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TITLE 326 AIR POLLUTION CONTROL BOARD

Proposed Rule LSA Document #03-228

DIGEST

Adds 326 IAC 1-2-52.2, 326 IAC 1-2-52.4, and 326 IAC 1-2-82.5 and amends 326 IAC 1-2-52 and 326 IAC 1-3-4 concerning particulate matter definitions and standards. Effective 30 days after filing with the secretary of state.

HISTORY

First Notice of Comment Period: September 1, 2003, Indiana Register (26 IR 3961).

Second Notice of Comment Period: January 1, 2004, Indiana Register (27 IR 1301).

Change of Notice of First Hearing: February 1, 2004, Indiana Register (27 IR 1613).

Change of Notice of First Hearing: March 1, 2004, Indiana Register (27 IR 1936).

Date of First Hearing: May 5, 2004.

Change of Notice of First Hearing: June 1, 2004, Indiana Register (27 IR 1301).

Opened and Continuation of First Hearing: June 2, 2004.

PUBLIC COMMENTS UNDER IC 13-14-9-4.5

IC 13-14-9-4.5 states that a board may not adopt a rule under IC 13-14-9 that is substantively different from the draft rule published under IC 13-14-9-4, until the board has conducted a third comment period that is at least twenty-one (21) days long.

REQUEST FOR PUBLIC COMMENTS

This proposed (preliminarily adopted) rule is substantively different from the draft rule published on January 1, 2004, at 27 IR 1301. The Indiana Department of Environmental Management (IDEM) is requesting comment on the entire proposed (preliminarily adopted) rule.

The proposed rule contains numerous changes from the draft rule that make the proposed rule so substantively different from the draft rule that public comment on the entire proposed rule is advisable. This notice requests the submission of comments on the entire proposed rule, including suggestions for specific amendments. These comments and the department's responses thereto will be presented to the board for its consideration at final adoption under IC 13-14-9-6. Mailed comments should be addressed to:

#03-228 Particulate Matter

Gayl Killough

c/o Administrative Assistant

Rule Development 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 receptionist on duty at the Office of Air Quality, Tenth Floor East, 100 North Senate Avenue, Indianapolis, Indiana. Comments may also be submitted by facsimile to (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 Rule Development Section at (317) 233-0426.

COMMENT PERIOD DEADLINE

Comments must be postmarked, hand delivered, or faxed by July 21, 2004.

SUMMARY/RESPONSE TO COMMENTS FROM THE SECOND COMMENT PERIOD

The Indiana Department of Environmental Management (IDEM) requested public comment from January 1, 2004, through February 2, 2004, on IDEM's draft rule language. IDEM received comments from the following parties:

David R. Webb Company, Inc. (DW)

Hoosier Energy (HE)

NIPSCO (NP)

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

General

Comment: The draft rule language for the PM_{2.5} standard should be corrected where it refers to a 24-hour standard of fifteen (15) micrograms per cubic meter, rather than sixty-five (65). (HE) (NP)

Comment: For the SO₂ national ambient air quality standards, we recommend that IDEM language to incorporate the term "calendar year" related to the annual arithmetic mean, clarify the 24-hour standard, and the 3-hour standard.

Comment: For nitrogen dioxide ambient air quality standards, the concentration should be changed from 0.05 to 0.053. This will prevent a discrepancy between the 100 ug/m³ value as listed as the standard and the 94 ug/m³ value that will be calculated if converting from 0.05 ppm using the 1,880 ug/m³ = one (1) ppm conversion factor listed in 326 IAC 1-3-4(b)(5)(B). (NP)

Response: IDEM has clarified the existing rule language.

Comment: For the ambient air quality standards in 326 IAC 1-3-4, we recommend consistency in formatting. (NP)

Response: IDEM has updated rule language to be consistent in formatting as recommended while still consistent with Legislative Service Agency style.

