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

The Wisconsin Natural Resources Board adopts an order to **repeal** NR 400.02(61m), 405.02(5), 405.04(3), 415.09(1)(a) to (e), 417.06(3), 417.07(6)(a)1. to 5. and (b) to (d) and (9), 418.025(2)(intro.) and (a) to (e), 418.03(2)(intro.) and (a) to (e), 418.04(2)(a) to (e), 418.05(2), (3)(a) to (e), 418.06(2)(b) to (e), 418.07(2)(intro.) and (a) to (e), 421.04(4), 422.05(3), 422.09(2)(c), (3)(a), (c), (e), (f) and (h) and (4)(a), (c) and (e), 423.03(6)(b)1. to 5., 424.03(2)(b)1. and 2., 425.03(2)(a)1. to 5. and (b), (3)(a)1. to 7., (c)2., (d)1. to 4., (e)1. to 6. and (f), (4)(a)1. to 5. and (b), (5)(a)1. to 4., (b) and (c) and (6)(b)1. to 3., 439.095(2)(a) and (b), 447.02(4), 484.03(5) and (6), 484.11(1)(c), 485.045(1)(a), 488.06(1)(d) Note and 493.02(2); to **renumber** NR 400.02(100)(u), 411.02(6) and Note, 418.06(2)(f), 419.02(1m), (1p), (1s), (1t), (1u), (2), (3), (3c), (3e), (3m), (4), (6), (6m) and (7), 420.02(28), 421.02(2e) to (13), 422.02(1e) to (6), (7m) to (11m), (12d) to (33j), (34) to (47e), (48) to (52) and 499.07(2)(a) to (m); to **renumber and amend** NR 417.07(6)(a)(intro.), 418.025(2)(f), 418.03(2)(f), 418.07(2)(f), 419.02(8), 422.02(7), (12), (33m) and (47m), 424.03(2)(b)(intro.), 425.03(2)(a)(intro.), (4)(a)(intro.) and (5)(a)(intro.) and 499.07(2)(n)(intro.); to **amend** NR 30.03(2)(f), 30.04(2)(f), 400 Note, 400.02(41), (77), (79), (90) and (100)(t), 400.03(2), 401.04, 404.04(2)(a)1. and 2. and (6), 404.06(1)(a) and (4)(b), 405.01(2) Note, 405.02(1)(d), (2)(intro.), (3)(intro.) and (a), (4)(a)(intro.), 1. and 2. and (b)1. and 2., (7), (12), (21)(intro.), (b)3. and 5.a. and b., 6. and 8.a., (22)(a)1. and 2., (24)(d), (25g)(b) and (d), (25m)(a) and (c), (25s)(intro.) and (a), (27)(c) and (28), 405.04(1)(a) and (e), (4)(intro.) and (a), 405.05(1), (4)(intro.), (5) and (6), 405.07(3), (4)(intro.) and (b)27. and (5), 405.08(3), 405.10(4), 405.14(1), (2) and (4) 405.15(2)(d), 406.04(1)(intro.), (g), (h), (j) and (2)(intro.), (c), (f)3m., (h) and (i), (4)(a)6., 406.11(1)(f), 407.03(1)(g), (h), (o), (2)(b) and (4), 407.05(4)(c)1. and Table 2 footnote 8, 407.09(4)(a)3.c., 408.02(4), (20)(e)5.a. and b. and (21)(intro.), 409.02(76)(intro.), 409.06(8)(d), 415.02(5), 415.04(1)(b), (2)(a)(intro.), (b)(intro,) and (c)(intro.), (3)(a) and (4)(b), 415.05(2), 415.07(1)(a)(intro.), (b)(intro.) and 2., 415.075(2)(a)5., 415.08(1), 415.09(1)(intro.) and (3), 417.01(1), 417.02(intro.), 417.06(1) and (2), 417.07(7)(a)(intro.) and 1. to 3., 418.01(1), 418.04(1)(a)2. and (2)(intro.), 418.05(3)(intro.) and (4)(intro.), 418.06(2)(intro.), 419.02(intro.), 420.02(intro.), 420.03(1)(b), 420.035(2)(b) and (3)(c), 420.04(2)(a)(intro.) and 2., 420.045(1)(a), (b)(title), (c), (d)1.(intro.) and (e) and (10)(intro.), 421.02(intro.), 421.05(2)(a)(intro.), (2)(e)1. and 2., 421.06(2)(e)1. and 2., 422.03(intro.), (2), (3), (4), (4m)(b) and (c) and (5)(intro.), 422.04(1)(a), (2)(intro.) and (3)(b)(intro.), 422.132(1)(intro.) and (2)(b), 422.14(2)(c)(intro.), 423.02(intro.), 423.03(4)(intro.) and (m), (5)(intro.), (6)(a)(intro.) and (b)(intro.) and (9), 424.03(1)(a)3. and 4., 425.03(3)(a)(intro.), (b), (d)(intro.), (e)(intro.), (6)(b)(intro.), (7)(e), (7m)(intro.) and (a) and (8), 425.035(2)(f) and (3)(a)3. Note, 425.04(1)(b), 426.04, 429.02(intro.) and (1), 436.02(intro.), 436.05(2)(b) and (5), 438.03(1)(b) and Table 1, 439.03(1)(c) and (4)(a)(intro.), 439.075(2)(a)(intro.) and 4., 439.095(2)(intro.), 445.01(1), 445.02(intro.), (2) and (6), 445.04(3)(c)6., (4r)(a)Note and (b)4., (6)(a)(intro.), (b)4. and Tables 2, 3 and 5, 445.05(3)(a) and (c)7., (4r)(b)4. and (6)(bm)4.(intro.), (c) and (e), 447.02(intro.), (16) and (18) Note, 447.07(3)(a) and (d)(intro.), 447.12(3)(b) Note, 447.16(2) 447.18(1) Note, 448.02(intro.), 448.04(2), 449.02(intro.), 449.09(6)(a)3. and 4., (d)2. and (e)1.(intro.), 449.12(3)(a) and (b)5., 484.04(18), 484.05(3), 484.11(1)(a), 488.02(2) Note, 488.03(3)(b) Note, 488.04(3) Note, 488.08, 488.11(1)(b), 493.02(intro.), 493.04(2) and (3), 499.06(2)(intro.), (e) and (g) and 499.07(2)(intro.); and to **create** NR 400.02(53s) Note, (100)(u) and (v), 405.02(21m), (22m), 406.04(7), 419.02(10), 421.05(2)(e)3., 421.06(2)(e)3., 422.03(7), 424.03(2)(c), 425.03(14), 436.05(2)(bm) and 484.04(18m) relating to clarification and cleanup changes in NR 30 and throughout the NR 400 series.

