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TITLE 326 AIR POLLUTION CONTROL BOARD

SECOND NOTICE OF COMMENT PERIOD

LSA Document #05-197(APCB)

DEVELOPMENT OF NEW RULES CONCERNING CERTAIN SOURCE CATEGORIES EMITTING VOLATILE ORGANIC COMPOUNDS

PURPOSE OF NOTICE

The Indiana Department of Environmental Management (IDEM) has developed draft rule language for new rules concerning volatile organic compound (VOC) emissions from three (3) specific source categories that are currently subject to 326 IAC 8-1-6 New facilities; general reduction requirements. The new rules for these specific source categories will be contained in 326 IAC 8. By this notice, IDEM is soliciting public comment on the draft rule language. IDEM seeks comment on the affected citations listed and any other provisions of Title 326 that may be affected by this rulemaking.

HISTORY

First Notice of Comment Period: August 1, 2005, Indiana Register (28 IR 3355).

CITATIONS AFFECTED: 326 IAC 8-1-6; 326 IAC 8-5-1; 326 IAC 8-5-6; 326 IAC 8-5-7; 326 IAC 8-5-8.

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 purpose of this rulemaking is to increase the clarity, predictability, and timeliness of air permits for certain new sources of VOC emissions. Currently, new facilities not regulated by a provision in 326 IAC 8 that have potential emissions of twenty-five (25) tons or more per year of VOC are required to reduce VOC emissions using best available control technology (BACT). "Facility" is defined at 326 IAC 1-2-27 to mean individual pieces of equipment, a structure, or installation. Establishing BACT is a case-by-case determination based on the maximum reduction in emissions that is technically feasible, while taking into account energy, environmental, and economic impact. Such analyses are time intensive, cause delays in permit issuance, and do not always provide predictability to the permit applicant. Establishing industry specific BACT standards in place of case-by-case BACT analyses improves the clarity, predictability, and timeliness of permit decisions involving sources that are currently subject to 326 IAC 8-1-6.

This rulemaking will establish specific control options for three (3) specified source categories with potential emissions of twenty-five (25) tons or more per year of VOC in lieu of a case-by-case specific BACT analysis and determination under 326 IAC 8-1-6.

The specific control options for the three (3) source specific categories are based on current control requirements that IDEM has established for 326 IAC 8-1-6 BACT determinations for the following VOC emitting activities: foundry core operations, fuel grade ethanol production, and heatset web offset lithographic printing presses. For each source specific category, the rule provides the applicability, definitions, emission limitations, general compliance, recordkeeping, and reporting requirements that apply to that particular rule. For foundry core making operations using amine gas, an amine gas scrubber system would be established as BACT for addressing VOC emissions. BACT for fuel grade ethanol production operations with the potential to emit twenty-five (25) tons or more of VOC per year would be any of the following control technologies that can achieve an overall VOC control efficiency of ninety-eight percent (98%) or greater: Regenerative or recuperative thermal oxidizer, a wet scrubber, or an enclosed flare. For heatset web offset lithographic printing presses, the specified BACT would be one (1) of three (3) types of thermal oxidizers that achieves a VOC reduction efficiency of ninety-eight percent (98%) or greater.

IC 13-14-9-4 Identification of Restrictions and Requirements Not Imposed Under Federal Law

No element of the draft rule imposes either a restriction or a requirement on persons to whom the draft rule applies that is not imposed under federal law.

Potential Fiscal Impact

There is no fiscal impact on existing sources since they are already subject to BACT. For new sources, the rule should not impose costs beyond what is currently required, since new sources could already be subject to BACT on a case by case basis. The rule should

reduce costs for new sources because a BACT analysis would not be required as part of a permit application.

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 Sean Gorman, Rules Section, Office of Air Quality at (317) 234-3533 or (800) 451-6021 (in Indiana).

SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST COMMENT PERIOD

IDEM requested public comment from August 1, 2005, through August 31, 2005, on alternative ways to achieve the purpose of the rule and suggestions for the development of draft rule language. IDEM received comments from the following parties by the comment period deadline:

Dalton Corporation (DC)
International Truck and Engine Corporation (ITEC)
Indiana Cast Metals Association (INCMA)
Indiana Steel Environmental Group (ISEG)
National Oilseed Processors Association (NOP)
Eli Lilly and Company (ELC)
Printing Industry of Illinois/Indiana Association (PIIIA)

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

Comment: The BACT rule should be revised to identify specific control options for the specific source categories identified in the notice to increase certainty of regulatory obligations for those and to speed up the permitting process for those sources. (ISEG)

Comment: Revising the BACT rule to identify specific control options for specific source categories in lieu of the case-by-case BACT determination process will eliminate uncertainty of regulatory obligations for sources in those source categories and will speed up permit reviews. (ELC)

Response: IDEM has proposed BACT for foundry core operations, fuel grade ethanol production, and heatset web offset lithographic printing presses in the draft rule language. IDEM plans to propose BACT for soybean oil extraction operations and other source specific source categories in future rulemakings.

Comment: Allowing a presumption that an acid scrubber constitutes BACT for foundry core making installations, in lieu of case-by-case BACT analysis and determination, should reduce cost and shorten time involved in obtaining permits. (DC, INCMA, ITEC)

Response: IDEM has proposed that an acid scrubber constitutes BACT for foundry core making installations utilizing amine gas to catalyze the adhesive binder in the draft rule language.

Comment: For foundry core operations, this rulemaking should not specify total enclosure of the core machines to improve capture efficiency. (ITEC)

Response: IDEM has proposed that foundry core making processes meet a capture efficiency of one hundred percent (100%). IDEM has proposed that the amine gas scrubber system must have an amine gas destruction of ninety-nine percent (99%) or better, and that total non-amine VOC emissions for the installation shall not exceed five-hundredths (0.05) pound of VOC per pound of resin. Achieving these requirements will essentially require total enclosure, but this was not specified in the draft rule.

Comment: For foundry core operations, this rulemaking should not specify thermal oxidizers as BACT for foundry core operations. (ITEC)

Response: IDEM has not proposed that thermal oxidizers constitute BACT for foundry core making installations using amine gas to catalyze the adhesive binder in the draft rule language.

Comment: For foundry core making operations, compliance and recordkeeping requirements should be placed in 326 IAC 8-1-12, however, the section titles and language in the section refer to "coating facilities". This language might need to be changed to a more general description such as "VOC-emitting facility". (INCMA)

Response: Compliance certification and reporting and recordkeeping requirements for the source specific operations were outlined for each specific source category in its respective rule section.

Comment: New specified source categories should be placed in 326 IAC 8-5-5, but the title of that section should be changed from "Miscellaneous Operations" to "Specific Operations". (DC, INCMA)

Response: IDEM proposes to add a new section for each source specific BACT in 326 IAC 8-5: Miscellaneous Operations. IDEM is not proposing to change the name of that rule from "Miscellaneous Operations" to "Specific Operations" as part of this rulemaking.

Comment: The four (4) control options being considered by IDEM as BACT for soybean oil extraction, catalytic oxidizer, wet scrubber, flare, and regenerative thermal oxidizer, have never been used at soybean oil extraction plants and have never been established as BACT in previous soybean oil extraction BACT determinations. (NOPA)

Comment: The control option most appropriate to designate as BACT for soybean oil extraction options is a solvent collection and recovery system, inclusive of condensing followed by add-on emission control consisting of a mineral oil scrubber system. Use of this system is consistent with U.S. EPA's NESHAP for solvent extraction for vegetable oil production. The gallon per ton format, a two-tenth (.2) gallon of total solvent lost per ton of soybeans crushed limit, and monitoring and recordkeeping/reporting

requirements should also be incorporated as BACT. (NOPA)

Comment: The NESHAP rule language for solvent extraction for vegetable oil production should be incorporated by reference and amended as necessary to reconcile the incorporated text with BACT regulations. (NOPA)

Response: IDEM has decided not to specify BACT for soybean oil extraction operations in the draft rule language at this time. Those operations, where applicable, will continue to be subject to the requirements of 326 IAC 8-1-6 New facilities: general reduction requirements. IDEM will conduct further research into appropriate BACT options and will propose BACT for soybean oil extraction operations in a future rulemaking.

