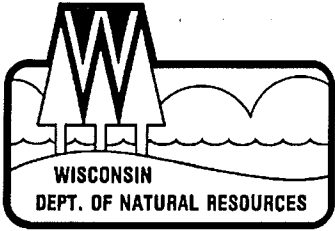


CR 92-199



George E. Meyer  
Secretary

State of Wisconsin | DEPARTMENT OF NATURAL RESOURCES

101 South Webster Street  
Box 7921  
Madison, Wisconsin 53707  
TELEPHONE 608-266-2621  
TELEFAX 608-267-3579  
TDD 608-267-6897

STATE OF WISCONSIN )  
 )  
DEPARTMENT OF NATURAL RESOURCES )      ss

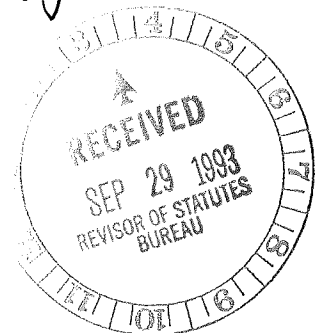
TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, George E. Meyer, 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-36-92 was duly approved and adopted by this Department on July 29, 1993. 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 21st  
day of September, 1993.

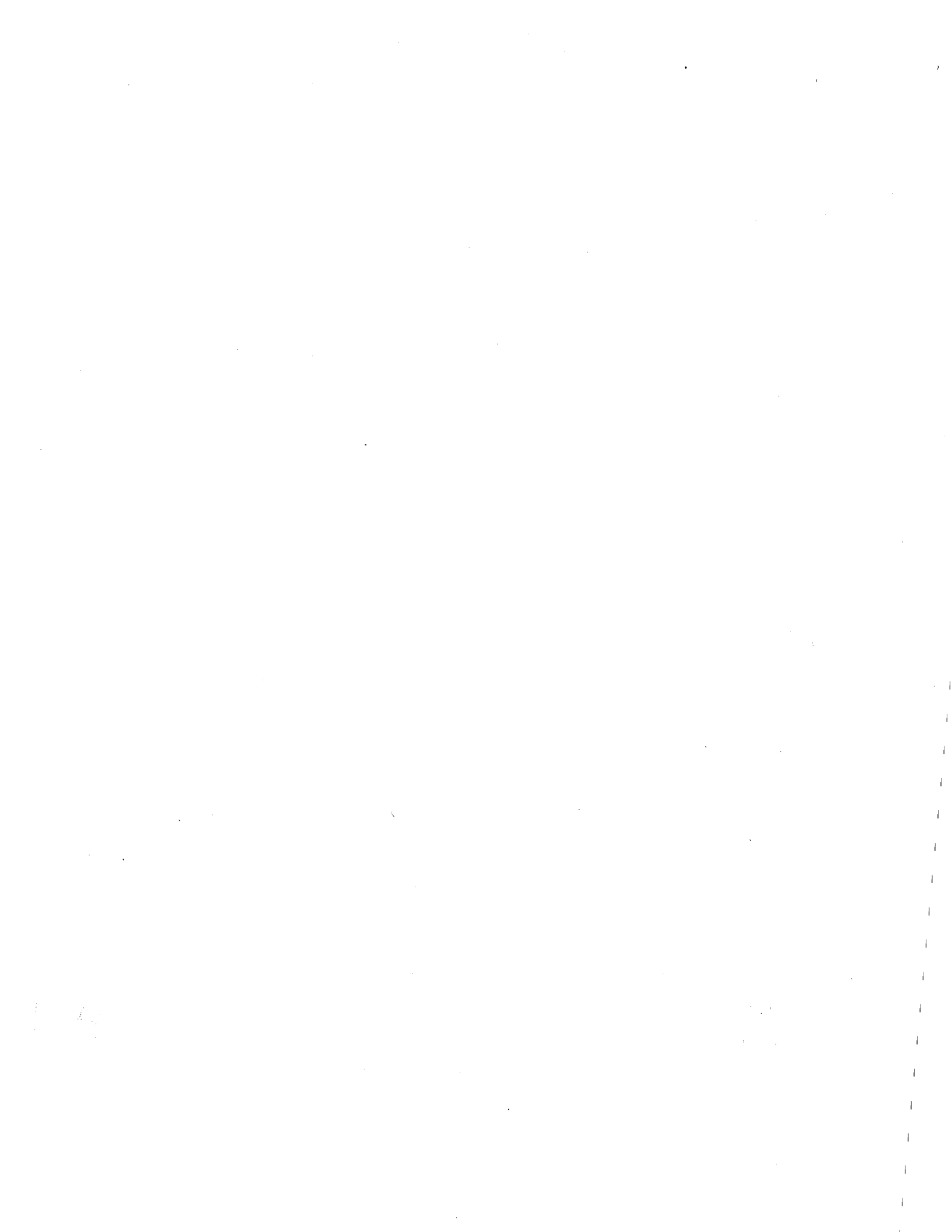
*George E. Meyer*  
\_\_\_\_\_  
George E. Meyer, Secretary

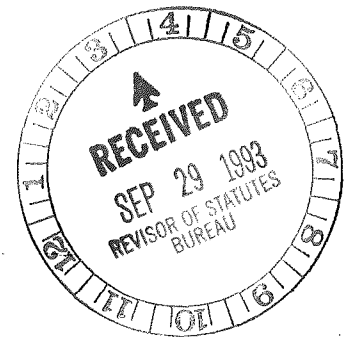
(SEAL)