Subject of a Future Rulemaking

Comment: IDEM should not change the definition of particulate matter that eliminates the "aerodynamic diameter smaller than one hundred (100) micrometers". (DW)(HE)

Comment: We question the need to include emission definitions in state rules. The emission definitions should not be added without careful analysis of its impact to other state rules. (NP)

Comment: The emission definitions should be modified to indicate that each emission definition relates directly to the corresponding particulate matter and redundant language should be removed. (HE) (NP)

Comment: The emission definitions would include all that is in the ambient air, regardless of source, that is measured by ambient air monitoring equipment. Therefore, we recommend there be some clarification included in the emission definitions that the discharge is to ambient air. (NP)

Comment: We recommend the measurement methods be listed outside the emission definitions in a separate section of 326 IAC. (NP)

Comment: We recommend that the definition of TSP be deleted because there is no national ambient air quality standard for TSP. (NP)

Comment: We request that IDEM include in its rulemaking notices citations for federal regulatory language proposed for inclusion in state rules. (NP)

Response: The department has revised the draft rule to limit the amendments to incorporating the new federal standards for PM_{2.5}, adding the federal definition of PM_{2.5}, and clarifying the SO₂ and the NO₂ standards. Other issues that were identified in the first and second notices may be addressed in a future separate rulemaking or within other current rulemakings.

SUMMARY/RESPONSE TO COMMENTS RECEIVED AT THE FIRST PUBLIC HEARING

On June 2, 2004, the air pollution control board (board) conducted the first public hearing/board meeting concerning the development of new rules 326 IAC 1-2-52.2, 326 IAC 1-2-52.4, and 326 IAC 1-2-82.5 and amendments of 326 IAC 1-2-52 and 326 IAC 1-3-4. No comments were made at the first hearing.

326 IAC 1-2-52

326 IAC 1-2-52.2

326 IAC 1-2-52.4

326 IAC 1-2-82.5

326 IAC 1-3-4

SECTION 1. 326 IAC 1-2-52 IS AMENDED TO READ AS FOLLOWS:

326 IAC 1-2-52 "Particulate matter" defined

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

Affected: IC 13-15; IC 13-17

Sec. 52. **“Particulate matter”** means any airborne finely divided solid or liquid material, excluding uncombined water, with an aerodynamic diameter smaller than one hundred (100) micrometers (μm).

(1) **PM₁₀**: Any particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers (μm) as measured by an applicable reference method specified in 40 CFR Part 50 or by an equivalent or alternative method approved by the commissioner.

(2) **Total suspended particulate (TSP)**: Any particulate matter as measured by the method described in Appendix B of 40 CFR Part 50.

(Air Pollution Control Board; 326 IAC 1-2-52; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2374; filed Apr 13, 1988, 3:35 p.m.: 11 IR 3020)

SECTION 2. 326 IAC 1-2-52.2 IS ADDED TO READ AS FOLLOWS:

326 IAC 1-2-52.2 “PM_{2.5}” defined

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

Affected: IC 13-15; IC 13-17

Sec. 52.2. “PM_{2.5}” means particulate matter with an aerodynamic diameter less than or equal to a nominal two and five-tenths (2.5) micrometers (μm). *(Air Pollution Control Board; 326 IAC 1-2-52.2)*

SECTION 3. 326 IAC 1-2-52.4 IS ADDED TO READ AS FOLLOWS:

326 IAC 1-2-52.4 “PM₁₀” defined

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

Affected: IC 13-15; IC 13-17

Sec. 52.4. “PM₁₀” means any particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers (μm) as measured by an applicable reference method specified in 40 CFR Part 50 or by an equivalent or alternative method approved by the commissioner. *(Air Pollution Control Board; 326 IAC 1-2-52.4)*

SECTION 4. 326 IAC 1-2-82.5 IS ADDED TO READ AS FOLLOWS:

326 IAC 1-2-82.5 “Total suspended particulate” or “TSP” defined

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

Affected: IC 13-15; IC 13-17

Sec. 82.5. “Total suspended particulate” or “TSP” means any particulate matter as measured by the method described in Appendix B of 40 CFR Part 50. *(Air Pollution Control Board; 326 IAC 1-2-82.5)*

SECTION 5. 326 IAC 1-3-4, AS AMENDED AT 27 IR 2224, SECTION 1, IS AMENDED TO READ AS FOLLOWS:

326 IAC 1-3-4 Ambient air quality standards

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

Affected: IC 13-15; IC 13-17

Sec. 4. (a) ~~The following ambient~~ **All measurements of air quality that are expressed as mass per unit volume, micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), other than for the particulate matter (PM₁₀ and PM_{2.5}) standards, shall be corrected to a reference temperature of twenty-five (25) degrees Celsius and to a reference pressure of seven hundred sixty (760) millimeters of mercury (one thousand thirteen and two-tenths (1,013.2) millibars), as micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Measurements of PM₁₀ and PM_{2.5}, for purposes of the standards contained in subsection (b)(7) and (b)(8), shall be reported based on actual ambient air volume measured at the actual ambient temperature and pressure at the monitoring site during the measurement period.**

(b) Ambient air quality standards are as follows:

(1) Sulfur oxides as sulfur dioxide (SO₂) requirements are as follows:

(A) For primary standards, the following values shall represent the maximum permissible ambient air quality levels:
(i) Eighty (80) µg/m³ (three-hundredths (0.03) parts per million (ppm)) annual arithmetic mean **not to be exceeded in a calendar year.**

(ii) Three hundred sixty-five (365) µg/m³ (fourteen-hundredths (0.14) ppm) maximum twenty-four (24) hour average concentration not to be exceeded more than ~~one (1) day~~ **once per calendar year. The twenty-four (24) hour averages shall be determined from successive nonoverlapping three (3) hour blocks starting at midnight each calendar day.**

(B) For secondary standards, the following value shall represent the maximum permissible ambient air quality levels: one thousand three hundred (1,300) µg/m³ (five-tenths (0.5) ppm) maximum three (3) hour concentration not to be exceeded more than once per year. **The three (3) hour averages shall be determined from successive nonoverlapping three (3) hour blocks starting at midnight each calendar day.**

(C) SO₂ values may be converted to ppm using the conversion factor two thousand six hundred twenty (2,620) µg/m³ = one (1) ppm.

(2) Total suspended particulates (TSP) requirements are as follows:

(A) For primary standards, the following values shall represent the maximum permissible ambient air quality levels:

(i) Seventy-five (75) µg/m³ annual geometric mean.

(ii) Two hundred sixty (260) µg/m³ maximum twenty-four (24) hour average concentration not to be exceeded more than one (1) day per year.

(B) For secondary standards, the following value shall represent maximum permissible ambient air quality levels: one hundred fifty (150) µg/m³ maximum twenty-four (24) hour average concentration not to be exceeded more than one (1) day per year.

(3) Carbon monoxide (CO) requirements are as follows:

(A) For primary and secondary standards, the following values shall represent the maximum permissible ambient air quality levels:

(i) Ten (10) milligrams per cubic meter (mg/m³) (ten thousand (10,000) µg/m³) (nine (9) ppm) maximum eight (8) hour average concentration not to be exceeded more than once per year.

(ii) Forty (40) mg/m³ (forty thousand (40,000) µg/m³) (thirty-five (35) ppm) maximum one (1) hour average concentration not to be exceeded more than once per year.

(B) CO values may be converted to ppm using the conversion factor one thousand one hundred forty-five (1,145) µg/m³ = one (1) ppm.

(4) Ozone (O₃) requirements ~~shall be~~ **are** as follows:

(A) For the one (1) hour ozone standards, the level of the one (1) hour primary and secondary ambient air quality standards for ozone measured by a reference method based on 40 CFR 50, Appendix D* and designated in accordance with 40 CFR 53* is twelve-hundredths (0.12) ppm (two hundred thirty-five (235) µg/m³). The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above twelve-hundredths (0.12) ppm (two hundred thirty-five (235) µg/m³) is equal to or less than one (1) as determined by 40 CFR 50, Appendix H*.

