7)(b)(title) Recordkeeping.

SECTION 41. NR 420.04(1)(c) and (f)(intro.) are amended to read:

NR 420.04(1)(c) Emission limitation. The vapor control system required under par. (b)1. ~~shall~~ may not allow mass emissions of VOCs from control equipment to exceed 80 milligrams per liter (4.7 grains per gallon) of gasoline loaded.

(f)(intro.) Precautions. Sources to which this subsection applies ~~shall~~ may not:

SECTION 42. NR 420.04(2)(b)(intro.), (c)(intro.), (d)(intro.) and (h) are amended to read:

NR 420.04(2)(b) Equipment requirement for bulk plants. No owner or operator of a bulk gasoline plant ~~shall~~ may permit stationary storage tanks to load or unload gasoline unless each tank is equipped with a vapor balance system as described under par. (e), and approved by the department; and

(c) Equipment requirements for delivery vessels. No owner or operator of a bulk gasoline plant or delivery vessel ~~shall~~ may permit the gasoline transfer operations regulated under this paragraph unless each delivery vessel involved in such operations is equipped with a vapor balance system as described under par. (e) and approved by the department; and

(d) Transfer requirements. No owner or operator of a bulk gasoline plant or delivery vessel ~~shall~~ may permit the transfer of gasoline unless:

(h) Precautions. Notwithstanding s. NR 419.04 no owner or operator of a bulk gasoline plant ~~shall~~ may permit gasoline to be spilled, discarded in sewers or stored in open containers.

SECTION 43. NR 420.04(3)(b)(intro.) and (e) are amended to read:

NR 420.04(3)(b)(intro.) Vapor control requirements. No owner or operator of a gasoline dispensing facility and no owner of a gasoline storage tank at such a facility ~~shall~~ may transfer or cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank not excluded under par. (a) unless:

(e) Delivery vessel unloading. The operator of a delivery vessel ~~shall~~ may not commence transfer of gasoline to any gasoline dispensing facility

equipped with a vapor balance system pursuant to par. (c)1. without first properly connecting the vapor return line. The delivery vessel shall be designed, maintained and operated to be vapor tight at all times that it is vapor-laden.

SECTION 44. NR 420.04(4)(a), (b)4.a. and b. and (c)1.a. and b. are amended to read:

NR 420.04(4)(a) Applicability. This subsection applies, with compliance deadlines in accord with the compliance schedules for subs. (1) to (3), to all gasoline delivery vessels except those exempted from vapor balance system installations under subs. (2)(a) and (3)(a)~~1-c-3~~.

(b)4.a. An annual pressure test shall be performed on the vessel according to the test methods and procedures specified in s. NR 439.06(3)(d);

b. The vessel ~~shall~~ may not sustain a pressure change of ~~no~~ more than 0.75 kPa (3 inches of H<sub>2</sub>O) in 5 minutes when pressurized to a gauge pressure of 4.5 kPa (18 inches of H<sub>2</sub>O) or evacuated to a gauge pressure of 1.5 kPa (6 inches of H<sub>2</sub>O) during the test required in subpar. a.; and

(c)1.a. Company name and the date and location of the test required under par. (b)4.~~b~~,

b. Delivery vessel identification number, and

SECTION 45. NR 420.04(4)(c)1.c. is repealed and recreated to read:

NR 420.04(4)(c)1.c. The results of the test.

SECTION 46. NR 420.04(4)(c)1.d. to f. are repealed.



SECTION 47. NR 420.05(1)(b)(intro.) and (4)(b)(intro.), (d)(intro.) and (e)(intro.) are amended to read:

NR 420.05 (1)(b)(intro.) Requirements. The owner or operator of any vacuum producing systems at a petroleum refinery ~~shall~~ may not permit the emission of any noncondensable VOC, from the condensers or accumulators of the system. The control required by this paragraph shall be achieved by:

(4)(b)(intro.) Valve requirements. The owner or operator of a petroleum refinery ~~shall~~ may not:

(d)(intro.) Reporting. Beginning January 15, 1982, the owner or operator of a petroleum refinery shall submit quarterly report to the department containing the following:

(e)(intro.) Recordkeeping. ~~Maintain~~ The owner or operator of a petroleum refinery shall maintain a leaking component monitoring log, for a period of 3 years from the recording date, containing at a minimum:

SECTION 48. Chapter NR 421 (title) is amended to read:

CHAPTER NR 421 (title)  
CONTROL OF ORGANIC COMPOUND EMISSIONS FROM  
CHEMICAL, COATINGS AND RUBBER PRODUCTS MANUFACTURING  
SOURCES

SECTION 49. NR 421.01(1) and (2) are amended to read:

NR 421.01(1) APPLICABILITY. This chapter applies to all chemical, coatings and rubber products manufacturing air contaminant sources and to ~~all their owners or and operators of a chemical or rubber products manufacturing air contaminant source.~~

(2) PURPOSE. This chapter is adopted under ss. 144.31, ~~144.375~~ and 144.38, Stats., to categorize organic compound emissions from chemical, coatings and rubber products manufacturing sources into separate ~~volatile~~ organic compound air contaminant source categories and to establish emission limitations for these categories of sources in order to protect air quality.

SECTION 50. NR 421.02(2) and (5) are renumbered 400.02(22) and (51m).

SECTION 51. NR 421.02(12m) is created to read:

NR 421.02(12m) "VOC emission leak" means a fugitive emission of volatile organic compounds from any valve, pump, sealed agitator, compressor, flange or relief valve for which the fugitive VOC concentration is measured to exceed 10,000 ppm when tested according to Method 21 in Appendix A of 40 C.F.R. pt. 60, incorporated by reference in ch. NR 484.

SECTION 52. NR 421.03(3)(title) is created to read:

NR 421.03(3)(title) STORAGE OF VOCS AT PHARMACEUTICAL MANUFACTURING FACILITIES.

SECTION 53. NR 421.03(1)(b)1.(intro.) and (2)(b) are amended to read:

NR 421.03(1)(b)1.(intro.) Equip each vent from reactors, distillation operations, crystallizers, centrifuges, or vacuum dryers with surface condensers or an equally effective control device as approved by the department. If a surface condenser is used, the condenser outlet gas temperature ~~shall~~ may not exceed:

(2)(b) Emission reduction requirements. No owner or operator of a

synthetic pharmaceutical manufacturing facility ~~shall~~ may permit the delivery of VOCs with vapor pressure in excess of 28.0 kPa (4.1 psia) at 20°C from a truck or railcar to the storage vessel unless a vapor balance or equivalent control system is provided. The system must be at least 90% effective in reducing emissions from transfer operations.—

SECTION 54. NR 421.04(4)(intro.) is amended to read:

NR 421.04 (4) (intro.) EMISSIONS TESTING SCHEDULE. The owner or operator of a pneumatic rubber tire manufacturing facility ~~shall~~ may not exceed the following deadlines:

SECTION 55. NR 421.05(1) is amended to read:

NR 421.05(1) APPLICABILITY. Effective October 1, 1986, this section applies to reaction tanks, thinning tanks, blending tanks and other process vessels used in any synthetic resin manufacturing facility which has ~~total emissions of VOCs from the facility of~~ the potential to emit more than 100 tons of VOCs per year, with any emission control equipment inoperative, and which is located in the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha.