1-1-94







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

.....  
IN THE MATTER of repealing ss. NR 420.04(1)(b)1.c. and  
(3)(c)3.; renumbering and amending ss. NR 422.04(1),  
423.05(1) and 424.04(1); amending ss. NR 419.05(2),  
420.03(1)(e), (2)(a) and (b) and (5)(b)6., 420.04(1)(b)1.b.,  
(2)(a)(intro.), (3)(c)2. and (4)(c)1.c., 421.03(1)(a),  
421.05(1), (2)(a)(intro.) and (b), 421.06(1), 422.02(50),  
422.03(1) to (4) and (6)(a) and (b), 422.04(2)(d) and  
(3)(c), 422.14(2)(a), (c)2. and 3. and (3)(title), (intro.)  
and (b) and (c), 422.15(1)(intro.), (e), (g) and (j), (4),  
(5)(intro.) and (b), 423.03(2)(a)1. and (f), 423.04(2),  
424.04(2), 425.04(4), 425.05(1)(c), 439.06(intro.) and  
(3)(e) and 484.05(3)(b); repealing and recreating  
ss. NR 421.05(3), 421.06(3), 422.04(4), 424.04(3),  
425.03(9), 425.05(1)(b)2. and 439.04(3); and creating  
ss. NR 420.03(8), 421.05(1)(b), 421.06(1)(b), 422.03(6)(c),  
422.04(1)(a) to (c), 423.03(7), 423.05(1)(a) and (b) and  
(3), 424.04(1)(b), 425.03(12) and (13), 439.03(7), 439.04(4)  
and (5) and 484.05(1m), of the Wisconsin Administrative Code,  
pertaining to volatile organic compound emissions from  
sources regulated under the state implementation plan for  
ozone.  
.....

AM-36-92

Analysis Prepared by the Department of Natural Resources

Statutory authority: ss. 144.31(1)(a), 144.38 and 227.11(2)(a), Stats.

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

Wisconsin's Reasonably Available Control Technology (RACT) rules for volatile organic compounds (VOCs) are intended to achieve and maintain compliance with the national ambient air quality standard for ozone. These proposed rule changes are intended to fulfill requirements under the Clean Air Act Amendments of 1990 (1990 Amendments) related to RACT for VOCs.

Three provisions of the 1990 Amendments are being addressed by these proposed rule changes. First, deficiencies in existing VOC RACT rules are being corrected. Second, changes are proposed to ensure that existing VOC RACT rules are applied in newly designated ozone nonattainment areas. Third, changes are proposed to make any exemptions or applicability thresholds contained in existing VOC RACT rules consistent with the 1990 Amendments definition of major source in moderate or worse nonattainment areas.



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

NR 419.05(2) STORAGE REQUIREMENTS. When storing organic compounds, solvents, or mixtures having a vapor pressure equal to or greater than 10.5 kPa (1.52 psia) at 21°C (70°F), floating roofs, vapor condensation systems, vapor holding tanks, or equally effective alternative control methods approved by the department shall be used. Any alternative control method approved by the department under this subsection shall be submitted to, and will not become effective for federal purposes until approved by, 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 2. NR 420.03(1)(e), (2)(a) and (b), and (5)(b)6. are amended to read:

NR 420.03(1)(e) ~~Underground~~ Horizontal underground storage tanks if the total volume of petroleum liquids added to and taken from a tank annually does not exceed twice the volume of the tank used to store JP-4 jet fuel.

(2)(a) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 10.5 kPa (1.52 psia) but not greater than 77 kPa (11.1 psia), the storage vessel shall be equipped with a floating roof, a vapor recovery system or ~~their equivalents~~ an equally effective alternative control method approved by the department.

(b) If the true vapor pressure of the petroleum liquid, as stored, is greater than 77 kPa (11.1 psia), the storage vessel shall be equipped with a vapor recovery system or ~~its equivalent~~ an equally effective alternative control method approved by the department.

(5)(b)6. A complete inspection of cover and seal is conducted whenever the tank is emptied, ~~though not more frequently than at 6 month intervals nor~~

~~less frequently than at 8 year intervals~~ or at least every 5 years, whichever is more frequent; and

SECTION 3. NR 420.03(8) is created to read:

NR 420.03(8) ALTERNATIVE CONTROL. Any alternative control method approved by the department under sub. (2), (5)(b)2. or (6)(b)1. shall be submitted to, and will not become effective for federal purposes until approved by, 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 4. NR 420.04(1)(b)1.b. is amended to read:

NR 420.04(1)(b)1.b. A vapor collection system which directs all vapors to a fuel gas system; ~~or~~ and

SECTION 5. NR 420.04(1)(b)1.c. is repealed.

SECTION 6. NR 420.04(2)(a)(intro.) and (3)(c)2. are amended to read:

NR 420.04(2)(a) Applicability. (intro.) Subject to the provisions of s. NR 425.03, this subsection applies ~~to the loading and storage facilities of all bulk gasoline plants which have a 3 year average annual throughput of 1,330,000 liters (350,000 gallons) of gasoline or more;~~ to the unloading, loading, and storage facilities of all bulk gasoline plants which have ~~a 3 year average annual~~ an average daily throughput of ~~3,800,000 liters (1,000,000 gallons)~~ 15,000 liters (4,000 gallons) of gasoline or more on a 30-day rolling average; and to all delivery vessels involved in such loading or unloading

operations ~~with the following exceptions:~~ except as provided in subds. 1. and 2. Any plant that becomes or is subject to this subsection shall remain subject to this subsection even if its throughput later falls below the applicability thresholds.

