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TITLE 326 AIR POLLUTION CONTROL BOARD

SECOND NOTICE OF COMMENT PERIOD

#04-181(APCB)

DEVELOPMENT OF NEW RULES CONCERNING NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SURFACE COATING OF MISCELLANEOUS METAL PARTS AND PRODUCTS AND SURFACE COATING OF PLASTIC PARTS AND PRODUCTS

PURPOSE OF NOTICE

The Indiana Department of Environmental Management (IDEM) is soliciting public comment on new rules concerning national emission standards for hazardous air pollutants for surface coating of miscellaneous metal parts and plastic parts. IDEM seeks comment on the affected citations listed and any other provisions of Title 326 that may be affected by this rulemaking.

CITATIONS AFFECTED: 326 IAC 20-80; 326 IAC 20-81.

AUTHORITY: IC 13-14-8; IC 13-14-9-7; IC 13-17-3-4; IC 13-17-3-11.

SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING

Basic Purpose and Background

The 1990 Amendments to the Clean Air Act require the United States Environmental Protection Agency (U.S. EPA) to regulate major sources of hazardous air pollutants (HAPs). A major source is defined as any stationary source or group of stationary sources located within a contiguous area and under common control that has the potential to emit, considering controls, ten (10) tons per year or more of any single HAP or twenty-five (25) tons per year or more of any combination of HAPs. HAPs are listed by U.S. EPA because they are either known or suspected to cause cancer or other serious health effects. There are currently one hundred eighty-eight (188) HAPs listed in the Clean Air Act. On July 16, 1992, U.S. EPA published a list of industrial groups or source categories that emit one (1) or more of the one hundred eighty-eight (188) listed HAPs (57 FR 311576). The Clean Air Act requires U.S. EPA to develop emission standards, referred to as national emission standards for hazardous air pollutants (NESHAPs), that require the application of air pollution reduction measures based on maximum achievable control technology (MACT) for the listed source categories. The "MACT floor" is the minimum control level allowed for NESHAPs and ensures that the standard is set at a level that assures that all existing major sources achieve a level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source.

On January 2, 2004, U.S. EPA promulgated the NESHAP for surface coating of miscellaneous metal parts and products and on April 19, 2004, U.S. EPA promulgated the NESHAP for surface coating of plastic parts and products. In this rulemaking, IDEM is proposing to incorporate by reference those federal rules into state rules. A description of the federal rules follows.

Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63, Subpart Mmmm)

Surface coating is a process of applying a protective, decorative, or functional coating to a substrate. Coating materials include, but are not limited to, paints, stains, sealers, topcoats, basecoats, primers, inks, and adhesives. Metal parts and products include operations that cover a wide variety of metals that are located at a major source of HAPs. Many sources may be exempt if already subject to another surface coating NESHAP. Asphalt and coal tar applications to metal pipes are also included in this NESHAP. There are five (5) subcategories: general use coating, high performance coating, magnet wire coating, rubber-to-metal coating, and extreme performance fluoropolymer coating. Emission points include the surface coating application process, drying and curing operations, mixing and thinning operations, and cleaning operations.

The organic HAPs emitted by sources include xylenes, toluene, methyl ethyl ketone (MEK), phenol, cresols, glycol ethers, styrene, methyl isobutyl ketone (MIBK), and ethyl benzene. Exposure to these HAPs has been demonstrated to irritate the lung, skin, and mucous membranes and effect the central nervous system, liver, and heart. HAP emissions will be reduced nationally by forty-eight percent (48%) from 1997 emission base levels. There are at least one hundred fourteen (114) potential Indiana sources. About forty-five percent (45%) of the sources are located in nonattainment counties for eight (8) hour ozone standard. Many of the HAPs are volatile organic compounds (VOCs) and their reduction due to the NESHAP will also reduce ozone. Sources must comply with the

NESHAP by January 2, 2007.

Surface Coating of Plastic Parts and Products (40 CFR 63, Subpart PPPP)

Plastic parts and products include plastic components of motor vehicle parts and accessories, sporting and recreational products, toys, business machines, laboratory and medical equipment, and household and consumer products. Operations covered by this NESHAP are divided into four (4) subcategories: assembled on-road vehicle coating; general use coating; thermoplastic olefin coating; and automotive lamp coating. Emission limits would be set for all surface coating operations that use more than one hundred (100) gallons of coatings per year in the surface coating of plastic parts and products and are located at a major source of HAPs. Many sources may be exempt if already subject to another surface coating NESHAP.