SECTION 56. NR 421.05(2)(a)1. and 2. and (b) are amended to read:

NR 421.05(2)(a)1. A surface condenser, or equally effective control ~~system as~~ device approved by the department, and a vapor recovery or control system that reduces emissions from the surface ~~condenser~~ condenser or equally effective ~~control system~~ device by 85%, or

2. An equivalent system or approach demonstrated to reliably control emissions from a process that does not include a condenser by not less than 90% as approved by the department.

(b) If a surface condenser is used, prevent the condenser outlet gas temperature ~~may not exceed~~ from exceeding 32°C (90°F).

SECTION 57. NR 421.05(2)(e) is repealed and recreated to read:

NR 421.05(2)(e) Monitor each valve, pump, sealed agitator, compressor, flange and relief valve used with a process stream which contains at least 10.0 percent VOCs by weight using Method 21 of Appendix A, 40 C.F.R. pt. 60, incorporated by reference in ch. NR 484. The monitoring schedule shall be as follows:

1. Monitor each valve, pump, sealed agitator, compressor, flange and relief valve that is located within 2.0 meters (6.6 feet) of a permanent support surface once during each calendar quarter.

2. Monitor all other valves, pumps, sealed agitators, compressors, flanges, and relief valves once during each calendar year.

SECTION 58. NR 421.05(2)(f) is renumbered (h) and, as renumbered, is amended to read:

NR 421.05(2)(h) Document to the department all repairs of ~~visually~~ detectable leaks of ~~liquid~~ VOCs for each calendar quarter. This documentation is to include a description of the equipment that leaked, date of detection, date of repairs, dates of followup inspection, and an explanation of what caused the leak. This documentation is to be submitted to the department within one month after the close of the calendar quarter during which the

leaks were detected and repaired.

SECTION 59. NR 421.05(2)(f) and (g) are created to read:

NR 421.05(2)(f) Check bimonthly by visual inspection each valve, pump, sealed agitator, compressor, flange and relief valve for indications of dripping liquid.

(g) Repair all leaks detected as soon as practicable, but not later than 15 calendar days after leak detection unless the repair is technically infeasible without a process unit shutdown. In the case of such infeasibility, repair shall occur before the end of the next process unit shutdown.

SECTION 60. NR 421.05(3)(b) and (c)4. are amended to read:

NR 421.05(3)(b) The owner or operator of a synthetic resin manufacturing facility which commenced construction or commenced modification on or after October 1, 1986 shall meet the emission control requirements of this section upon startup unless the owner or operator demonstrates to the satisfaction of the department that compliance upon startup would be technologically infeasible. Such ~~forces~~ sources shall instead meet a department specified compliance schedule which provides for compliance with the emission control requirements of this section as soon as practicable but in no event later than the time period allowed for achieving final compliance under par.(c).

(c)4. Complete construction or installation of equipment modifications within 16 months and achieve final compliance not later than December 31, 1987.

SECTION 61. NR 421.05(3)(c)5. is repealed.

SECTION 62. NR 421.06(1) is amended to read:

NR 421.06(1) APPLICABILITY. Effective October 1, 1986, this section applies to pigment dispersion chambers, thinning tanks, tinting, straining, blending tanks and other process vessels used in any coatings manufacturing facility which has ~~total emissions of VOCs from the facility of the potential to emit~~ more than 100 tons of VOCs per year, with any emission control equipment inoperative, and which is located in the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha.

SECTION 63. NR 421.06(2)(e) is repealed and recreated to read:

NR 421.06(2)(e) Monitor each valve, pump, sealed agitator, compressor, flange and relief valve used with a process stream which contains at least 10.0 percent VOCs by weight using Method 21 of Appendix A, 40 C.F.R. pt. 60, incorporated by reference in ch. NR 484. The monitoring schedule shall be as follows:

1. Monitor each valve, pump, sealed agitator, compressor, flange and relief valve that is located within 2.0 meters (6.6 feet) of a permanent support surface once during each calendar quarter.

2. Monitor all other valves, pumps, sealed agitators, compressors, flanges, and relief valves once during each calendar year.

SECTION 64. NR 421.06(2)(f) is renumbered (h) and, as renumbered, is amended to read:

NR 421.06(2)(h) Document to the department all repairs of visually detectable leaks of ~~liquid~~ VOCs for each calendar quarter. This documentation is to include a description of the equipment that leaked, date of detection, date of repairs, ~~dates~~ date of followup inspection, and an explanation of what caused the leak. This documentation is to be submitted to the department within one month after the close of the calendar quarter during which the leaks were detected and repaired.

SECTION 65. NR 421.06(2)(f) and (g) are created to read:

NR 421.06(2)(f) Check bimonthly by visual inspection each valve, pump, sealed agitator, compressor, flange and relief valve for indications of dripping liquid.

(g) Repair all leaks detected as soon as practicable, but not later than 15 calendar days after leak detection unless the repair is technically infeasible without a process unit shutdown. In the case of such infeasibility, repair shall occur before the end of the next process unit shutdown.

SECTION 66. NR 421.06(3)(c)4. is amended to read:

NR 421.06(3)(c)4. Complete construction or installation of equipment modifications ~~within 16 months~~ and achieve final compliance not later than December 31, 1987.

SECTION 67. NR 421.06(3)(c)5. is repealed.

SECTION 68. Chapter NR 422 (title), 422.01(1) and (2) are amended to read:

CHAPTER NR 422 (title)  
 CONTROL OF ORGANIC COMPOUND EMISSIONS FROM  
 SURFACE COATING, PRINTING AND ROAD ASPHALT SURFACING  
PROCESSES OPERATIONS

NR 422.01(1) APPLICABILITY. This chapter applies to all surface coating and printing process air contaminant sources and to ~~all their owners or~~ and operators of a surface coating or printing process air contaminant source. This chapter also applies to the handling and use of cutback asphalts for application to surfaces traversed by motor vehicles, bicycles or pedestrians and to all persons responsible for such handling and use.

(2) PURPOSE. This chapter is adopted under ss. 144.31 and 144.38, Stats., to categorize organic compound emissions from surface coating, and printing processes and asphalt surfacing operations into separate volatile organic compound air contaminant source categories and to establish emission limitations or other requirements for these categories of sources in order to protect air quality.

SECTION 70. NR 422.02(6) is renumbered 400.02(21m).

SECTION 71. NR 422.02(16) is amended to read:

NR 422.02(16) "Fabric coating" means ~~the~~ applying a coating, including a saturation coating, or printing ~~of~~ on to a textile substrate with a blade,

← SECTION 69.  
 removed because  
 the change was  
 published in Aug 89  
 register



roll, rotogravure or dip coater, or other coating applicator, to impart properties that are not initially present, such as strength, stability, water or acid repellancy, or appearance.

SECTION 72. NR 422.02(28m) is created to read:

NR 422.02(28m) "Organisol" means a thick coating containing resin, plasticizers and organic solvent used to coat flexible substances such as paper or fabrics.