(3)(c)2. A refrigeration-condensation system ~~or equivalent~~ capable of recovering at least 90% by weight of the organic compounds in the displaced vapor; or an equally effective alternative control method approved by the department. Any alternative control method approved by the department under this subdivision shall be submitted to, and will not become effective for federal purposes until approved by, 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 7. NR 420.04(3)(c)3. is repealed.

SECTION 8. NR 420.04 (4)(c)1.c. is amended to read:

NR 420.04(4)(c)1.c. The results of the test, including all data collected during the test.

SECTION 9. NR 421.03(1)(a) is amended to read:

NR 421.03(1)(a) Applicability. This subsection applies, subject to the provisions of s. NR 425.03, to all operations at pharmaceutical manufacturing facilities involved in the manufacture of pharmaceutical products by chemical synthesis, with the exception of any reactor, distillation unit, dryer, filter, crystallizer, centrifuge, or other individual operation that has a

~~potential~~ an actual emission rate of less than 6.8 kilograms per day (15 pounds per day) with all emission control equipment inoperative.

SECTION 10. NR 421.05(1) is amended to read:

NR 421.05(1) APPLICABILITY. (a) 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 ~~the potential to emit more than~~ maximum theoretical emissions of VOCs from the processes greater than or equal to 100 tons of VOCs per year, with any emission control equipment inoperative, and which is located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha.

SECTION 11. NR 421.05(1)(b) is created to read:

NR 421.05(1)(b) Effective the effective date of this rule ... [revisor insert date], this section applies to reaction tanks, thinning tanks, blending tanks and other process vessels used in any synthetic resin manufacturing facility which:

1. Has maximum theoretical emissions of VOCs from the processes greater than or equal to 25 tons per year and which is located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha, or

2. Has maximum theoretical emissions of VOCs from the processes greater than or equal to 100 tons per year and which is located in the county of Door, Kewaunee, Manitowoc, Sheboygan or Walworth.

SECTION 12. NR 421.05(2)(a)(intro.) and (b) are amended to read:

NR 421.05(2)(a)(intro.) Equip each vent from reaction tanks, and all blending tanks and thinning tanks, with an emission control system ~~which includes the following:~~ which meets one of the conditions listed in this paragraph. Any equally effective control method or equivalent system approved by the department under this paragraph shall be submitted to, and will not become effective for federal purposes until approved by, 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.

(b) If a surface condenser is used, continuously record the condenser outlet gas temperature, and prevent the condenser outlet gas temperature from exceeding 32°C (90°F).

SECTION 13. NR 421.05(3) is repealed and recreated to read:

NR 421.05(3) COMPLIANCE SCHEDULE. (a) This subsection applies only to a synthetic resin manufacturing facility which is in existence on the effective date or this rule ... [revisor insert date] and which is:

1. Located in the county of Door, Kewaunee, Manitowoc, Sheboygan or Walworth, or
2. Located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha and which was not subject to this section prior to the effective date of this rule ... [revisor insert date].

(b) The owner or operator of any source identified under par. (a) 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 provide the name and location of the affected facility and



include VOC emission data if necessary to support eligibility under this subsection.

2. Achieve final compliance with the requirements of this section no later than May 31, 1995.

SECTION 14. NR 421.06(1) is amended to read:

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

SECTION 15. NR 421.06(1)(b) is created to read:

NR 421.06(1)(b) Effective the effective date of this rule ... [revisor insert date], this section applies to pigment dispersion chambers, thinning tanks, tinting, straining, blending tanks and other process vessels used in any coating manufacturing facility which:

1. Has maximum theoretical emissions of VOCs from the processes greater than or equal to 25 tons of VOCs per year and is located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha, or

2. Has maximum theoretical emissions of VOCs from the processes greater than or equal to 100 tons of VOCs per year and is located in the county of Door, Kewaunee, Manitowoc, Sheboygan or Walworth.

SECTION 16. NR 421.06(3) is repealed and recreated to read:

NR 421.06(3) COMPLIANCE SCHEDULE. (a) This subsection applies only to a coating manufacturing facility which is in existence on the effective date of this rule ... [revisor insert date] and which is:

1. Located in the county of Door, Kewaunee, Manitowoc, Sheboygan or Walworth, or

2. Located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha and which was not subject to this section prior to the effective date of this rule ... [revisor insert date].

(b) The owner or operator of any source identified under par. (a) 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 provide the name and location of the affected facility and include VOC emission data if necessary to support eligibility under this subsection.

2. Achieve final compliance with the requirements of this section no later than May 31, 1995.

SECTION 17. NR 422.02(50) is amended to read:

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

SECTION 18. NR 422.03(1) to (4) and (6)(a) and (b) are amended to read:

NR 422.03(1) ~~Surface~~ Any surface coating process ~~lines whose line which~~ meets the specific applicability requirements of ss. NR 422.04 to 422.155

within a facility when actual emissions of VOCs from all surface coating process lines meeting the same applicability requirements within the facility are never greater than 6.8 kilograms (15 pounds) in any one day, and never greater than 1.4 kilograms (3.1 pounds) in any one hour with any all emission control equipment inoperative.

(2) Surface coating facilities as described under ~~ss.~~ s. NR 422.15 and or 422.155 which have ~~total emissions~~ maximum theoretical emissions of VOCs from all surface coating process lines, ~~with all emission control equipment inoperative,~~ meeting the applicability requirements of s. NR 422.15 or 422.155 within the facility of less than or equal to 10 tons per year.

(3) Surface coating facilities 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, Door, Fond du Lac, Jefferson, Kenosha, Kewaunee, 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 as described under s. NR 422.14 which are located in the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha and have total maximum theoretical emissions of VOCs from the facility, ~~with all emission control equipment inoperative,~~ of less than or equal to ~~100~~ 25 tons per year, or are located outside the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington and Waukesha and have maximum theoretical emissions of VOCs from the facility of less than or equal to 100 tons per year.