Comment: Emissions from a heatset web offset lithographic printing press can be controlled by catalytic and recuperative thermal oxidizer systems, in addition to regenerative thermal oxidizers. All three (3) technologies should be identified as BACT, and the choice of the control system should be left to the source. (PIIIA)

Response: IDEM has specified that regenerative thermal oxidizers, recuperative thermal oxidizers, and catalytic oxidizers all constitute BACT for heatset web offset lithographic printing press operations in the draft rule language. The operation may choose any of the three (3) control options as long as it achieves an overall control efficiency of ninety-eight percent (98%) or greater for VOCs.

Comment: Any amendment to the applicability of the BACT rule in ozone nonattainment areas needs to carefully and clearly articulate the boundaries of the rule. There should be some minimum threshold for the amount of potential VOC emissions from new equipment that trigger the BACT evaluation. The applicability threshold should be at a high enough level so that most projects that trigger a BACT evaluation actually require controls. (ELC)

Comment: The applicability of the BACT rule should not be extended in ozone nonattainment areas. Unless the boundaries of the BACT rule applicability are carefully and clearly articulated in the rule, then it would result in increased administrative review, cause more permitting delays, and could impose BACT controls where expense is not warranted. (ISEG)

Comment: The BACT rule should apply only to new equipment additions and not modifications to existing emission sources. The cost of retrofitting existing sources for BACT controls make it more likely that the BACT evaluation may not result in additional or improved controls. (ELC)

Comment: The BACT provision's applicability should be revised to apply only to nonattainment areas, rather than to all facilities with the potential to emit more than twenty-five (25) tons per year in both attainment and nonattainment areas. (PIIIA)

Response: IDEM has determined that it is not necessary for state implementation plan purposes to revise the applicability of 326 IAC 8-1-6 in ozone nonattainment areas.

Comment: The BACT rule should exempt VOC sources that are subject to MACT rules, but are otherwise subject to state BACT requirements because there is no Article 8 RACT rule that applies to that source type. BACT will likely be the same as MACT in that situation, and so a BACT determination would be wasted effort. (ELC)

Response: IDEM will examine the source categories individually to determine whether the MACT standard can serve as BACT or not, rather than propose to exempt all such categories as a group.

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:

#05-197(APCB) 8-1-6 Source Specific BACT

Sean Gorman Mail Code 61-50

c/o Administrative Assistant

Rules Development Section

Office of Air Quality

Indiana Department of Environmental Management

100 North Senate Avenue

Indianapolis, Indiana 46204.

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 May 31, 2006.

Additional information regarding this action may be obtained from Sean Gorman, Rules Development Section, Office of Air Quality, (317) 234-3533 or (800) 451-6027 (in Indiana).

DRAFT RULE

SECTION 1. 326 IAC 8-5-1 IS AMENDED TO READ AS FOLLOWS:

326 IAC 8-5-1 Applicability of rule

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

Affected: IC 13-17-1; IC 13-17-3; IC 13-14-8-7

Sec. 1. ~~326 IAC 8-5~~ **This rule** pertaining to miscellaneous operations shall apply to **the following:**

(1) Facilities or sources existing as of January 1, 1980, of the types described in ~~326 IAC 8-5-2~~ **section 2 of this rule** and facilities or sources existing as of November 1, 1980, of the types described in ~~326 IAC 8-5-3, 326 IAC 8-5-4, and 326 IAC 8-5-5~~, **sections 3 through 5 of this rule** located in **the following counties:**

(A) Clark.

(B) Elkhart.

(C) Floyd.

(D) Lake.

(E) Marion.

(F) Porter. ~~and~~

(G) St. Joseph. ~~Counties; and~~

(2) Sources or facilities, construction of which commences after January 1, 1980, of the types described in ~~326 IAC 8-5-2~~ **section 2 of this rule** and sources or facilities, construction of which commences after November 1, 1980, of the types described in ~~326 IAC 8-5-3, 326 IAC 8-5-4, and 326 IAC 8-5-5~~, **sections 3, 4, and 5 of this rule** located anywhere in the state.

(3) Any asphalt paving application made after January 1, 1980. ~~shall be regulated by this rule (326 IAC 8-5).~~

(4) **Facilities or sources, construction of which commences after January 1, 2007, of the types described in sections 6 through 8 of this rule located anywhere in the state.**

(Air Pollution Control Board; 326 IAC 8-5-1; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2543; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 2. 326 IAC 8-5-6 IS ADDED TO READ AS FOLLOWS:

326 IAC 8-5-6 Foundry core making operations

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

Affected: IC 13-17-1; IC 13-17-3; IC 13-14-8-7

Sec. 6. (a) This section applies to phenolic-urethane cold-box core making processes:

(1) constructed or modified after January 1, 2007;

(2) that use amine gas to catalyze the adhesive binder; and

(3) that have potential VOC emissions of twenty-two and seven-tenths (22.7) megagrams (twenty-five (25) tons) or more per year.