SECTION 73. NR 422.02(32) is amended to read:

NR 422.02(32) "Paper coating" means application of the uniform coatings, including saturation coatings, put on paper and pressure sensitive tape regardless of substrate. Related web coating processes on plastic ~~fibers~~ films and on metal foil are included in this definition but processes such as printing where the coating is not uniform across the web are not included.

SECTION 74. NR 422.02(33g) is created to read:

NR 422.02(33g) "Plastisol" means a composition of finely divided resin and plasticizer used to coat flexible substances such as paper or fabrics which is applied as a thick gel which solidifies when heated.

SECTION 75. NR 422.02(33m) is amended to read:

NR 422.02(33m) "Pretreatment coat" means a coating applied directly to ~~aluminum~~ metal substrates and which contains ~~no more than 12 % solids, by weight,~~ at least 1/2 % acid by weight, and is used to provide surface etching, corrosion resistance and enhanced adhesion of subsequent coatings.

SECTION 76. NR 422.02(41m) is created to read:

NR 422.02(41m) "Saturation coating" means application of a coating which permeates the substrate to which it is applied.

SECTION 77. NR 422.02(50) is amended to read:

NR 422.02(50) "Vinyl coating" means printing on or applying a decorative or protective topcoat ~~or printing on, other than vinyl plastisols or organisols,~~ to vinyl coated fabric or vinyl sheets.

SECTION 78. NR 422.03(intro.), (1) to (4) and (6)(b) are amended to read:

NR 422.03(intro.) Sections NR 422.04 to 422.155 apply to any facility which contains one or more of the surface coating or printing process lines described in ss. NR ~~422.04~~ 422.05 to 422.155 with the following exceptions:

(1) Surface coating process lines whose emissions of VOCs are never greater than 6.8 kilograms (15 pounds) in any one day, and never greater than 1.4 kilograms (~~3~~ 3.1 pounds) in any one hour with any emission control equipment inoperative.

(2) Surface coating facilities ~~covered as described~~ under ss. NR 422.15 and 422.155 which have total emissions of VOCs from all surface coating process lines, with all emission control equipment inoperative, of less than or equal to 10 tons per year. However, if VOC emissions, with all emission control equipment inoperative, exceed 10 tons in any given year, the exception provided by this subsection shall not apply to the facility in any subsequent year.

(3) Surface coating facilities ~~covered as described~~ under ss. NR 422.05

to 422.08, 422.09 to 422.13, 422.15 and 422.155 which are located outside the counties of Brown, Calumet, Dane, Dodge, Fond du Lac, Jefferson, Kenosha, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock Sheboygan, Walworth, Washington, Waukesha, and Winnebago and which have total emissions of VOCs from the facility, with all emission control equipment inoperative, of less than or equal to 100 tons per year.

(4) Printing facilities ~~covered~~ as described under s. NR 422.14 which have total emissions of VOCs from the facility, with all emission control equipment inoperative, of less than or equal to 100 tons per year.

(6)(b) Located in the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington, or Waukesha, and which do not have ~~total emissions of the potential to emit~~ VOCs from the facility, with all emission control equipment inoperative, of ~~less~~ more than ~~or equal to~~ 100 tons per year.

SECTION 79. NR 422.04(1) is renumbered (2).

SECTION 80. NR 422.04(1) is created to read:

NR 422.04(1) IN-LINE AVERAGING. Compliance with the emission limitations of this chapter may be achieved through a daily volume-weighted average of all coatings or inks applied by emission units subject to the same emission limitation in a process line.

SECTION 81. NR 422.04(2) and (3) are renumbered (3) and (4), and (3)(a), (b)(intro.) and 1. and (4), as renumbered, are amended to read:

NR 422.04(3)(a) Surface coating operations covered under ss. NR 422.09 to 422.11 and 422.15 have the added option of achieving compliance with the

emission limitations through the use of an alternative control method or system involving a high transfer efficiency coating application system, either when used alone or in conjunction with low solvent content coating technology.

(b) (intro.) Compliance under the option provided in this subsection must be ~~demonstrated to the satisfaction of~~ approved by the department. This requires that:

1. The design, operation, and efficiency of the application system must be certified in writing by the owner or operator and submitted to the department for approval, and

(4) CAPTURE SYSTEMS. The design, operation, and efficiency of any capture system used in conjunction with sub. ~~(1)~~(2)(b), (c) or (d) shall be certified in writing by the owner or operator. The efficiency of the capture system shall be great enough to insure that the emission rate from the controlled line is less than or equal to an emission rate determined using the equation in s. NR 425.04(3)(a)3. The capture system is subject to approval by the department.

SECTION 82. NR 422.04(3)(c) is created to read:

NR 422.04(3)(c) Each alternative control method or system approval granted by the department under this subsection shall be submitted to the administrator of the U.S. environmental protection agency or designee as a source-specific revision to the department's state implementation plan for ozone.

SECTION 83. NR 422.05(2)(intro.) is amended to read:

NR 422.05(2)(intro.) EMISSION LIMITATIONS. No owner or operator of a

can coating line ~~shall~~ may cause, allow or permit the emission of any VOCs in excess of:

SECTION 84. NR 422.06(2) is amended to read:

NR 422.06(2) EMISSION LIMITATIONS. No owner or operator of a coil coating line ~~shall~~ may cause, allow or permit the emission of any VOCs in excess of 0.31 kilograms per liter of coating (2.6 pounds per gallon), excluding water, delivered to each coating applicator from prime and topcoat or single coat operations.

SECTION 85. NR 422.07(2) is amended to read:

NR 422.07(2) EMISSION LIMITATIONS. No owner or operator of a paper coating line ~~shall~~ may cause, allow or permit the emission of any VOCs in excess of 0.35 kilograms per liter of coating (2.9 pounds per gallon), excluding water, delivered to each coating applicator from a paper coating line.

SECTION 86. NR 422.08(2)(intro.) is amended to read:

NR 422.08(2) EMISSION LIMITATIONS. No owner or operator of a fabric coating line or a vinyl coating line ~~shall~~ may cause, allow or permit the emission of any VOCs in excess of:

SECTION 87. NR 422.085(2) and (3) are amended to read:

NR 422.085(2) EMISSION LIMITATIONS. No owner or operator of a leather coating facility may cause, allow, or permit the emission of any VOCs from coating applications in excess of 18.6 kilograms per 100 square meters (38.0

pounds per 1000 square feet) of coated finished product ~~regardless of the number of coats applied~~ calculated on a daily average basis. ~~The emissions may be calculated as a calendar monthly average for a facility.~~

(3) COMPLIANCE REQUIREMENTS AND SCHEDULES. The owner or operator of a leather coating facility shall comply with the requirements of sub. (4) and s. NR 425.03(1), (8) and (9).

SECTION 88. NR 422.085(4) is created to read:

NR 422.085(4) REPORTING AND RECORDKEEPING. (a) To determine compliance with the leather coating VOC emission limit in this section, the facility shall maintain daily coating usage and leather production records in a format approved by the department. Reporting, recordkeeping and access to these records shall be in accordance with ss. NR 439.03 to 439.05.