(6)(a) Located outside the counties of Door, Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington and Waukesha; or

(b) Located in the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington, or Waukesha, and which ~~do not have the potential to emit maximum theoretical emissions of~~ VOCs from the facility, ~~with all emission control equipment inoperative,~~ of ~~more~~ less than ~~100~~ 25 tons per year; ~~or~~

SECTION 19. NR 422.03(6)(c) is created to read:

NR 422.03(6)(c) Located in the counties of Door, Kewaunee, Manitowoc, Sheboygan or Walworth, and which have maximum theoretical emissions of VOCs from the facility of less than 100 tons per year.

SECTION 20. NR 422.04(1) is renumbered NR 422.04(1)(intro.) and amended to read:

NR 422.04(1)(intro.) 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 in a process line subject to the same numerical emission limitation ~~in a process line~~. Any owner or operator achieving compliance by means of this subsection shall comply with the reporting requirements of s. NR 439.03(7) and the recordkeeping requirements of s. NR 439.04(5)(g).

SECTION 21. NR 422.04(1)(a) to (c) is created to read:

NR 422.04(1)(a) No owner or operator of a coating line subject to an emission limitation contained in ss. NR 422.05 to 422.08, 422.09 to 422.12,

422.15 or 422.155 and complying with the emission limitation by means of this subsection may cause, allow or permit the daily volume-weighted average VOC content to exceed the emission limitation to which the coatings are subject. For purposes of this paragraph, daily volume-weighted average VOC content shall be calculated by using the following equation:

$$VOC_A = \left[ \sum_{i=1}^n C_i V_i \right] / V_T$$

where:

$VOC_A$  is the volume-weighted average VOC content of two or more coatings applied on a coating line during any day in kilograms per liter (pounds per gallon) of coating, excluding water.

$i$  is the subscript denoting an individual coating.

$n$  is the number of different coatings subject to the same numerical emission limitation applied during any day on a coating line.

$C_i$  is the VOC content of each coating ( $i$ ) as applied during any day on the coating line in kilograms per liter (pounds per gallon) of coating, excluding water.

$V_i$  is the volume of each coating ( $i$ ), excluding water, as applied during any day on the coating line in liters (gallons).

$V_T$  is the total volume of all n coatings subject to the same emission limitation, excluding water, applied during any day on the coating line in liters (gallons).

(b) No owner or operator of a printing line subject to an emission limitation contained in s. NR 422.14(2)(a) or (b) and complying with the emission limitation by means of this subsection may cause, allow or permit the daily volume-weighted average VOC content to exceed the emission limitation to which the inks are subject.

1. When s. NR 422.14(2)(a) applies, the daily volume-weighted average VOC content shall be calculated by using the following equation:

$$VOC_B = \frac{\sum_{i=1}^n C_i L_i V_{VF_i}}{\sum_{i=1}^n L_i V_{VF_i}}$$

where:

$VOC_B$  is the volume-weighted average VOC content of 2 or more inks applied on a printing line during any day in percent VOC by volume of the volatile fraction.

i is the subscript denoting an individual ink.

n is the number of different inks subject to the same emission limitation applied during any day on a printing line.

$C_i$  is the VOC content in percent VOC by volume of the volatile fraction in each ink (i) as applied.

$L_i$  is the volume of each ink (i) as applied in liters (gallons).

$V_{VF_i}$  is the volume fraction volatile content in each ink (i) as applied.

2. When s. NR 422.14(2)(b) applies, the daily volume weighted average VOC content shall be calculated by using the following equation:

$$VOC_C = \left[ \sum_{i=1}^n C_i V_i \right] / V_T$$

where:

$VOC_C$  is the volume-weighted average VOC content of 2 or more inks applied on a printing line during any day in percent VOC by volume, excluding water.

$i$  is the subscript denoting an individual ink.

$n$  is the number of different inks subject to the same emission limitation applied during any day on a printing line.

$C_i$  is the VOC content of each ink (i) applied during any day on the printing line in percent VOC by volume, excluding water.

$V_i$  is the volume of each ink (i), excluding water, applied during any day on the printing line in liters (gallons).

$V_T$  is the total volume of all n inks subject to the same emission limitation, excluding water, applied during any day on the printing line in liters (gallons).

(c) An owner or operator of a coating or printing line subject to an emission limitation in this chapter not specified in par. (a) or (b) may comply by means of this subsection only by obtaining prior department approval through an order issued under s. 144.31(2)(b), Stats., or through a permit. Any approval granted by the department under this paragraph shall be submitted to, and will not become effective for federal purposes until approved by, 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 22. NR 422.04(2)(d) and (3)(c) are amended to read:

NR 422.04(2)(d) An equivalent system or approach demonstrated to reliably control emissions to a level at or below the applicable emission limit and approved by the department. Any approval granted by the department under this paragraph shall be submitted to, and will not become effective for federal purposes until approved by, 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.

(3)(c) Each alternative control method or system approval granted by the department under this subsection shall be submitted to and will not become



effective for federal purposes until approved by, 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 23. NR 422.04(4) is repealed and recreated to read:

NR 422.04(4) CAPTURE SYSTEMS. The design, operation and efficiency of any capture system used in conjunction with sub. (2)(b), (c) or (d) shall be certified in writing by the owner or operator. The efficiency of the capture system is subject to approval by the department and shall be great enough to insure that the total emissions for any day from the controlled line are less than or equal to the amount determined using the following equation:

$$E = \left[ \sum_{i=1}^n A_i B_i C_i \right] / D_i$$

where:

E is the total allowable daily emissions of VOCs in kilograms (pounds) from all coatings or inks subject to the same numerical emission limitation and applied on the controlled line.

i is the subscript denoting an individual coating or ink.

n is the number of different coatings or inks applied.