AM-9-95

Analysis Prepared by the Department of Natural Resources

Authorizing statutes: ss. 144.31(1)(a), 144.391(6) and 227.11(2)(a), Stats.

Statutes interpreted: s. 144.31(1)(f), Stats. The State Implementation Plan developed under that provision is revised.

These rule changes affect Wisconsin's existing environmental protection air pollution control rules. Changes affecting most elements of the air pollution control program are made, including; definition of terms, permitting, compliance schedules, emission testing, emission limitations, emission monitoring and incorporation by reference. These changes also affect diverse source categories and pollutants. However, these changes are of a cleanup nature, and are intended to correct errors in content or style, or to improve consistency or clarify existing policy or procedures.

The consent of the Attorney General and the Revisor of Statutes will be sought for the incorporation by reference of two appendicies in Title 40 of the Code of Federal Regulations containing test methods and the incorporation by reference of a previously approved document from the American Conference of Governmental Industrial Hygienists for two additional citations.

SECTION 166. NR 449.02(intro.) is amended to read:

NR 449.02 DEFINITIONS. (intro.) ~~In addition to the definitions in this chapter~~, ~~the~~ The definitions contained in chs. NR 400 and 445 apply to the terms used in this chapter. In addition, the following definitions apply to the terms used in this chapter:

SECTION 167. NR 449.09(6)(a)3. and 4., (d)2. and (e)1.(intro.) are amended to read:

NR 449.09(6)(a)3. For gas streams containing more than 10% oxygen the concentration of vinyl chloride as determined by ~~Test~~ Method 106 shall be corrected to 10% oxygen (dry basis) for determination of emissions by using the following equation:

$$C_{b\,(corrected)} = C_b \frac{10.9}{20.9 - \text{percent } O_2}$$

where:

$C_{b\,(corrected)}$ is the concentration of vinyl chloride in the exhaust gases, corrected to 10% oxygen~~,~~

C_b is the concentration of vinyl chloride as measured by ~~Test~~ Method 106

20.9 ~~equals~~ is the percent oxygen in the ambient air at standard conditions

10.9 is the percent oxygen in the ambient air at standard conditions minus the 10% oxygen to which the correction is being made

percent O_2 is the percent oxygen in the exhaust gas as measured by ~~Reference~~ Method 3 of 40 CFR part 60, Appendix A, incorporated by reference in ~~ch. NR 484.~~ s. NR 484.04

4. For those emission sources where the emission limit is prescribed in terms of mass rather than concentration, mass emissions in kilograms~~/~~ per 100 kilograms product shall be determined by using the following equation:

$$C_{BX} = [C_b(2.60)Q(10^{-6})]\ [100]/Z$$

where:

C_{BX} ~~equals~~ is the ~~kilograms~~ kg vinyl chloride/100 ~~kilograms~~ kg product