(b) The daily VOC emission rate shall be determined by the following equation:

$$c = a/b$$

where:

c is the daily average VOC emission rate,

a is the total amount of VOCs emitted during the day, and

b is the prorated surface area of leather coated during the day, where:

$$b = \sum_{i=1}^n d_i e_i ,$$

$d_i$  is the total area of the  $i$ th batch of hides coated during the day, and

$e_i$  is the ratio of actual VOC emissions resulting from coating any portion of the  $i$ th batch of hides during the day to the total predicted VOC

emissions resulting from all coating of the entire ith batch.

(c) The facility shall measure the surface area of each piece of leather coated with a mechanism initially calibrated for minimum accuracy to the Turner Korrekt Machine or Sawyer Measurement systems. The average surface area per coated piece of leather may be used for a batch of leather provided that the average is based on a minimum of 500 pieces. Otherwise, the facility average surface area per coated leather piece shall be used. In no case may the total area allocated to production over all days from a piece of leather exceed the average area for that leather.

SECTION 89. NR 422.09(2)(intro.), (3)(intro.), (4)(intro.) and (5) are amended to read:

NR 422.09(2)(intro.) EMISSION LIMITATIONS--ENAMELS. No owner or operator of an automobile surface coating line which, prior to January 1, 1979, used an enamel coating system, ~~shall~~ may cause, allow or permit the emission of any VOCs in excess of:

(3)(intro.) EMISSION LIMITATIONS - LACQUERS. No owner or operator of an automobile surface coating line which, prior to January 1, 1979, used a lacquer coating system, ~~shall~~ may cause, allow or permit the emission of any VOCs in excess of:

(4)(intro.) EMISSION LIMITATIONS -- TRUCKS. No owner or operator of a light-duty truck surface coating line ~~shall~~ may cause, allow or permit the emission of any VOCs in excess of:

(5) EMISSION RATE AVERAGING. Each emission limit in this section may be interpreted as a weighted daily average, ~~or as an instantaneous arithmetic average of the colors in use, whichever is~~ if specified in an approved

compliance plan. The emission limits are referenced to water-borne coatings conventionally applied. Any coating line which achieves an equivalent emission rate per unit area coated shall be deemed in compliance.

SECTION 90. NR 422.10(2) is amended to read:

NR 422.10(2) EMISSION LIMITATIONS. No owner or operator of a furniture metal coating line ~~shall~~ may cause, allow, or permit the emission of any VOCs in excess of 0.36 kilograms per liter of coating (3.0 pounds per gallon), excluding water, delivered to each coating applicator from prime and topcoat or single coat operations.

SECTION 91. NR 422.11(2) is amended to read:

NR 422.11(2) EMISSION LIMITATIONS. No owner or operator of a large appliance coating line ~~shall~~ may cause, allow or permit the emission of any VOCs in excess of 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, delivered to each coating applicator from single, prime, or topcoat coating operations.

SECTION 92. NR 422.12(2) is amended to read:

NR 422.12(2) EMISSION LIMITATION. No owner or operator of a magnet wire coating oven ~~shall~~ may cause, allow or permit the emission of any VOCs in excess of 0.20 kilograms per liter of coating (1.7 pounds per gallon), excluding water, delivered to each coating applicator for magnet wire coating operations.

SECTION 93. NR 422.13(2)(intro.) is amended to read:



NR 422.13(2)(intro.) EMISSION LIMITATIONS. No owner or operator of a flat wood panel coating line ~~shall~~ may cause, allow, or permit the emission of any VOCs from a coating application system in excess of:

SECTION 94. NR 422.14(2)(intro.) is amended to read:

NR 422.14(2)(intro.) EMISSION LIMITATIONS. No owner or operator of a packaging rotogravure, publication rotogravure, or flexographic printing line ~~shall~~ may operate, or cause, allow or permit the operation of the line unless:

SECTION 94m. NR 422.15(1)(b) is amended to read:

NR 422.15(1)(b) Coating of marine ~~vessel exteriors~~ vessels;

SECTION 95. NR 422:15(1)(f) is repealed.

SECTION 96. NR 422.15(2)(intro.) and (3)(intro.) are amended to read:

NR 422.15(2)(intro.) EMISSION LIMITATIONS -- CURED COATINGS. No owner or operator of a miscellaneous metal parts or products coating line using a baked or specially cured coating technology ~~shall~~ may cause, allow, or permit the emission of any VOCs in excess of:

(3) EMISSION LIMITATIONS -- AIR DRIED COATINGS. No owner or operator of a miscellaneous metal parts or products coating line using an air dried coating technology ~~shall~~ may cause, allow, or permit the emission of any VOCs in excess of:

SECTION 97. NR 422.15(4) to (7) are renumbered (5) to (8).

SECTION 98. NR 422.15(4) is created to read:

NR 422.15(4) EMISSION LIMITATIONS -- PRETREATMENT COATS. No owner or operator of a miscellaneous metal parts or products coating line may cause, allow, or permit the emission of any VOCs in excess of 0.78 kilograms per liter (6.50 pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies pretreatment coats. Coatings subject to this subsection may not participate in an internal offset under s. NR 425.04(3) or generate emission reduction credits in an emission reduction option.

SECTION 99. NR 422.155(2)(a) to (d) are amended to read:

NR 422.155(2)(a) 0.80 kilograms per liter (6.68 pounds per gallon) of coating, excluding water ~~and solvents exempt under s. NR 425.04(6)~~, delivered to a coating applicator that applies pretreatment coats.

(b) 0.53 kilograms per liter (4.44 pounds per gallon) of coating, excluding water ~~and solvents exempt under s. NR 425.04(6)~~, delivered to a coating applicator that applies prime coats.

(c) 0.72 kilograms per liter (6.00 pounds per gallon) of coating, excluding water ~~and solvents exempt under s. NR 425.04(6)~~, delivered to a coating applicator that applies topcoats.

(d) 0.42 kilograms per liter (3.50 pounds per gallon) of coating, excluding water ~~and solvents exempt under s. NR 425.04(6)~~, delivered to a coating applicator that applies clear coats.

SECTION 100. NR 422.16 (title), (2)(a) and (b) are amended to read:

NR 422.16 (title) USE OF ASPHALT SURFACING MATERIALS.

NR 422.16(2)(a) ~~After August 1, 1979, the~~ The use of rapid curing

cutback asphalts ~~shall not be permitted~~ containing gasoline or naphtha as the diluent is prohibited.

(b) ~~After May 1, 1980, the~~ The use of cutback asphalts for sealcoating operations shall not be permitted ~~not prohibited under par. (a) is prohibited~~ except where for:

1. Application of a single coat of liquid asphalt is applied to an aggregate base to control dust; and

2. Use as a penetrating prime coat during the first and last months of the ozone season.

SECTION 101. NR 422.16(2)(c) is repealed.