$A_i$  is the allowable emission rate for the coatings or inks pursuant to ss. NR 422.05 to 422.155 in kilograms per liter (pounds per gallon) of coating or ink, excluding water, delivered to the applicator.

$B_i$  is the amount of coating material or ink in liters (gallons), delivered to the applicator during the actual production day.

$C_i$  is the volume fraction of solids in the coating or ink, delivered to the applicator during the actual production day.

$D_i$  is the theoretical volume fraction of solids in the coating or ink necessary to meet the allowable emission rate pursuant to ss. NR 422.05 to 422.15 calculated from:

$$D_i = 1 - [ A_i / P_i ]$$

where:

$P_i$  is the density of the VOC used in the coating or ink delivered to the applicator during the actual production day in kilograms per liter (pounds per gallon). If the coating or ink does not contain any VOCs, or if the actual VOC density cannot be demonstrated by the owner or operator, a value of 0.88 kilograms per liter (7.36 pounds per gallon) shall be used for  $P_i$ .

SECTION 24. NR 422.14(2)(a), (c)2. and 3., and (3)(title), (intro.) and (b) and (c) are amended to read:

NR 422.14(2)(a) The volatile fraction of ink, as it is applied to the substrate, contains 25% by volume or less of ~~organic solvent~~ VOC and 75% by volume or more of water;

(c)2. An incineration or catalytic oxidation system, provided that 90% by weight of the ~~nonmethane~~ VOCs ~~±~~ (VOC measured as total combustible carbon) ~~±~~ which enter the incinerator or oxidation unit are oxidized to nonorganic compounds; or

3. An alternative VOC emission reduction system demonstrated to have at least a 90% reduction efficiency, as measured across the control system, and approved by the department. Any approval granted by the department under this subdivision shall be submitted to, and will not become effective for federal purposes until approved by, 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.

(3)(title) CONTROL SYSTEM. (intro.) The ~~design, operation and overall~~ emission reduction efficiency of any capture system and control device used in conjunction with sub. (2)(c) shall be ~~certified in writing by the owner or operator and is subject to approval by the department. The capture efficiency shall be at a minimum~~ at least:

(b) ~~70%~~ 65% where a packaging rotogravure process is employed; or

(c) ~~65%~~ 60% where a flexographic printing process is employed.

SECTION 25. NR 422.15(1)(intro.), (e), (g) and (j), (4), (5)(intro.) and (b) are amended to read:

NR 422.15(1)(intro.) APPLICABILITY. This section applies, subject to the provisions of s. NR 425.03, to all coating line application areas, conveyors, flashoff areas, ~~air and drying areas~~, forced air driers, and ovens of any industry categorized under ~~standard industrial classification codes of the 2-digit major groups of 33 to 39 as described in the Standard Industrial Classification Manual, 1987, incorporated by reference in ch. NR 484~~, which are involved in the surface coating of miscellaneous metal parts and products with the following exceptions:

(e) Adhesives and materials used to prepare a surface for adhesives at facilities located outside the counties of Door, Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington and Waukesha;

(g) Sealants or fillers whose purpose is to seal or fill seams, joints, holes and minor imperfections of surfaces, and which are applied at facilities located outside the counties of Door, Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington and Waukesha;

(j) Silk screening of metal parts and products at facilities located outside the counties of Door, Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington and Waukesha; or

(4) EMISSION LIMITATIONS -- PRETREATMENT COATS. This subsection applies to miscellaneous metal parts and products coating lines which are located outside the counties of Door, Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington and Waukesha. 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 425.05 or generate emission reduction credits in an emission reduction option.

(5)(intro.) EMISSION LIMITATIONS AND REQUIREMENTS -- HIGH PERFORMANCE ARCHITECTURAL COATINGS. This subsection applies to miscellaneous metal parts and products coating lines which were involved in the application of high performance architectural coatings, prior to July 1, 1983 and are located outside the counties of Brown, Calumet, Dane, Dodge, Door, Fond du Lac, Jefferson, Kenosha, Kewaunee, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha and Winnebago.

(b) The owner or operator of a miscellaneous metal parts and products coating line may demonstrate compliance with the emission limits of this subsection by demonstrating, on a daily basis, that the combined emission rate from all high performance architectural coatings is less than or equal to the allowable emission rate as determined by the equation in ~~s. NR 425.05(1)(b)2~~ s. NR 425.05(2)(b)2.

SECTION 26. NR 423.03(2)(a)1. and (f) are amended to read:

NR 423.03(2)(a)1. The degreaser is located outside the counties of Brown, Calumet, Dane, Dodge, Door, Fond du Lac, Jefferson, Kenosha, Kewaunee, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha and Winnebago, and

(f) The requirements of sub. (6)(a)2. do not apply to conveyORIZED non-vapor degreasers with a total horizontal solvent - air interface smaller than 2.0 square meters (21.6 square feet), where such an interface exists, or to

conveyorized non-vapor degreasers which are located outside the counties of Brown, Calumet, Dane, Dodge, Door, Fond du Lac, Jefferson, Kenosha, Kewaunee, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha and Winnebago.