(b) The following definitions apply throughout this section:

(1) "Amine gas" means a gas used to catalyze the phenolic-urethane resin binder.

(2) "Phenolic-urethane cold-box core making process" means a core production line that:

(A) includes one (1) or more core machines and the mixer; and

(B) produces cores through the binding of sand and other inorganic particles through the use of binding adhesives containing solvents.

(c) The owner or operator of a core making process shall install, and operate at all times the core machine is in operation, an amine gas scrubber system, with a capture efficiency of one hundred percent (100%) and an amine gas destruction efficiency of ninety-nine percent (99%) or resulting in an outlet amine gas concentration less than one (1) part per million by volume. Total nonamine volatile organic compound emissions shall not exceed five-hundredths (0.05) pound per pound of resin.

(d) To ensure and verify compliance with the control efficiency requirement, the source shall monitor and maintain records of the following:

(1) The flow rate of the amine gas scrubber to ensure that the three (3) hour average flow rate, as measured by a continuous parameter monitoring system, does not fall below the minimum level established during the most recent compliance demonstration.

(2) The pH of the scrubber solution to ensure the three (3) hour average pH of the scrubber solution, as measured by a continuous parameter monitoring system, does not exceed 4.5 or the pH of the scrubber solution, as measured once every eight (8) hours during process operation, does not exceed 4.5.

(Air Pollution Control Board; 326 IAC 8-5-6)

SECTION 3. 326 IAC 8-5-7 IS ADDED TO READ AS FOLLOWS:

326 IAC 8-5-7 Fuel grade ethanol production operations

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

Affected: IC 13-17-1; IC 13-17-3; IC 13-14-8-7

Sec. 7. (a) This section applies to fuel grade ethanol production sources:

(1) constructed or modified after January 1, 2007;

(2) that use fermentation, distillation, and dehydration to produce ethanol and dried distillers grain and solubles (DDGS); and

(3) that have potential VOC emissions of twenty-two and seven-tenths (22.7) megagrams (25 tons) or more per year.

This rule will apply only to sources that are classified as dry-mills and have no wet milling operations.

(b) The following definitions apply throughout this section:

(1) “Dry mill” means an ethanol production source that uses the whole corn kernel to produce a meal that is then used to produce alcohol. The byproduct of a dry mill is the DDGS.

(2) “Fuel grade ethanol production source” means a source that produces ethanol that is then denatured with a denaturant to make it unfit for human consumption.

(3) “Wet milling” means a process by which corn is soaked or steeped to soften the corn kernel so that it can be separated into its various components, such as the following:

(A) Gluten.

(B) Germ.

(C) Protein.

(D) Fiber.

(E) Starch.

(c) The owner or operator of a fuel grade ethanol production source shall install and operate VOC emission controls for each fermentation, distillation and dehydration, DDGS dryer or dryers, and ethanol load-out operation with the potential to emit VOC uncontrolled of twenty-two and seven-tenths (22.7) megagrams (twenty-five (25) tons) or more per year. The source shall use at least one (1) of the following control devices at the level specified in this section to satisfy this requirement:

(1) A regenerative or recuperative thermal oxidizer with a capture efficiency of one hundred percent (100%) and an overall control efficiency of not less than ninety-eight percent (98%) or a volatile organic compound concentration of not more than ten (10) parts per million. To ensure compliance with the control efficiency requirement, the owner or operator shall do all of the following:

(A) Continuously monitor the operating temperature of the oxidizer to ensure that the three (3) hour average temperature, as measured by a continuous temperature monitor, is greater than or equal to the minimum temperature established during the most recent compliance demonstration.

(B) Maintain continuous temperature records for the thermal oxidizer and the three (3) hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(C) Monitor the duct pressure or fan amperage once per day to ensure that the three (3) hour average duct pressure or fan amperage, as measured by a continuous parameter monitoring system, is within the normal range established during the most recent compliance demonstration.

(D) Maintain daily records of the duct pressure or fan amperage for the thermal oxidizer.