SECTION 102. NR 423.01(1) and (2) are amended to read:

NR 423.01(1) APPLICABILITY. This chapter applies to all solvent cleaning operation air contaminant sources and to ~~all their~~ their owners ~~or~~ and operators ~~of a solvent cleaning operation air contaminant source.~~

(2) PURPOSE. This chapter is adopted under ss. 144.31 and 144.38, Stats., to categorize organic compound emissions from solvent cleaning operations into ~~a separate volatile organic compound category~~ air contaminant source categories and to establish emission limitations for ~~this category~~ these categories of sources in order to protect air quality.

SECTION 103. NR 423.03(2)(a)(intro.) and (c) and (3)(d)1. are amended to read:

NR 423.03(2)(a)(intro.) This section does not apply to individual cold cleaners to which not more than 5.7 liters (1.5 gallons) of solvent is added

per day or to individual open top vapor, conveyORIZED vapor or conveyORIZED non-vapor degreasers whose emissions of VOC's are not more than 6.8 kilograms (15 pounds) in any one day, nor more than 1.4 kilograms (~~3~~ 3.1 pounds) in any one hour, provided:

(c) The requirements of sub. (3)(b) to (g), do not apply to cold cleaners with an open area smaller than ~~0.1~~ 0.10 square meter (1.1 square feet).

(3)(d)1. Freeboard that gives a freeboard ratio greater than or equal to ~~0.7~~ 0.70; or

SECTION 104. NR 423.04(3)(a)1. is amended to read:

NR 423.04(3)(a)1. A carbon adsorption system which ~~shall~~ may emit no more than 100 ppm of VOC, before dilution; or

SECTION 105. NR 423.05(1) is amended to read:

NR 423.05(1) APPLICABILITY. This section applies, subject to the provisions of s. NR 425.03, to petroleum liquid solvent washers, dryers, solvent filters, settling tanks, vacuum stills, piping, ductwork, pumps, storage tanks, and other containers and conveyors of petroleum liquid solvent that are used in petroleum liquid solvent dry cleaning facilities which have ~~total emissions of the potential to emit~~ VOCs from the facility ~~of~~ in an amount totaling more than 100 tons per year and which are located within the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington, or Waukesha.

SECTION 106. NR 424.01(1) and (2) are amended to read:

NR 424.01(1) APPLICABILITY. This chapter applies to all process lines

which are direct air contaminant sources and to ~~all~~ their owners ~~or~~ and operators ~~of a process line which is a direct air contaminant source.~~

(2) PURPOSE. This chapter is adopted under ss. 144.31 and 144.38, Stats., to categorize organic compound emissions from process lines into a separate ~~volatile~~ organic compound air contaminant source category and to establish emission limitations for this category of sources in order to protect air quality.

SECTION 107. NR 424.03(1)(a)(intro.), 3. and 4. and (b), (2)(intro.) and (3)(intro.) are amended to read:

NR 424.03(1)(a)(intro.) This ~~chapter~~ section applies to all process lines which emit organic compounds, solvents or mixtures, with the following exceptions:

3. Enclosed paint spraying operations from which emissions are never greater than 13.6 kilograms (30 pounds) in any day and never greater than 2.8 kilograms (~~6~~ 6.2 pounds) in any hour.

4. All other process lines from which organic compound emissions are never greater than 6.8 kilograms (15 pounds) in any day and never greater than 1.4 kilograms (~~3~~ 3.1 pounds) in any hour.

(b) Where process lines are subject to emission limitations listed elsewhere in chs. NR 419 to 423, the requirements of this ~~chapter~~ section shall apply in accord with the provisions of s. NR 425.03(7)(b).

(2)(intro.) EMISSION LIMITATIONS. Process lines to which this ~~chapter~~ section applies shall meet the following emission limitations:

(3)(intro.) ELECTION. Surface coating and printing processes subject to the requirements of this ~~subsection~~ section may instead elect, with the

approval of the department, to meet the emission limitations of s. NR 422.01 to 422.15, notwithstanding s. NR 422.03(1), (2), (3) or (4) or s. NR 425.03, provided that:

SECTION 108. NR 424.04(1) is amended to read:

NR 424.04(1) APPLICABILITY. Effective October 1, 1986, this section applies to any aerosol can filling facility which has ~~a total emission of VOCs of the potential to emit~~ more than 100 tons of VOCs per year and which is located within the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha.

SECTION 109. NR 425.01(1) and (2) are amended to read:

NR 425.01(1) APPLICABILITY. This chapter applies to all air contaminant sources governed by chs. NR 419 to 424 and to ~~all their~~ owners or and operators ~~of an air contaminant source governed by chs. NR 419 to 424.~~

(2) PURPOSE. This chapter is adopted under ss. 144.31 and 144.38, Stats., to establish time schedules for air contaminant sources governed by chs. NR 419 to 424 to meet the emission limits set for each specific ~~volatile~~ organic compound emission source, to specify exceptions to the requirements of chs. NR 419 to 424, to establish an internal offset system, to establish criteria for granting compliance schedule delays and to create a registration requirement for the use of specified organic compounds.

SECTION 110. NR 425.02 (intro.) is amended to read:

NR 425.02 (intro.) In addition to the definitions ~~used~~ in this section, the definitions contained in chs. NR 400, 419, 420 and 421 apply to the terms

used in this chapter.

SECTION 111. NR 425.03(2)(a)(intro.), (3)(a)(intro.) and (e), (4)(a)(intro.), (6)(b)(intro.), (7)(c) and (d) and (8) are amended to read:

NR 425.03(2)(a)(intro.) Except as provided under sub. (5) and s. NR 425.03, the owner or operator of a VOC emission source proposing to install and operate VOC emission control equipment or replacement process equipment to comply with the emission limiting requirements of chs. NR 419 to 424 ~~shall~~ may not exceed the deadlines specified for the following increments of progress as measured from the date specified in the effective date table for that source:

(3)(a)(intro.) Except as provided under pars. (b) to (e), ~~sub.~~ and subs. (5) and ~~s. NR 425.04 (7m)~~, the owner or operator of a VOC source proposing to employ low solvent content coating or ink application technology to comply with the requirements of chs. NR 419 to 424 ~~shall~~ may not exceed the deadlines specified for the following increments of progress as measured from the date specified in the effective date table for that source:

(e) Where the department determines that the low solvent content coating or ink application technology has been sufficiently researched and developed for a particular application, the owner or operator of a VOC source proposing to comply with the requirements of chs. NR 419 to 424 through application of low solvent content coatings or inks ~~shall~~ may not exceed the deadlines specified for the following increments of progress as measured from the date specified in the effective date table for that source:

(4)(a)(intro.) Except as provided under ~~sub.~~ subs. (5) and ~~s. NR 425.04 (7m)~~, the owner or operator of a VOC source proposing to comply with the requirements of chs. NR 419 to 424 by modification of existing processing or

emission control equipment ~~shall~~ may not exceed the deadlines specified for the following increments of progress as measured from the date specified in the effective date table for that source:

(6)(b)(intro.) Except as provided under ~~s. NR 425.04 sub. (7m)~~, the owner or operator of a source required to undertake a phased compliance program ~~shall~~ may not exceed the following deadlines:

(7)(c) Process lines covered under ss. NR 420.03(6), ~~421.03(3)(a)~~, 420.04(1)(a), ~~(2)(a)2., (3)(a)2.~~ (1)(d), (e) and (g), (2)(c)3., (f) and (g), (3)(b)3., (d) and (g)3., 420.05(4), 421.03(2)(a)(1) to (3), 421.04, 422.13(1), 422.14(1), to 422.15(1), 423.04(1), and 423.05(1), 420.05(4)(a), 421.04(1)(a) and 421.03(1)(a)1. on which construction or modification commenced on or after August 1, 1979, but before April 1, 1981 shall continue to comply with the requirements of s. NR 424.03(2)(b) during any interim period prior to the final compliance date in the applicable compliance schedule.