(B) For the eight (8) hour ozone standards, the:

(i) level of the eight (8) hour primary and secondary ambient air quality standards for ozone, measured by a reference method based on 40 CFR 50, Appendix D* and designated in accordance with 40 CFR 53*, is eight-hundredths (0.08) ppm, daily maximum eight (8) hour average; and

(ii) eight (8) hour primary and secondary ozone ambient air quality standards are met at an ambient air quality monitoring site when the average of the annual fourth highest daily maximum eight (8) hour average ozone concentration is less than or equal to eight-hundredths (0.08) ppm as determined in accordance with 40 CFR 50, Appendix I*.

(C) O₃ values may be converted to ppm using the conversion factor one thousand nine hundred sixty-five (1,965) µg/m³ = 1.0 ppm.

(5) Nitrogen dioxide (NO₂) requirements ~~shall be~~ **are** as follows:

(A) For primary and secondary standards, the following value shall represent the maximum permissible ambient air quality level: one hundred (100) µg/m³ (five-hundredths ~~(0.05)~~ **(0.053)** ppm) annual arithmetic mean **concentration in a calendar year.**

(B) NO₂ values may be converted to ppm using the conversion factor one thousand eight hundred eighty (1,880)

$\mu\text{g}/\text{m}^3 = \text{one (1) ppm.}$

(6) Lead (Pb): For primary and secondary standards, the following value shall represent the maximum permissible ambient air quality level: one and five-tenths (1.5) micrograms lead per cubic meter of air (μg of Pb/ m^3), averaged over a calendar quarter and measured as elemental lead.

(7) PM₁₀: For primary and secondary standards, the following values shall represent the maximum permissible ambient air quality levels:

(A) Fifty (50) $\mu\text{g}/\text{m}^3$ annual arithmetic mean. The standards are attained when the expected annual arithmetic mean concentration, as determined in accordance with 40 CFR 50, Appendix K*, is less than or equal to fifty (50) $\mu\text{g}/\text{m}^3$.

(B) One hundred fifty (150) $\mu\text{g}/\text{m}^3$ maximum twenty-four (24) hour average concentration. The standards are attained when the expected number of days per calendar year with a twenty-four (24) hour average concentration above one hundred fifty (150) $\mu\text{g}/\text{m}^3$, as determined in accordance with 40 CFR 50, Appendix K, * is equal to or less than one (1).

(8) PM_{2.5}: For primary and secondary standards, the following values shall represent the maximum permissible ambient air quality levels:

(A) Fifteen (15) micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) annual arithmetic mean concentration. The standards are attained when the annual arithmetic mean concentration is less than or equal to fifteen (15) $\mu\text{g}/\text{m}^3$, as determined in accordance with 40 CFR 50, Appendix N* and measured in the ambient air as PM_{2.5} by either:

**(i) a reference method based on 40 CFR 50, Appendix L*, and designated in accordance with 40 CFR 53*;
or**

(ii) an equivalent method designated in accordance with 40 CFR 53*.

(B) Sixty-five (65) $\mu\text{g}/\text{m}^3$ twenty-four (24) hour average concentration. The standards are attained when the ninety-eighth percentile twenty-four (24) hour concentration is less than or equal to sixty-five (65) micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), as determined in accordance with 40 CFR 50, Appendix N and measured in the ambient air as PM_{2.5} by either:

**(i) a reference method based on 40 CFR 50, Appendix L*, and designated in accordance of 40 CFR 53*;
or**

(ii) an equivalent method designated in accordance with 40 CFR 53*.

*These documents are 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 1-3-4; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2378; filed Apr 13, 1988, 3:35 p.m.: 11 IR 3020; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed May 21, 2002, 10:20 a.m.: 25 IR 3055; filed Mar 9, 2004, 3:45 p.m.: 27 IR 2224*)

Notice of Public Hearing

Under IC 4-22-2-24, IC 13-14-8-6, and IC 13-14-9, notice is hereby given that on September 1, 2004 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 proposed 326 IAC 1-2-52.2, 326 IAC 1-2-52.4, and 326 IAC 1-2-82.5 and amendments to 326 IAC 1-2-52 and 326 IAC 1-3-4.

The purpose of this hearing is to receive comments from the public prior to final 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. 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, Rule Development 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 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.*

Janet G. McCabe
Assistant Commissioner
Office of Air Quality