The organic HAPs emitted by sources include xylenes, toluene, methyl ethyl ketone (MEK), phenol, cresols, glycol ethers, styrene, methyl isobutyl ketone (MIBK), and ethyl benzene. Exposure to these HAPs has been demonstrated to irritate the lung, skin, and mucous membranes and effect the central nervous system, liver, and heart. Emissions nationally will be reduced by eighty percent (80%) from estimated 1997 baseline levels. There are at least seventy (70) potential Indiana sources. Nearly half of the sources are located in nonattainment counties for the eight (8) hour ozone standard. Many of the HAPs are volatile organic compounds (VOCs) and their reduction due to the NESHAP will also reduce ozone. Sources must comply with the NESHAP by April 19, 2007.

Identification of Restrictions and Requirements Not Imposed Under Federal Law

The draft rule includes a requirement for operator training that is “not imposed under federal law” (NIFL element).

The following information is provided for the NIFL element:

- (1) The environmental circumstance or hazard dictating the imposition of the NIFL element in order to protect human health and the environment in Indiana; and examples in which federal law is inadequate to provide this protection for Indiana.
- (2) The estimated fiscal impact and expected benefits of the NIFL element, based on the extent to which the NIFL element exceeds the requirements of federal law.
- (3) The availability for public inspection of all materials relied on by IDEM in the development of the NIFL element including, if applicable: health criteria, analytical methods, treatment technology, economic impact data, environmental assessment data, analyses of methods to effectively implement the proposed rule, and other background data.

NIFL Element: Operator training for spray coating (326 IAC 20-80-2; 326 IAC 20-81-2)

(1) Spray coatings are applied by using a spray gun in a spray booth. In a spray booth, volatile organic compounds evaporate from the coating as it is applied to the part and from the overspray. The more efficient the transfer of paint to the substrate being painted, the lesser amount of volatile organic compounds are released.

These two (2) NESHAPs apply to sources and parts not covered by other surface coating NESHAPs and cover a wide variety of parts to be surface coated. These two (2) NESHAPs include some sources that are therefore less familiar with federal surface coating regulations and would benefit from general operator spray coating training. Other surface coating NESHAPs are aimed at a specific industry that has developed specialized coating techniques and have people designated for training and would benefit less from general operator training compared to some of the sources subject to the two (2) NESHAPs in this rulemaking.

In a project that investigated the effects of hands-on operator training on the transfer efficiency of manually applied, air atomized, coating operations, results published in the proceedings of the Fifty-first (51st) Purdue University Industrial Waste Conference showed a thirty-three percent (33%) decrease in VOC emissions as a result of operator training, which decreased cost to the source by a conservative ten percent (10%) in material usage.

The average improvement in transfer efficiency among the thirty (30) study participants was twenty-five percent (25%). The average decrease in VOC emissions from the coating application process was thirty-one percent (31%). Training a total of three hundred eight (308) individuals has resulted in an average improvement in transfer efficiency of twenty-three percent (23%) and a twenty-two percent (22%) decrease in material usage.

These studies were performed in a “laboratory setting” and not in a production setting. Actual reductions achieved will vary with the type of material sprayed, the type of application equipment, and the geometry of the substrate.

(2) The addition of operator training and work practice standards is similar to requirements in other state rules. The requirement for operator training and work practice standards was required as part of the Wood Furniture Manufacturing Operations NESHAP (40 CFR 63, Subpart JJ). Conservative estimates include a statewide reduction of two hundred fifty (250) tons of VOCs and more than seventy-five (75) tons of volatile hazardous air pollutants annually. This also resulted in saving at least seven hundred thousand dollars (\$700,000) for Indiana wood manufacturers.

(3) Comments and data were provided by Indiana Clean Manufacturers Technology and Safe Material Institute (CMTI). Documents are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

Potential Fiscal Impact

The costs associated with operator training can vary greatly depending on the length of the training session, and if the training

is performed by company personnel or an outside contractor. Some in-depth training programs range from two (2) to four (4) days. Other training programs are as simple as showing a fifteen (15) minute video that reviews proper spray techniques.