(d) Process lines covered under s. NR 421.04(1)(a) on which construction or modification commenced on or after April 1, 1981 but before August 31, 1981, and process lines covered under s. NR 423.05(1) on which construction or modification commenced on or after April 1, 1981 but before December 1, 1983, shall continue to comply with the requirements of s. NR 424.03(2)(c) during any interim period prior to the final compliance date in the applicable compliance schedule.

(8) NEW AND MODIFIED SOURCES. Any source on which construction or modification commenced on or after the date specified for such source in the effective date table shall meet the emission limitations of chs. NR 419 to 425 upon startup unless the owner or operator of the source demonstrates, to the satisfaction of the department, that compliance upon startup would be



technologically infeasible. Such sources shall instead meet a department-specified compliance schedule which provides for interim emission limitations and for ultimate compliance with the emission limitations of chs. NR 419 to 425. Ultimate compliance shall be as soon as practicable but in no event later than the final compliance date the source would have been required to meet under sub. (2), (3), (4) or (6) if it had been constructed or modified prior to the date specified in the effective date table.

SECTION 112. NR 425.03(10) is created to read:

NR 425.03(10) SOURCES OF VOCs WITH VAPOR PRESSURES LESS THAN OR EQUAL TO 0.1 MILLEMETERS OF MERCURY (0.0019psia) AT STANDARD CONDITIONS. (a) This subsection applies only to sources constructed or last modified before the effective date of this rule [revisor insert date] which fail to meet an applicable VOC emission limitation of chs. NR 419 to 424 as a result of the amendment to s. NR 400.02(100) which became effective on the effective date of this rule [revisor insert date].

(b) The owner or operator of any source subject to this subsection shall:

1. Notify the department's bureau of air management in writing by 90 days after the effective date of this rule [revisor insert date]. This notification shall identify the name and location of the affected facility and the specific coatings and inks used at that facility which are eligible for the compliance extension under this subsection.

2. Achieve final compliance no later than 12 months after the effective date of this rule [revisor insert date].

(c) For sources which were subject to an emission limitation under chs.

NR 419 to 424 before the effective date of this rule [revisor insert date], the compliance schedule in par. (b) shall only apply to those coatings or inks which contained organic compounds with a vapor pressure less than or equal to 0.1 millimeters of mercury (0.0019 psia) at standard conditions and which the source relied on to comply with the applicable emission limitation prior to the effective date of this rule [revisor insert date].

(d) The department may, by order issued under ss. 144.31(2)(b) and 144.423, Stats., authorize a source not in compliance with an emission limitation prescribed in chs. NR 419 to 424 as a result of the amendment to s. NR 400.02(100) which became effective on the effective date of this rule [revisor insert date] to achieve compliance as expeditiously as practicable but not later than 3 years after the effective date of this rule [revisor insert date]. The department shall hold a public hearing in accordance with its rules prior to authorizing any period of delayed compliance which exceeds 30 days in duration. No order under this subsection may be issued unless the requirements of s. NR 436.04(2)(g) and (h) are satisfied.

SECTION 113. NR 425.04(title) is amended to read:

NR 425.04(title) EXCEPTIONS, REGISTRATIONS AND NONOZONE SEASON ALLOWANCES.

SECTION 114. NR 425.04(1), (2)(title) and (2) are renumbered (1)(a), (1)(title) and (b) and NR 425.04(1)(b), as renumbered, is amended to read:

NR 425.04(1)(b) The Except for the provisions of s. NR 419.03(1) and (2) and sub. (6), the requirements of chs. NR 419 to 425 do not apply to the use or application of insecticides, pesticides or herbicides or to the use or

emission of trichlorotrifluorethane (~~from~~ CFC-113), ethane ~~or~~, methane, methylene chloride or methyl chloroform.

SECTION 115. NR 425.04(3m) is created to read:

NR 425.04(3m) SPECIALIZED COATINGS. (a) This subsection applies only to sources subject to s. NR 422.15 which, prior to the effective date of this rule [revisor insert date], applied specialized coatings required by state or federal agencies on products made for their use.

(b) The owner or operator of any source subject to this subsection shall:

1. Notify the department's bureau of air management in writing by 90 days after the effective date of this rule [revisor insert date].

2. Achieve final compliance for specialized coatings required by state or federal agencies on products made for their use by 12 months after effective date of this rule [revisor insert date].

(c) The department may, by order issued under ss. 144.31(2)(b) and 144.423, Stats., authorize a source not in compliance with an emission limitation in s. NR 422.15 for specialized coatings required by state or federal agencies on products made for their use to achieve compliance as expeditiously as practicable but not later than 3 years after the effective date of this rule [revisor insert date]. The department shall hold a public hearing in accordance with its rules prior to authorizing any period of delayed compliance which exceeds 30 days in duration. No order under this sub. may be issued unless the requirements of s. NR 436.04(2)(g) and (h) are satisfied.

(d) Notwithstanding par. (b), the owner or operator of a source

constructed or modified before the effective date of this rule [revisor insert date] which fails to meet a VOC emission limitation of s. NR 422.15 because of the amendment to s. NR 422.15(1)(f) which became effective on the effective date of this rule [revisor insert date] may request a variance from the emission limitation.

1. Any request made under this paragraph shall be made in writing and be received by the department on or before 12 months after the effective date of this rule [revisor insert date].

2. The department may grant a variance under this paragraph and set an alternate emission limitation under the criteria and procedures outlined in s. NR 436.05(2)(c) and (d), (3) and (5).

SECTION 116. NR 425.04(4) is renumbered NR 425.03(7m) and, as renumbered, is amended to read:

NR 425.03(7m) COMPLIANCE SCHEDULE DELAYS. Notwithstanding any compliance schedule approved or issued under ~~s. NR 425.03~~ this section, the department may approved a new compliance schedule which provides additional time for completion of an increment of progress, provided:

(a) That the owner or operator of the source is able to document to the department's satisfaction that the source is unable to meet the applicable deadline under ~~s. NR 425.03~~ this section for the increment of progress due to circumstances beyond the owner or operator's control which could not reasonably have been avoided by using all prudent planning;

(b) ~~Final~~ That final compliance for sources covered under ss. NR 420.03(5), 420.04(1)(a), (2)(a), (3)(a) ~~(1)(b), (c) and (f), (2)(b), (c)1. and 2., (d), (e) and (h), (3)(b)1. and 2., (c), (e), (f), (g)1. and 2., (h) and~~

(i), 420.05(1)(a), ~~(2)(a), (3)(a)~~ (1) to (3), 422.05(1), ~~422.06(1), 422.07(1)~~, to 422.08(1), 422.10(1), ~~422.11(1)~~, to 422.12(1) and 423.03(1) (3) to (5) is not later than December 31, 1982; and

(c) ~~For~~ That final compliance for sources covered under ss. NR 420.03(6)~~(a)~~, 420.04(1)(a), ~~(2)(a), (3)(a)~~ and (1)(d), (e) and (g), (2)(c)3., (f) and (g), (3)(b)3., (d) and (g)3., 420.05(4)~~(a)~~, 421.03(1)(a), ~~(2)(a) and (3)(a)(1) to (3)~~, 421.04, 422.13(1), ~~422.14(1)~~, to 422.15(1) and 423.04 final compliance may is not be later than that required in s. NR ~~425.03~~ this section.

