

CR 94-213



George E. Meyer  
Secretary

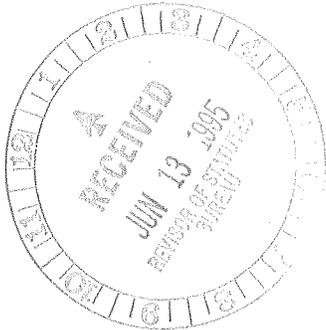
State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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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-47-94 was duly approved and adopted by this Department on March 23, 1995. 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 hereunto set my hand and affixed the official seal of the Department at the Natural Resources Building in the City of Madison, this 8th day of June, 1995.

George E. Meyer  
George E. Meyer, Secretary

(SEAL)

9-1-95



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



The Wisconsin Natural Resources Board adopts an order to **renumber** NR 422.02(1); to **amend** NR 422.02 (intro.) and (47), 422.03(1) and (3) and 484.05(1); and to **create** NR 422.02(1), (1x), (3m), (12d), (33j), (34s), (34v), (37s), (42n), (43m), (44m), (47e) and (49m) and 422.095 relating to the control of volatile organic compound emissions from autobody refinishing.

AM-47-94

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. The State Implementation Plan developed under that provision is revised.

This rule is created to reduce volatile organic compound (VOC) emissions in the ozone nonattainment area from motor vehicle refinishing operations by requiring the use of coatings which meet the VOC emission limits specified in a table of standards for specified product categories and by requiring the use of spray gun cleaning equipment and specific spray application equipment.

SECTION 1. NR 422.02 (intro.) is amended to read:

NR 422.02 DEFINITIONS. ~~In addition to the definitions in this section, the~~ The definitions contained in chs. NR 400, 419, ~~420~~ and 421 apply to the terms used in this chapter. In addition, the following definitions apply to the terms used in this chapter:

SECTION 2. NR 422.02(1) is renumbered 422.02(1s).

SECTION 3. NR 422.02(1), (1x), (3m), (12d), (33j), (34s), (34v), (37s), (42n), (43m) and (44m) are created to read:

NR 422.02(1) "Adhesion promoter" means a coating used to promote adhesion of a topcoat on surfaces such as trim moldings, door locks and door sills, where sanding is impractical.

(1x) "Antiglare/safety coating" means a low gloss coating formulated to eliminate glare for safety purposes on interior surfaces of a vehicle, as specified under the U.S. department of transportation standard for reflecting surfaces in 49 CFR 571.107, as in effect on October 1, 1994.

(3m) "Basecoat-clear coat system" means a topcoat system composed of a pigmented coating followed by a clear coat.

(12d) "Elastomeric coatings" means coatings that are specifically formulated for application over flexible parts such as filler panels and elastomeric bumpers.

(33j) "Precoat" means any coating which is applied to bare metal primarily to deactivate the metal surface for corrosion resistance to a subsequent water-base prime coat.

(34s) "Primer sealer" means a coating, applied subsequent to the prime coat or primer surfacer, that improves the adhesion of the topcoat, provides corrosion resistance and prevents solvents from the topcoats from penetrating into the prime coat or primer surfacer coating.

(34v) "Primer surfacer" means a coating which fills in irregularities, and is intentionally thick enough to permit sanding without cutting through to bare metal.

(37s) "Refinishing" means any coating of motor vehicles, their parts and components, including parts or components replaced in body collision repairs, for the purpose of protection or beautification and which is subsequent to the original coating applied at the plant where the equipment was manufactured.

(42n) "Specialty coatings" means coatings used only for discrete portions of the vehicle, such as bumpers or spot repairs, which are necessary due to unusual coating performance requirements. Specialty coatings include, but are not limited to, adhesion promoters, uniform finish blenders, elastomeric coatings, gloss flatteners, bright metal trim repair, and antiglare/safety coatings.

(43m) "Surface preparation products" means products used to remove wax, tar, grease and silicone from the surface to prepare the surface for refinishing.

(44m) "Three or four stage coating system" means a topcoat system composed of a pigmented coating, one or two semi-transparent midcoats, and a clear coat.