Training by an outside contractor generally ranges from seven hundred fifty dollars (\$750) to one thousand five hundred dollars (\$1,500) per day; however, there are recent electronic innovations that permit interactive training and distance learning that could reduce the cost.

Public Participation and Workgroup Information

No workgroup is planned for the rulemaking. If you feel that a workgroup or other informal discussion on the rule is appropriate, please contact Gayl Killough, Rules Section, Office of Air Quality at (317) 233-8628 or (800) 451-6021 (in Indiana).

SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST COMMENT PERIOD

IDEM requested public comment from July 1, 2004, through August 2, 2004, on alternative ways to achieve the purpose of the rule and suggestions for the development of draft rule language. IDEM received comments from Indiana Clean Manufacturers Technology and Safe Material Institute (CMTI).

Following is a summary of the comments received and IDEM's responses thereto:

Comment: We support requiring operator training and work standard practice standards in the state emission standards for the national emission standards for hazardous air pollutants (NESHAPs) for metal and plastic surface coating operations.

Results from a training program resulted in VOC reductions of up to thirty-three percent (33%), improvement in transfer efficiency of up to twenty-five percent (25%), and a decrease of material usage of twenty-two percent (22%). Conservative estimate for actual reductions reduction in actual material usage is ten percent (10%).

The wood furniture NESHAP required operator training and work standard practices. Hazardous chemicals in the wood industry decreased by fifty-three percent (53%) according to Indiana's Toxic Release Inventory from 1996 to 1998, much of which can be directly attributed to the NESHAP and its operator training.

Response: The department concurs with the benefits of operator training for spray coating operators. Operator training language that is similar to requirements for operator training similar to the styrene rule (326 IAC 20-25-8) and the wood furniture rule has been added to both NESHAPs in this rulemaking. General work standard practices included in the NESHAPs are incorporated by reference in this rulemaking.

REQUEST FOR PUBLIC COMMENTS

This notice requests the submission of comments on the draft rule language, including suggestions for specific revisions to language to be contained in the draft rule. Mailed comments should be addressed to:

#04-181(APCB) Group 6 NESHAPs
Gayl Killough
c/o Administrative Assistant
Rules Development Section
Air Programs Branch
Office of Air Quality
Indiana Department of Environmental Management
P.O. Box 6015
Indianapolis, Indiana 46206-6015.

Hand delivered comments will be accepted by the receptionist on duty at the tenth floor reception desk, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana.

Comments may be submitted by facsimile at the IDEM fax number: (317) 233-2342, Monday through Friday, between 8:15 a.m. and 4:45 p.m. Please confirm the timely receipt of faxed comments by calling the Rules Development Section at (317) 233-0426.

COMMENT PERIOD DEADLINE

Comments must be postmarked, faxed, or hand delivered by November 1, 2004.

Additional information regarding this action may be obtained from Gayl Killough, Rules Development Section, Office of Air Quality, (317) 233-8628 or (800) 451-6027 (in Indiana).

DRAFT RULE

SECTION 1. 326 IAC 20-80 IS ADDED TO READ AS FOLLOWS:

Rule 80. Surface Coating of Miscellaneous Metal Parts and Products

326 IAC 20-80-1 Applicability; incorporation by reference of federal standards

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 1. (a) This rule applies to sources as provided in 40 CFR 63.3881* (69 FR 158, January 2, 2004).

(b) The air pollution control board incorporates by reference 40 CFR 63, Subpart M* (69 FR 158, January 2, 2004, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products).

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Board; 326 IAC 20-80-1*)

326 IAC 20-80-2 Operator training for spray coating

Authority: IC 13-14-8; IC 13-15-2-1; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-17-3

Sec. 2. (a) Each owner or operator shall train all new and existing personnel, including contract personnel, who are involved in spray coating and spray-like applications that could result in excess emissions if performed improperly according to the following schedule:

(1) All personnel hired after the compliance date of this rule shall be trained within thirty (30) days of hiring.

(2) All personnel hired before the compliance date of this rule shall be trained or evaluated by a supervisor within six (6) months of the compliance date of this rule.

(3) To ensure the training goals listed in subsection (b) are maintained, all personnel shall be given refresher training annually.

(4) Personnel who have been trained by another owner or operator subject to this rule are exempt from subdivision (1) if written documentation that the employee's training is current is provided to the new employer.