SECTION 117. NR 425.04(5) and (6)(title) are renumbered (4) and (2)(title) and, as renumbered, are amended to read:

NR 425.04(4) LIMITATION OF RESTRICTIONS TO THE OZONE SEASON. Where the requirements of chs. NR 419 to 425 are met by means of a ~~fossil-fuel~~ natural gas fired incinerator, use of the incinerator shall be required only during the ozone season, provided that operation of the incinerator is not required for purposes of occupational health or safety or for the control of toxic or hazardous substances, malodors, or other pollutants regulated by other sections of chs. NR 400 to 499. The provisions of this subsection may be applied, subject to approval of the department, where the requirements of chs. NR 419 to 425 are met by use of other energy intensive control devices.

(2) (title) REGISTRATION OF CERTAIN SOLVENTS.

SECTION 118. NR 425.04(6)(a) is repealed:

SECTION 119. NR 425.04(6)(b) is renumbered (2).

SECTION 120. NR 439.04(2) is amended to read:

NR 439.04(2) Copies of all records required under ~~sub. (1)~~ this section shall be retained by the owner or operator for a period of 3 years or for such other period as may be specified by the department.

SECTION 121. NR 439.04(3) is created to read:

NR 439.04(3) The owner or operator of an air contaminant source subject to an emission limitation in chs. NR 419 to 424, in addition to maintaining the records required in sub. (1), shall maintain records which demonstrate compliance with applicable emission limitations or eligibility for exemptions in chs. NR 419 to 424. Such records shall, at a minimum:

- (a) Be consistent with any averaging periods specified or allowed by the department;
- (b) Be in a format acceptable to the department;
- (c) Include as-applied formulation and analytical data for all coatings and inks used by the source, coating and ink consumption data, and process information;
- (d) Include capture and control equipment performance data when the source is demonstrating compliance through the use of control equipment, and
- (e) Include actual applicator transfer efficiency data when the source is demonstrating compliance through the use of a high transfer efficiency coating application system.

SECTION 122. NR 439.06(intro.) and (3) are amended to read:

NR 439.06 METHODS AND PROCEDURES FOR DETERMINING COMPLIANCE WITH

EMISSION LIMITATIONS. (intro.) When a test is required by the department, the owner or operator of a source shall use the ~~applicable test~~ reference methods listed in this section, and in ss. NR 439.07 and ~~439.12,~~ 439.075 to determine compliance with emission limitations, unless ~~other methods are an~~ alternative or equivalent method is approved, or a specific method is required, in writing, by the department. The test methods shall include quality control and quality assurance procedures and the data reporting format which are specified and approved by the department for collection, analysis, processing and reporting of compliance monitoring data. Notwithstanding the compliance ~~demonstration~~ determination methods which the owner or operator of a source is authorized to use under this chapter, the department may use any relevant information or appropriate method to determine a source's compliance with applicable emission limitations.

(3) ORGANIC COMPOUND EMISSIONS. The owner or operator of a source shall use the ~~following test~~ methods and procedures listed in this subsection to determine compliance with an organic compound emission limitation~~±~~. If a test method inadvertently measures compounds which are listed in s. NR 400.02(100) as having negligible photochemical reactivity, the owner or operator may exclude these compounds when determining compliance with a VOC emission limit. Unless a source achieves compliance through an averaging method specifically authorized by the department, organic compound emission limitations in chs. 419 to 424 shall be achieved on an instantaneous basis.

(a) ~~To determine organic compound emission concentrations or emission rates,~~ Method 18, 25, 25A or 25B in 40 C.F.R. pt. 60, Appendix A, incorporated by reference in ch. NR 484, shall be used to determine organic compound emission concentrations or emission rates.

(b) ~~To determine the organic solvent content, the volume of solids, the weight of solids, the water content, and the density of surface coatings and inks,~~ Method 24 or 24A, in 40 C.F.R. pt. 60, Appendix A, incorporated by reference in ch. NR 484, shall be used to determine the organic solvent content, the volume of solids, the weight of solids, the water content, and the density of surface coatings and inks.

(c) ~~To detect organic compound emission leaks,~~ Method 21, in 40 C.F.R. pt. 60, Appendix A, incorporated by reference in ch. NR 484, shall be used to detect organic compound emission leaks.

(d) ~~To~~ Method 27 in 40 C.F.R. pt. 60, Appendix A, incorporated by reference in ch. NR 484, shall be used to verify the vapor tightness of gasoline delivery tanks, the method outlined in s. NR 420.04(4).

(e) ~~To determine compliance with an internal offset the~~ The equations in s. NR 425.04(3) shall be used to determine compliance with an internal offset.

(f) ~~To determine the transfer efficiency of surface coating equipment,~~ methods Methods approved by the department shall be used to determine the transfer efficiency of surface coating equipment.

(g) ~~To determine compliance with the aerosol can filling VOC emission limit in s. NR 424.04, method~~ Method 25A in 40 CFR Part C.F.R. pt. 60, Appendix A, incorporated by reference in ch. NR 484, shall be used to determine compliance with the aerosol can filling VOC emission limit in s. NR 424.04. If a flame ionization detector is used to test compliance with s. NR 424.04, test equipment calibration shall be conducted with propane. During the testing procedure, the flame ionization detector shall continuously measure VOC emissions for a minimum of one hour per aerosol can filling line with the control device not in operation and for a minimum of one hour with



the control device in full operation. Production data taken concurrently with the testing procedure shall be used to calculate the VOC emission rates for the tested aerosol can filling line when the control device is not in operation and when the control device is in full operation.

SECTION 123. NR 439.06(3)(h) is created to read:

NR 439.06(3)(h) Compounds identified in s. NR 400.02(100) shall be treated as water to determine compliance with emission limitations which refer to water.

SECTION 124. NR 439.06(6)(a) is amended to read:

NR 439.06(6)(a) Method 7, 7A, 7B, 7C, 7D ~~and~~ or 7E<sub>T</sub> in 40 C.F.R. pt. 60, Appendix A, incorporated by reference in ch. NR 484, or

SECTION 125. NR 439.07(title), (1)(c)1. and (i)12. and 13. and (2)(a)5. and 6. are amended to read:

NR 439.07(title) METHODS AND PROCEDURES FOR PERFORMING STACK COMPLIANCE EMISSION TESTING, FUEL SAMPLING AND ANALYSIS AND CONTINUOUS EMISSION MONITORING.