SECTION 4. NR 422.02(47) is amended to read:

NR 422.02(47) "Topcoat" means a coating or coating system in which one or more coats are applied over a prime coat or basecoat for purposes of appearance, identification or protection of the substrate.

SECTION 5. NR 422.02(47e) and (49m) are created to read:

NR 422.02(47e) "Touch-up coating" means a coating applied by brush or hand held, non-refillable aerosol cans to repair minor surface damage and imperfections.

(49m) "Uniform finish blender" means a thinner or low solids clear solution which is used to blend overspray from a repaired area into the unrepaired color.

SECTION 6. NR 422.03(1) and (3) are amended to read:

NR 422.03(1) Any surface coating process line which meets the specific applicability requirements of ss. NR 422.04 to 422.09 and 422.10 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 with all emission control equipment inoperative.

(3) Surface coating facilities as described under ss. NR 422.05 to 422.08, 422.09, 422.10 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.

SECTION 7. NR 422.095 is created to read:

NR 422.095 MOTOR VEHICLE REFINISHING OPERATIONS. (1) APPLICABILITY. This section applies to motor vehicle refinishing operations performed in the following types of facilities in the counties of Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington and Waukesha: auto body and repair shops; production paint shops; new and used motor vehicle dealer repair and paint shops; fleet operator repair and paint shops; and any facility which coats vehicles and is classified under standard industrial classification code 7532, as described in the Standard Industrial Classification Manual, 1987, incorporated by reference in s. NR 484.05, including dock repair of imported vehicles and dealer repair of vehicles damaged in transit.

(2) EXEMPTIONS. (a) Motor vehicle refinishing operations at facilities which use less than 20 gallons per year of coatings are exempt from the equipment requirements in subs. (5) and (6)(e).

(b) The application of touch-up coatings is exempt from this section.

(c) Motor vehicle refinishing operations at educational institutions are exempt from the recordkeeping requirements under sub. (8).

(3) NOTIFICATION. (a) The owner or operator of a motor vehicle refinishing operation in existence on the effective date of this section . . . [revisor insert date] and subject to this section shall submit a notification to the department, in writing, within 60 days of the effective date of this section . . . [revisor insert date] consisting of the following information:

1. Name, address and phone number of facility where refinishing operations are taking place.

2. Name and phone number of the responsible party at the facility.

(b) The owner or operator of a motor vehicle refinishing operation which becomes subject to this section after the effective date of this section . . . [revisor insert date] shall submit a written notification to the department containing the information specified in par. (a) within 30 days after becoming subject to this section.

Note: Notifications submitted under this subsection should be submitted to:  
Wisconsin Department of Natural Resources

Bureau of Air Management  
PO Box 7921  
Madison WI 53707-7921  
Attn: Compliance Section

(4) EMISSION LIMITATIONS - COATINGS. (a) After January 1, 1996, no owner or operator of a motor vehicle refinishing operation may refinish or allow the refinishing of any motor vehicles or their body parts and components using any coating or coating system with a VOC content in excess of that specified in Table 1. All coatings shall be used according to manufacturer's specifications.

Table 1  
VOC Content Limitations for Coatings Used in  
Motor Vehicle Refinishing Operations

[kilograms/liter (pounds/gallon) of coating, excluding water, as applied]

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| <u>Type of Coating</u>                | <u>Maximum VOC Content</u> |
|---------------------------------------|----------------------------|
| Pretreatment coat                     | 0.78 (6.5)                 |
| Precoat                               | 0.66 (5.5)                 |
| Prime coat/primer surfacer            | 0.58 (4.8)                 |
| Primer sealer                         | 0.55 (4.6)                 |
| Topcoat or basecoat-clear coat system | 0.60 (5.0)                 |
| Three or four stage topcoat system    | 0.63 (5.2)                 |
| Specialty coatings                    | 0.84 (7.0)                 |

(b) The VOC content of a basecoat-clear coat system shall be calculated according to the following formula:

$$\text{VOC}_{b/c} = [\text{VOC}_b + 2(\text{VOC}_c)]/3$$

where:

$VOC_{b/c}$  is the as applied VOC content of a basecoat-clear coat system in kilograms per liter (pounds per gallon), excluding water

$VOC_b$  is the as applied VOC content in kilograms per liter (pounds per gallon), excluding water, of the basecoat used