(2) A wet scrubber with a capture efficiency of one hundred percent (100%) and an overall control efficiency of not less than ninety-eight percent (98%) or a volatile organic compound concentration of not more than twenty (20) ppm. To ensure compliance with the control efficiency requirement, the owner or operator shall do all of the following:

(A) Monitor the pressure drop of the scrubber at least once per day when the associated emission unit is in operation to

ensure that the pressure drop across the scrubber is within the normal range established during the latest stack test.

(B) Monitor the scrubber flow rate at least once per day when the associated emission unit is in operation to ensure that the flow rate of the scrubber is greater than the minimum flow rate established during the latest stack test.

(C) Maintain daily records of pressure drop and flow rate for the scrubber during normal operation.

(3) An enclosed flare with a capture efficiency of one hundred percent (100%) and an overall control efficiency of not less than ninety-eight percent (98%). To ensure compliance with the control efficiency requirement, the owner or operator shall do all of the following:

(A) Continuously monitor the presence of a flare pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame when the associated emission unit is in operation.

(B) Maintain records of temperature or other parameters sufficient to demonstrate the presence of a pilot flame when the loading rack is in operation.

(Air Pollution Control Board; 326 IAC 8-5-7)

SECTION 4. 326 IAC 8-5-8 IS ADDED TO READ AS FOLLOWS:

326 IAC 8-5-8 Heatset web offset lithographic printing press operations

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

Affected: IC 13-17-1; IC 13-17-3; IC 13-14-8-7

Sec. 8. (a) This section applies to heatset web offset lithographic printing press facilities:

(1) constructed or modified after January 1, 2007; and

(2) that have potential VOC emissions of twenty-two and seven-tenths (22.7) megagrams (twenty-five (25) tons) or more per year.

(b) The following definitions apply throughout this section:

(1) "Heatset" means a class of web offset lithography that requires a heated dryer to evaporate the ink oils and solvents from the printing inks.

(2) "Lithographic printing" means a printing process where a planographic plate is used and the image area is commonly defined by oleophilic and hydrophilic printing areas. This process differs from other printing methods where the image is a raised or recessed surface.

(3) "Offset" describes the process where an image is transferred from a plate to an intermediary surface, such as a rubber cylinder, before being transferred to the substrate.

(4) "Permanent total enclosure" means a capture system as defined in 40 CFR part 51, Appendix M*.

(5) "Web" means the substrate that is printed in a continuous roll fed process.

(c) The owner or operator of a heatset web offset lithographic printing press shall install, and operate at all times the facility is operating, a control device of one (1) of the following types with an overall control efficiency of ninety-eight percent (98%) or greater:

(1) Regenerative thermal oxidizer.

(2) Recuperative thermal oxidizer.

(3) Catalytic oxidizer.

(d) To ensure compliance with the control efficiency requirement, the owner or operator of the facility shall monitor and record the following:

(1) The operating temperature of the oxidizer to ensure that the three (3) hour average temperature, as measured by a continuous temperature monitor, is greater than or equal to the minimum temperature established during the most recent compliance demonstration.

(2) The duct pressure or fan amperage to ensure that the three (3) hour average duct pressure or fan amperage, as measured by a continuous parameter monitoring system, is within the normal range established during the most recent compliance demonstration.

(3) As an alternative to subdivision (2) for any capture system that is a permanent total enclosure or for any facility using only oil-based paste inks and varnishes, the pressure differential across the enclosure wall and the surrounding atmosphere to ensure that the three (3) hour average pressure differential across the enclosure wall and the surrounding atmosphere, as measured by a continuous parameter monitoring system, is less than negative seven-thousandths (-0.007) inches of water column (in. w.c.) or a value established during the most recent compliance demonstration.

***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 is 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 8-5-8)**

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 August 2, 2006, 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 8-5-6, 326 IAC 8-5-7, and 326 IAC 8-5-8, and amendments to 326 IAC 8-5-1.

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 rules and amendments to existing rules. 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 Sean Gorman, Rules Development Section, Office of Air Quality, (317) 234-3533 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

Indianapolis, Indiana 46204

or call (317) 233-0855 or (317) 232-6565 (TDD). 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 East and Legislative Services Agency, One North Capitol, Suite 325, Indianapolis, Indiana and are open for public inspection.