(1)(c)1. A pre-test conference ~~with~~ which includes the owner or operator of the source, the tester, and the department to discuss any deficiencies in the plan or settle any test procedure questions the department, the tester, or the source owner or operator might have.

(i)12. An explanation of any excessive variation in the results when comparing the repetitions of the ~~stack~~ compliance emission test.

13. If the ~~stack~~ compliance emission test being conducted is a retest,

the changes made to the process or control device since the last test.

(2)(a)5. Ash content in coal. The ash content of a coal sample shall be determined according to ASTM D3174-82, Standard Test Method for Ash in the Analysis Sample of Coal and Coke, incorporated by reference in ch. NR 484.

6. Moisture content in coal. The moisture content of a coal sample shall be determined according to ASTM D3173-73, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, incorporated by reference in ch. NR 484.

SECTION 126. NR 439.12 is renumbered 439.075 and, as renumbered, 439.075 (title), (1)(b)3.f.4) and (d)1.b. are amended to read:

NR 439.075 (title) Compliance emission testing, fuel sampling and analysis and continuous emission monitoring requirements. ✕

(1)(b)3.f.4) Mixers, curing belts on dens, reactors, granulators, dryers, cookers, screens, mills and facilities which store run-of-pile material at triple super phosphate plants subject to s. NR 440.40.

(d)1.b. No periodic compliance emission test is required under this subsection for any affected emission point equipped with a continuous emission monitor for the air contaminants requiring testing if the monitor meets the performance specification requirements of s. NR 439.07(3).

SECTION 127. NR 484.01(1) and (2) are amended to read:

NR 484.01(1) APPLICABILITY. This chapter applies to all air contaminant sources governed by ~~ch. NR 439 or chs. NR 445 to 483~~ 400 to 499 and to ~~all their~~ owners or operators of an air contaminant source governed by ~~ch. NR 439 or chs. 445 to 483.~~

(2) PURPOSE. This chapter is adopted under s. 144.31, Stats., to incorporate testing ~~and~~, monitoring and other technical standards, established by the federal government and technical societies and organizations, by reference into ~~the chapters governing the testing and determination of compliance of a source and the emission of hazardous pollutants by air contaminant sources~~ chs. NR 400 to 499.

SECTION 128. NR 484.025 is renumbered 484.08 and, as renumbered, 484.08(intro.), (4) and (5) are amended to read:

NR 484.08(intro.) The federal regulations or appendix materials in effect on June 30, 1983 listed in this section are incorporated by reference in the corresponding sections of chs. NR 445 to ~~484~~ 483. Copies of these materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use from the superintendent of documents, U.S. government printing office, Washington, D.C. 20402.

(4) 29 C.F.R. s. 1910.145(d)(4) for ss. NR ~~447.12(2)(b)~~ and 447.14(2)(a)2. and 447.17(2)(a)2.

(5) 29 C.F.R. s. ~~1910.93a(g)(2)(ii)~~ 1910.1001(j)(2)(ii) for s. ~~NR 447.12(3)(a)3~~ 447.13(2)(a)4.

SECTION 129. NR 484.03(intro.) and (1) are renumbered 484.09(intro.) and (1), and 484.09(intro.) and (1)(a), as renumbered, are amended to read:

NR 484.09 (intro.) The materials listed in this section are incorporated by reference in the corresponding sections noted. Some of the materials are also incorporated in Appendix B of 40 C.F.R. pt. 61 as in effect on June 30,

1983. Since Appendix B is incorporated by reference in s. NR ~~484.025~~ 484.08, materials incorporated by reference in that Appendix are hereby also incorporated by reference and made a part of this section. The materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use at the corresponding address noted.

(1)(a) ASTM D737-75, Standard Test Method for Air Permeability of Textile Fabrics, for s. NR ~~447.08(1)~~ 447.15(1)(a)2.

SECTION 130. NR 484.03(2) is renumbered 484.05(2) and, as renumbered, is amended to read:

NR 484.05(2) The Architectural Aluminum Manufacturer's Association publication number AAMA 605.2-1985 is incorporated by reference in s. NR 422.02(2)m). ~~The publication is available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin, or~~ may be purchased for personal use from the Architectural Aluminum Manufacturer's Association, 2700 River Road, Suite 118, Des Plaines, IL 60018.

SECTION 131. NR 484.04 is renumbered 484.06 and 484.06 (title), (1)(b) and (2)(c), as renumbered, are amended to read:

NR 484.06 (title) CODE OF FEDERAL REGULATIONS AND OTHER MATERIALS IN CHAPTER NR 439.

(1)(b) Appendix B of 40 C.F.R. pt. 60 for ss. NR 439.06 (2)(b), (4)(b), (6)(b), (7)(b) and (9)(a) 2. and ~~439.12(3)(f)~~ 439.075(3)(f).

(2)(c) ASTM D2234-76, Standard Methods for Collection of a Gross Sample

of Coal, for 40 C.F.R. pt. 60, Appendix A, Method 19, par. 2.1.1. and for ss. NR 439.07(2)(a)1 and ~~439.12(2)(b)1.a.~~ 439.075(2)(b)1.a., 2.a. and 3.a.

SECTION 132. NR 484.05 is renumbered 484.09(2) and as renumbered is amended to read:

NR 484.09(2) The threshold limit values and biological exposure indices for 1987-1988 published by the American conference of governmental industrial hygienists (publication ISBN:0-936712-72-4) are incorporated by reference in ss. NR 445.04(1)(a)1. and 2. and (b) and (2)(a) and (b), 445.05(1)(a)1. and 2. and (b) and (2)(a) and (b) and 445.06(4). ~~The materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or~~ This publication may be purchased for personal use ~~at the following address:~~ from the American Conference of Governmental Industrial Hygienists (ACGIH), 6500 Glenway Avenue, Cincinnati, Ohio 45211.

SECTION 133. NR 484.05(title), (intro.) and (1) are created to read:

NR 484.05(intro.) CODE OF FEDERAL REGULATIONS AND OTHER MATERIALS IN CHS. NR 419 TO 438. The federal regulations or appendix materials in effect on July 1, 1988 and other materials listed in this section are incorporated by reference in the corresponding sections of chs. NR 419 to 438. Copies of these materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use from the superintendent of documents, U.S. government printing office, Washington, D.C. 20402, or from the organization listed in the applicable subsection.

(1) Test Method 21 in Appendix A of 40 C.F.R. pt. 60 is incorporated by reference in ss. NR 421.02(12m), 421.05(2)(e) and 421.06(2)(e).

SECTION 134. NR 484.06 is renumbered 484.03.

SECTION 135. NR 484.06(1)(zp) is created to read:

(zp) Test Method 27, Appendix A of 40 C.F.R. pt. 60 for s. NR 439.06(3)(d).

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on August 24, 1989.

The rules 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 November 28, 1989.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By Carroll D. Besadny  
Carroll D. Besadny, Secretary

(SEAL)