SECTION 27. NR 423.03(7) is created to read:

NR 423.03(7) EQUIVALENT CONTROL. Any equivalent control system approved by the department under sub. (3)(d)3., (4)(c)5., (5)(c)3. or (6)(a)2.b. shall be submitted to, and will not become effective for federal purposes until approved by, 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 28. NR 423.04(2) is amended to read:

NR 423.04(2) EXEMPTIONS. The requirements of sub. (3)(a) do not apply to perchloroethylene dry cleaning facilities which provide satisfactory documentation to the department showing that an adsorber cannot be accommodated because of inadequate space or because insufficient steam capacity is available to desorb adsorbers. Any exemption determination made by the department under this subsection shall be submitted to, and will not become effective for federal purposes until approved by, 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 29. NR 423.05(1) is renumbered NR 423.05(1)(intro.) and amended to read:

NR 423.05(1)(intro.) 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 a petroleum liquid solvent dry cleaning ~~facilities~~ facility which ~~have the potential to emit VOCs from the facility 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 30. NR 423.05(1)(a) and (b) are created to read:

NR 423.05(1)(a) Has maximum theoretical emissions of VOCs from the facility greater than or equal to 25 tons per year and which is located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha, or

(b) Has maximum theoretical emissions of VOCs from the facility greater than or equal to 100 tons per year and which is located in the county of Door, Kewaunee, Manitowoc, Sheboygan or Walworth.

SECTION 31. NR 423.05(3) is created to read:

NR 423.05(3) COMPLIANCE SCHEDULES. (a) This subsection applies only to a petroleum liquid dry cleaning facility in existence on the effective date of this rule ... [revisor insert date] and:

1. Located in the county of Door, Kewaunee, Manitowoc, Sheboygan or Walworth, or

2. Located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha and which was not subject to this section prior to the effective date of this rule ... [revisor insert date].

(b) The owner or operator of any source identified under par. (a) 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 provide the name and location of the affected facility and include VOC emission data if necessary to support eligibility under this subsection.

2. Achieve final compliance with the requirements of this section no later than May 31, 1995.

SECTION 32. NR 424.04(1) is renumbered (1)(a) and amended to read:

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

SECTION 33. NR 424.04(1)(b) is created to read:

NR 424.04(1)(b) Effective the effective date of this rule ... [revisor insert date], this section applies to any aerosol can filling facility which:

1. Has maximum theoretical emissions of VOCs greater than or equal to 25 tons per year and is located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha, or



2. Has maximum theoretical emissions of VOCs greater than or equal to 100 tons per year and is located in the county of Door, Kewaunee, Manitowoc, Sheboygan or Walworth.

SECTION 34. NR 424.04(3) is repealed and recreated to read:

NR 424.04(3) COMPLIANCE REQUIREMENTS AND SCHEDULE. (a) This subsection applies only to an aerosol can filling facility which is in existence on the effective date of this rule ... [revisor insert date] and which is:

1. Located in the county of Door, Kewaunee, Manitowoc, Sheboygan or Walworth, or

2. Located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha and which was not subject to this section prior to the effective date of this rule ... [revisor insert date].

(b) The owner or operator of any source identified under par. (a) 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 provide the name and location of the affected facility and include VOC emission data if necessary to support eligibility under this subsection.

2. Achieve final compliance with the requirements of this section no later than May 31, 1995.

SECTION 35. NR 424.04(2) is amended to read:

NR 424.04(2) EMISSION LIMITATIONS. The owner or operator of an aerosol can filling facility shall install and operate a through-the-valve filling system on the aerosol can filling line, or install and operate a vapor

recovery system or other device approved by the department in order to reduce the amount of VOCs emitted from ~~an~~ the aerosol can filling line by at least 52% by weight, as compared to uncontrolled VOC emissions from the line. Compliance shall be measured by a flame ionization detector or other device approved by the department. Any approval of an alternative device issued by the department under this subsection shall be submitted to, and will not become effective for federal purposes until approved by, 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 36. NR 425.03(9) is repealed and recreated to read:

NR 425.03(9) LEATHER COATING. (a) This subsection applies only to a leather coating facility in existence on the effective date of this rule ... [revisor insert date] and:

1. Located in the county of Door, Kewaunee, Manitowoc, Sheboygan or Walworth, or

2. Located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha and which was not subject to this section prior to the effective date of this rule ... [revisor insert date].

(b) The owner or operator of any source identified under par. (a) 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 provide the name and location of the affected facility and include VOC emission data from coating applications if necessary to support eligibility under this subsection.

2. Achieve final compliance with the requirements of s. NR 422.085 no later than May 31, 1995.

SECTION 37. NR 425.03(12) and (13) are created to read:

NR 425.03(12) MISCELLANEOUS FACILITIES. (a) This subsection applies only to a facility which is in existence on the effective date of this rule ... [revisor insert date] and which:

1. Prior to the effective date of this rule ... [revisor insert date] was exempt from the requirements of ss. NR 422.04 to 422.155 under ss. NR 422.03(1) or (2), or

2. Is located in the county of Door or Kewaunee and which prior to the effective date of this rule ... [revisor insert date] was exempt from the requirements of ss. NR 422.05 to 422.08, 422.09 to 422.13, 422.15 or 422.155 under s. NR 422.03(3), or

3. Is located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha and which prior to the effective date of this rule ... [revisor insert date] was exempt from the requirements of s. NR 422.14 under s. NR 422.03(4), or

4. Fails to meet an emission limitation applicable under s. NR 422.14(2)(c) as a result of the amendment to s. NR 422.14(3) which became effective on the effective date of this rule ... [revisor insert date], or

5. Prior to the effective date of this rule ... [revisor insert date] was exempt from the requirements of s. NR 422.15 under s. NR 422.15(1)(e), (g) or (j), or

6. Fails to meet an emission limitation applicable under s. NR 422.15(2) or (3) as a result of the amendment to s. NR 422.15(5)(intro.) which became effective on the effective date of this rule ... [revisor insert date], or

7. Prior to the effective date of this rule ... [revisor insert date] was exempt from the requirements of s. NR 423.03(3) or (6) under s. NR 423.03(2)(a)1. or (f).