$VOC_c$  is the as applied VOC content in kilograms per liter (pounds per gallon), excluding water, of the clear coat used

(c) The VOC content for a 3 or 4 stage coating system shall be calculated according to the following formula:

$$VOC_T = [VOC_b + \sum_{m=1}^{N-2} VOC_m + 2(VOC_c)] / (N + 1)$$

where:

$VOC_T$  is the as applied VOC content of a basecoat, midcoat and clear coat system in kilograms per liter (pounds per gallon), excluding water

$VOC_b$  is the as applied VOC content in kilograms per liter (pounds per gallon), excluding water, of the basecoat used

$VOC_m$  is the as applied VOC content in kilograms per liter (pounds per gallon), excluding water, of each midcoat used

$VOC_c$  is the as applied VOC content in kilograms per liter (pounds per gallon), excluding water, of the clear coat used

N is 3 for a 3 stage coating system or 4 for a 4 stage coating system

(5) APPLICATION EQUIPMENT. After January 1, 1996, no owner or operator of a motor vehicle refinishing operation may refinish or allow the refinishing of any motor vehicles or their body parts and

components unless one of the following types of application equipment is used in accordance with the manufacturer's recommendations:

- (a) Electrostatic application equipment.
- (b) Low-pressure spray method application equipment.

(6) SURFACE PREPARATION AND CLEANUP SOLVENT. After January 1, 1996, the owner or operator of a motor vehicle refinishing operation shall:

(a) On plastic substrates, use only surface preparation products with a VOC content of less than or equal to 0.78 kilograms per liter (6.5 pounds per gallon), as applied.

(b) On non-plastic substrates, use only surface preparation products with a VOC content of less than or equal to 0.17 kilograms per liter (1.4 pounds per gallon), as applied.

(c) Use closed containers for the storage or disposal of applicators used to apply solvents for surface preparation or cleanup.

(d) Use closed containers for the storage of waste paint, spent solvent, and sludge from spray gun cleaners or in-house distillation units until properly disposed. Proper disposal includes releasing wastes to a reclaiming or hazardous waste management facility licensed under ch. NR 680, or recycling with an in-house distillation unit.

(e) Clean spray equipment, including paint lines, with a device that recirculates or reuses the solvent during the cleaning process, except for the final rinse which may be done with clean solvent, and collects solvent in a closed container.

(f) For facilities exempt under sub. (2)(a) from the requirements of par. (e), collect solvent used to clean spray equipment and paint lines in a closed container for proper disposal.

(7) SPECIALTY COATINGS. No owner or operator of a motor vehicle refinishing operation may apply or allow the application of a specialty coating for any reason other than the manufacturer's intended purposes.

(8) RECORDKEEPING REQUIREMENTS. (a) In addition to the recordkeeping requirements under s. NR 439.04, the owner or operator of any motor vehicle refinishing operation shall maintain records of the amount and category of each coating purchased each month, based on the categories in Table 1.

(b) All records required under this subsection shall be retained for the most recent consecutive 60 month period during which coating material was purchased and shall be made available for inspection by the department.

Note: The provisions of this subsection shall be revised or repealed after emission standards for motor vehicle refinishing operations have been promulgated by EPA and have become effective on a nationwide basis.

SECTION 8. NR 484.05(1) in Table 3 is amended to read:

| Document Reference                             | Document Title                                     | Incorporated by Reference For  |
|--|--|--|
| NR 484.05(1) NTIS<br>Order No.<br>PB 87-100012 | Standard Industrial<br>Classification Manual, 1987 | NR 400.02(47m)<br>NR 400.02(51m)<br>NR 400.02(91)<br>NR 405.02(8)<br>NR 407.02(17)(intro.)<br>NR 407.05(4)(b)<br>NR 408.02(5)<br>NR 410.02(4)<br>NR 421.02(2e)<br>NR 421.02(11e)<br><u>NR 422.095(1)</u><br>NR 422.15(1)(intro.)<br>NR 438.02(1) |

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on March 23, 1995.

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

Dated at Madison, Wisconsin June 8, 1995

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By George E. Meyer  
George E. Meyer, Secretary

(SEAL)

