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TITLE 326 AIR POLLUTION CONTROL BOARD

FIRST 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 hazardous air pollutant 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.

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 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 has been demonstrated to irritate the lung, skin, and mucous membranes and effect the central nervous system, liver, and heart. Emissions will be reduced 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%) sources are located in eight (8) hour ozone nonattainment counties. Sources

must comply 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 subcategories: assembled on-road vehicle; general use; thermoplastic olefin; and automotive lamp. Emission limits would be set for all plastic parts and products surface coating operations that use more than 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 has been demonstrated to irritate the lung, skin, and mucous membranes and effect the central nervous system, liver, and heart. Emissions will be reduced by 80 percent from estimated 1997 baseline levels. There are at least seventy (70) potential Indiana sources. Nearly half of the sources are located in non-attainment counties for eight (8) hour ozone standard. Sources must comply by April 19, 2007.

Alternatives To Be Considered Within the Rulemaking

Alternative 1. Straight Incorporation by Reference of Federal Standards.

- Is this alternative an incorporation of federal standards, either by reference or full text incorporation? Yes.
- Is this alternative imposed by federal law or is there a comparable federal law? Yes.
- If it is a federal requirement, is it different from federal law? No.
- If it is different, describe the differences. Not applicable.

Alternative 2. Alternative 1 Plus Addition of Operator Training and Work Practice Standards.

- Is this alternative an incorporation of federal standards, either by reference or full text incorporation? This alternative incorporates federal requirements, but also would include operator training and work practice standards that would result in even further emission reductions.
- Is this alternative imposed by federal law or is there a comparable federal law? The operator training and work practice standards are not imposed by federal law. (There are similar requirements in the Wood Furniture Manufacturing Operations NESHAP (40 CFR Part 63, Subpart JJ).)
- If it is a federal requirement, is it different from federal law? Not applicable.
- If it is different, describe the differences. Not applicable.

Applicable Federal Law

IDEM must incorporate the federal requirements into state rules or establish state requirements that are no less stringent than the federal requirements.

Potential Fiscal Impact

Potential Fiscal Impact of Alternative 1

These NESHAPs are federal requirements and the state rulemaking will not result in additional costs to the regulated entities beyond costs resulting from complying with the existing federal requirements.

Potential Fiscal Impact of Alternative 2

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 minute video which 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.

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 51st Purdue University Industrial Waste Conference, showed a thirty-three (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 and 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.

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 worked successfully for Indiana when it was required as part of the Wood Furniture Manufacturing Operations NESHAP (40 CFR 63, Subpart JJ). Conservative estimates include a state-wide reduction of 250 tons of VOCs and more than 75 tons of volatile hazardous air pollutants annually. This also resulted in a saving of at least \$700,000 for Indiana wood manufacturers.

Public Participation and Workgroup Information

IDEM will notify potential affected sources in Indiana. At this time, 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 Development Section, Office of Air Quality at (317) 233-8628 or (800) 451-6027 (in Indiana).

STATUTORY AND REGULATORY REQUIREMENTS

IC 13-14-8-4 requires the board to consider the following factors in promulgating rules:

- (1) All existing physical conditions and the character of the area affected.
- (2) Past, present, and probable future uses of the area, including the character of the uses of surrounding areas.
- (3) Zoning classifications.
- (4) The nature of the existing air quality or existing water quality, as the case may be.
- (5) Technical feasibility, including the quality conditions that could reasonably be achieved through coordinated control of all factors affecting the quality.
- (6) Economic reasonableness of measuring or reducing any particular type of pollution.
- (7) The right of all persons to an environment sufficiently uncontaminated as not to be injurious to human, plant, animal, or aquatic life or to the reasonable enjoyment of life and property.

REQUEST FOR PUBLIC COMMENTS

At this time, IDEM solicits the following:

- (1) The submission of alternative ways to achieve the purpose of the rule.
- (2) The submission of suggestions for the development of draft rule language.

Mailed comments should be addressed to:

#04-181(APCB) Group 6 NESHAPs
Gayl Killough
Rules Section
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 IDEM receptionist on duty at the 10th floor reception desk, Office of Air Quality, Indiana Government Center-North, 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 Air Programs Branch at (317) 232-8415.

COMMENT PERIOD DEADLINE

Comments must be postmarked, faxed, or hand delivered by August 2, 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).

Janet McCabe
Assistant Commissioner
Office of Air Quality