(b) The owner or operator of any source identified under par. (a) 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 provide the name and location of the affected facility and include information adequate to support eligibility for the schedule provided under this subsection.

2. Achieve final compliance with the applicable requirements no later than May 31, 1995.

(13) ALTERNATIVE OR EQUIVALENT METHODS. (a) This subsection applies only to a facility in existence on the effective date of this rule ... [revisor insert date] and which, prior to the effective date of this rule ... [revisor insert date], received written approval from the department to use an alternative or equivalent VOC control method as allowed in chs. NR 419 to 424, or received written approval from the department to use an alternative, equivalent or other specific method or procedure for determining compliance with emission limitations for an ozone precursor, as allowed in s. NR 439.06.

(b) The owner or operator of any source identified under par. (a) 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 provide the name and location of the affected facility and

shall include a copy of the department approval referred to in par. (a). A copy of the notification required under this subd. shall be maintained at the facility until at least 12 months after the effective date of this rule ... [revisor insert date].

2. No later than 12 months after the effective date of this rule ... [revisor insert date]:

a. Achieve compliance with the applicable control method specified under chs. NR 419 to 424 or the applicable reference method specified under ss. NR 439.06 to 439.095; or

b. Notify the department's bureau of air management in writing that it is the owner's or operator's intent to continue to use the approved alternative or equivalent method; or

c. Submit a written request to the department's bureau of air management for approval to use a proposed alternative or equivalent method as allowed in chs. NR 419 to 424 and s. NR 439.06.

(c)1. Upon receipt of a notification under par. (b)2.b., the department shall submit the approved alternative or equivalent method 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.

2. A request submitted under par. (b)2.c. shall be reviewed by the department and if approved, 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.

3. Notwithstanding par. (b)2.b. and c., unless or until an alternative or equivalent method as allowed in chs. NR 419 to 424 or s. NR 439.06 is

approved by 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, the applicable control methods specified under chs. NR 419 to 424 and reference methods specified under ss. NR 439.06 to 439.095 shall be federally enforceable 12 months after the effective date of this rule ... [revisor insert date].

SECTION 38. NR 425.04(4) is 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 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. Any approval issued by the department to apply the provision of this subsection to control devices other than natural gas fired afterburners or incinerators shall be submitted to, and will not become effective for federal purposes until approved by, 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 39. NR 425.05(1)(b)2. is repealed and recreated to read:

NR 425.05(1)(b)2. Establish a combined daily allowable emission rate from all coating and printing lines involved in the internal offset which is consistent with the U.S. environmental protection agency's "Emissions Trading Policy Statement; General Principles for Creation, Banking and Use of Emission Reduction Credits", 51 FR 43814, December 4, 1986, incorporated by reference in ch. NR 484; and

SECTION 40. NR 425.05(1)(c) is amended to read:

(c) Revocation. The department may, after notice and opportunity for hearing, revoke or modify any internal offset approved under this subsection when any term or condition of the approval has been violated, or for other reasons deemed necessary by the department. Any modification shall be submitted to, and will not become effective for federal purposes until approved by, 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 41. NR 439.03(7) is created to read:

NR 439.03(7) Any owner or operator of a coating or printing line achieving compliance by means of s. NR 422.04(1) shall, upon start-up of the line, or upon changing the method of compliance to s. NR 422.04(1), notify the department. The notification shall contain:

(a) The name and location of the facility.

(b) The name or identification number of each coating or printing line which will comply by means of s. NR 422.04(1).

(c) A description of the method by which the owner or operator will measure or calculate the volume of each coating or ink applied each day on each coating or printing line.

(d) An example of the format in which the records required under s. NR 439.04(5)(g) will be kept.

SECTION 42. NR 439.04(3) is repealed and recreated to read:

NR 439.04(3) Any owner or operator of an air contaminant source described under chs. NR 419 to 424 shall maintain records which demonstrate compliance with applicable emission limitations and operating requirements. Any owner or operator claiming to be exempt from an emission limitation or other requirement in chs. NR 419 to 424 shall maintain records adequate to support each exemption claim.

SECTION 43. NR 439.04(4) and (5) are created to read:

NR 439.04(4) Any owner or operator of a coating line or operation that is exempt from the emission limitations of ss. NR 422.05 to 422.155, under s. NR 422.03, shall collect and record the following information as appropriate to support the exemption:

(a) A unique name or identification number for each coating or ink, as applied;

(b) The VOC content of each coating or ink, as applied, in units of pounds of VOC per gallon, excluding water;

(c) The volume of coating or ink used per day, as applied, in units of gallons, excluding water;



(d) The total VOC emissions from all coating or printing lines or operations meeting the same applicability statement at the facility before the application of capture systems and control devices in units of pounds per day; and

(e) The maximum theoretical emissions of VOCs for all coating or printing lines or operations meeting the same applicability statement at the facility in units of tons per year.

(5)(a) Any owner or operator of a coating line or operation subject to an emission limitation in ss. NR 422.05 to 422.08, 422.09 to 422.12, 422.15 or 422.155 shall collect and record the following information for each coating line or operation:

1. A unique name or identification number for each coating, as applied;
2. The VOC content of each coating, as applied, in units of pounds of VOC per gallon, excluding water.