C_b is the concentration of vinyl chloride as measured by ~~Test~~ Method 106

2.60 equals the density of vinyl chloride at one atmosphere and 20EC in ~~kilograms/cubic meter~~ kg/m^3

Q is the volumetric flow rate in ~~cubic meters/hour~~ m^3/hr as determined by ~~Reference~~ Method 2 of 40 CFR part 60, Appendix A, incorporated by reference in ~~ch. NR 484~~ s. NR 484.04

10^{-6} is the conversion factor for parts per million

Z is the production rate (kilograms/hour)

(d)2. ~~Test~~ Method 107 of 40 CFR part 61, Appendix B, incorporated by reference in ~~ch. NR 484~~ s. NR 484.04, shall be used to determine the concentration of vinyl chloride in each inprocess wastewater stream subject to the emission limit prescribed in s. NR 449.06(5). The mass of vinyl chloride in kilograms~~/~~ per 100 kilograms product in each inprocess wastewater stream shall be determined by using the following equation:

$$C_{BX} = [C_dR(10^{-6})]\ [100]/Z$$

where:

C_{BX} ~~equals~~ is the ~~kilograms~~ kg vinyl chloride/100 ~~Kg~~ kg product

C_d is the concentration of vinyl chloride as measured by ~~Test~~ Method 107 of 40 CFR part 61, Appendix B~~,~~ ~~incorporated by reference in ch. NR 484~~

R is the water flow rate in ~~liters/hour~~ l/hr determined in accordance with a method which has been submitted to and approved by the department

10^{-6} is the conversion factor for parts per million

Z is the production rate ~~(kilograms/hour)~~ (kg/hr), determined in accordance with a method which has been submitted and approved by the department

(e)1.(intro.) Except as provided in subd. 2., the vinyl chloride reactor opening loss shall be determined using the following equation:

$$C = W(2.60)(10^{-6})(C_b)/YZ$$

where:

C ~~equals~~ is the ~~kilogram~~ kg vinyl chloride emissions/~~kilogram~~kg product

W is the capacity of the vinyl chloride reactor in ~~cubic meters~~ m^3

2.60 is the density of vinyl chloride at one atmosphere and 20EC in ~~kilogram/cubic meters~~ kg/m^3

10^{-6} is the conversion factor for ~~parts per million~~ ppm

C_b ~~equals parts per million~~ is ppm by volume vinyl chloride as determined by ~~Test~~ Method 106 of 40 CFR part 61, Appendix B, incorporated by reference in ~~ch. NR 484~~ s. NR 484.04, or by a portable hydrocarbon detector which measures hydrocarbons with a sensitivity of at least 10 ~~parts per million~~ ppm

Y is the number of batches since the vinyl chloride reactor was last opened to the atmosphere

Z is the average ~~kilogram~~ kg of polyvinyl chloride produced per batch in the ~~number of~~ batches since the vinyl chloride reactor was last opened to the atmosphere

SECTION 168. NR 449.12(3)(a) and (b)5. are amended to read:

NR 449.12(3)(a) The owner or operator shall include in the report a record of any emissions which averaged over any hour period (commencing on the hour) are in excess of the emission limits prescribed in s. NR 449.04(1) or (2), 449.05(1) or 449.06(1)(a), (2), (3) or (4), or for any control system to which reactor emissions are required to be ducted in s. NR 449.06(1)(b) or to which fugitive emissions are required to be ducted in s. NR 449.07(2)(a)2., (b), (e), (f)2. or (i)2. The emissions shall be measured in accordance with s. NR 449.10.

(b)5. The report to the department by the owner or operator shall include the vinyl chloride content found in each sample required by subds. 1. and 2., averaged separately for each type of resin, over each calendar day

and weighted according to the quantity of each grade of resin processed by the stripper or strippers that calendar day, according to the following equation:

$$A_{Ti} = \frac{\sum_{i=1}^{n} P_{Gi}M_{Gi}}{Q_{Ti}} = \frac{P_{G1}M_{G1} + P_{G2}M_{G2} + \ldots + P_{Gn}M_{Gn}}{Q_{Ti}}$$

where:

A_{Ti} is the 24-hour average concentration of type T_i resin in ppm (dry weight basis)

Q_{Ti} is the total production of type T_i resin over the 24-hour period in kilograms

T_i is the type of resin

~~$i = 1, 2 \ldots m$ where m is total number of resin types produced during the 24-hour period~~

M_{Gi} is the concentration of vinyl chloride in one sample of grade G_i resin in parts per million

P_{Gi} is the production of grade G_i resin represented by the sample in kilograms

G_i is the grade of resin (e.g., G_1, G_2 and G_3)

n is the total number of grades of resin produced during the 24-hour period