(b) The lesson plans for the initial and refresher training shall cover, at a minimum, all of the following topics:

(1) Appropriate application techniques.

(2) Appropriate equipment cleaning procedures.

(3) Appropriate equipment setup and adjustment to minimize material usage and overspray.

(c) The owner or operator shall maintain the following training records on site and available for inspection and review by the department:

(1) A copy of the current training program.

(2) A list of the following:

(A) All current personnel, by name, that are required to be trained.

(B) The date the person was trained or date of most recent refresher training, whichever is later.

(d) Records of prior training programs and former personnel are not required to be maintained. (*Air Pollution Control Board; 326 IAC 20-80-2*)

SECTION 2. 326 IAC 20-81 IS ADDED TO READ AS FOLLOWS:

Rule 81. Surface Coating of Plastic Parts and Products

326 IAC 20-81-1 Applicability; incorporation by reference of federal standards

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 1. (a) This rule applies to sources as provided in 40 CFR 63.4481* (69 FR 20991, April 19, 2004).

(b) The air pollution control board incorporates by reference 40 CFR 63, Subpart P* (69 FR 20990, April 19, 2004, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products).

**This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (Air Pollution Control Board; 326 IAC 20-81-1)*

326 IAC 20-81-2 Operator training for spray coating

Authority: IC 13-14-8; IC 13-15-2-1; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-17-3

Sec. 2. (a) Each owner or operator shall train all new and existing personnel, including contract personnel, who are involved in spray coating and spray-like applications that could result in excess emissions if performed improperly according to the following schedule:

- (1) All personnel hired after the compliance date of this rule shall be trained within thirty (30) days of hiring.**
- (2) All personnel hired before the compliance date of this rule shall be trained or evaluated by a supervisor within six (6) months of the compliance date of this rule.**
- (3) To ensure the training goals listed in subsection (b) are maintained, all personnel shall be given refresher training annually.**
- (4) Personnel who have been trained by another owner or operator subject to this rule are exempt from subdivision (1) if written documentation that the employee's training is current is provided to the new employer.**

(b) The lesson plans for the initial and refresher training shall cover, at a minimum, all of the following topics:

- (1) Appropriate application techniques.**
- (2) Appropriate equipment cleaning procedures.**
- (3) Appropriate equipment setup and adjustment to minimize material usage and overspray.**

(c) The owner or operator shall maintain the following training records on site and available for inspection and review by the department:

- (1) A copy of the current training program.**
- (2) A list of the following:**
 - (A) All current personnel, by name, that are required to be trained.**
 - (B) The date the person was trained or date of most recent refresher training, whichever is later.**

(d) Records of prior training programs and former personnel are not required to be maintained. (Air Pollution Control Board; 326 IAC 20-81-2)

Notice of First Meeting/Hearing

Under IC 4-22-2-24, IC 13-14-8-6, and IC 13-14-9, notice is hereby given that on February 2, 2005 at 1:00 p.m., at the Indiana Government Center-South, 402 West Washington Street, Conference Center Room A, Indianapolis, Indiana, the Air Pollution Control Board will hold a public hearing on new rules 326 IAC 20-80 and 326 IAC 20-81.

The purpose of this hearing is to receive comments from the public prior to preliminary adoption of these rules by the board. All interested persons are invited and will be given reasonable opportunity to express their views concerning the proposed new rule. Oral statements will be heard, but, for the accuracy of the record, all comments should be submitted in writing.

Additional information regarding this action may be obtained from Gayl Killough, Rules Section, Office of Air Quality, (317) 233-8628 or (800) 451-6027 (in Indiana).

Individuals requiring reasonable accommodations for participation in this event should contact the Indiana Department of Environmental Management, Americans with Disabilities Act coordinator at:

Attn: ADA Coordinator

Indiana Department of Environmental Management

100 North Senate Avenue

P.O. Box 6015

Indianapolis, Indiana 46206-6015

or call (317) 233-0855, TDD: (317) 232-6565. Speech and hearing impaired callers may contact IDEM via the Indiana Relay Service at 1-800-743-3333. Please provide a minimum of 72 hours' notification.

Copies of these rules are now on file at the Office of Air Quality, Indiana Department of Environmental Management, Indiana Government Center-North, 100 North Senate Avenue, Tenth Floor, Indianapolis, Indiana and are open for public inspection.