(b) Any owner or operator of a coating line or operation subject to the emission limitations of s. NR 422.085 shall collect and record the following information:

1. A unique name or identification number for each coating, as applied;
- and
2. The daily average VOC emission rate as calculated using the equation in s. NR 422.085(4)(b), and all information identified in s. NR 422.085(4)(b) and (c) necessary to calculate the daily average VOC emission rate.

(c) Any owner or operator of a coating line or operation subject to the emission limitations of s. NR 422.13 shall collect and record the following information:

1. A unique name or identification number for each coating, as applied;
2. The surface area in units of feet squared of coated finished product;

and

3. The amount of VOC per area of surface to which coatings are applied in units of pounds of VOC per 1000 ft<sup>2</sup>, regardless of the number of coats applied.

(d) Any owner or operator of a printing line or operation subject to the emission limitations of s. NR 422.14 shall collect and record the following information:

1. A unique name or identification number for each ink, as applied; and
2. The VOC content of each ink, as applied, expressed in units necessary to determine compliance.

(e) Any owner or operator of a coating or printing line or operation that is subject to an emission limitation in ss. NR 422.05 to 422.155, and that is achieving compliance with the applicable emission limitation by a method allowed under s. NR 422.04(2)(b), (c) or (d) shall, in addition to the applicable information required under pars. (a) to (d), collect and record the following information for each day of operation:

1. The allowable emission rate pursuant to ss. NR 422.05 to 422.155 in pounds per gallon of coating, excluding water;
2. The amount of each coating or ink in gallons, delivered to the applicator;
3. The volume fraction of solids in each coating or ink, delivered to the applicator;
4. The density of the VOC used in each coating or ink in pounds per gallon, delivered to the applicator;

5. The total allowable emissions as calculated under s. NR 422.04(4);

6. The actual emissions for those coatings or inks for which allowable emissions were calculated under s. NR 422.04(4), when considering the control device;

7. Control device monitoring data;

8. A log of operating time for the capture system, control device, monitoring equipment and the associated coating or printing line or operation; and

9. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.

(f) Any owner or operator of a surface coating or printing facility that is subject to one or more emission limitations in ss. NR 422.05 to 422.15, and that is achieving compliance with the applicable emission limitation or limitations by internal offsets as allowed under s. NR 422.05 shall, in addition to the applicable information required under pars. (a) to (d), collect and record the following information for each day of operation for each coating or ink involved in the internal offset:

1. The amount of coating material or ink in gallons, delivered to the applicator;

2. The volume fraction of solids in the coating or ink, delivered to the applicator; and

3. The density of the VOC used in the coating or ink in pounds per gallon, delivered to the applicator.

(g) Any owner or operator of a surface coating or printing line that is subject to an emission limitation in ss. NR 422.05 to 422.155, and that is

achieving compliance with the applicable emission limitation by in-line averaging as allowed under s. NR 422.04(1) shall, in addition to the information required under pars. (a) and (d), collect and record the following information for each day of operation for each coating or printing line:

1. When achieving compliance under s. NR 422.04(1)(a):

a. The name or identification number of each coating applied on each coating line.

b. The volume of each coating applied in gallons, excluding water.

c. The daily volume-weighted average VOC content of all coatings applied on each coating line as defined in s. NR 422.04(1)(a).

2. When achieving compliance under s. NR 422.04(1)(b)1.:

a. The name or identification number of each ink applied on each printing line.

b. The volume of each ink applied in gallons.

c. The daily volume-weighted average VOC content of all inks applied on each printing line as defined in s. NR 422.04(1)(b)1.

3. When achieving compliance under s. NR 422.04(1)(b)2.:

a. The name or identification number of each ink applied on each printing line.

b. The volume of each ink applied in gallons, excluding water.

c. The daily volume-weighted average VOC content of all inks applied on each printing line as defined in s. NR 422.04(1)(b)2.

SECTION 44. NR 439.06(intro.) and (3)(e) are amended to read:

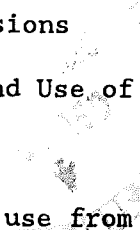
NR 439.06(intro.) METHODS AND PROCEDURES FOR DETERMINING COMPLIANCE WITH EMISSION LIMITATIONS (BY AIR CONTAMINANT). When tests or a continuous

monitoring system are required by the department, the owner or operator of a source shall use the reference methods listed in this section and in ss. NR 439.07 to 439.095 to determine compliance with emission limitations, unless an alternative or equivalent method is approved, or a specific method is required, in writing, by the department. Any alternative, equivalent or other specific method approved or required by the department for an ozone precursor shall be submitted to, and will not become effective for federal purposes until approved by, 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. 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 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)(e) ~~The equations in~~ An equation established under s. NR 425.05(1)(b)2. or contained in (2)(b)2. shall be used to determine compliance with an internal offset.

SECTION 45. NR 484.05(1m) is created to read:

NR 484.05(1m) The U.S. environmental protection agency's "Emissions Trading Policy Statement; General Principles for Creation, Banking and Use of Emission Reduction Credits", 51 FR 43814, December 4, 1986 for s. NR 425.05(1)(b)2. Copies of this document may be obtained for personal use from



the U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, MD-15, Research Triangle Park, NC 27711.

SECTION 46. NR 484.05(3)(b) is amended to read:

NR 484.05(3)(b) Standard Industrial Classification Manual, 1987, NTIS order no. PB 87-100012, for ~~ss.~~ NR 422.15(1)(intro.) and 438.02(1).

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on July 29, 1993.

The rule shall take effect on 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

September 21, 1993

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By

George E. Meyer  
George E. Meyer, Secretary

(SEAL)

