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TITLE 326 AIR POLLUTION CONTROL BOARD

FIRST NOTICE OF COMMENT PERIOD

#05-117(APCB)

DEVELOPMENT OF NEW RULES CONCERNING NITROGEN OXIDE AND SULFUR DIOXIDE EMISSIONS FROM FOSSIL FUEL-FIRED POWER PLANTS

PURPOSE OF NOTICE

The Indiana Department of Environmental Management (IDEM) is soliciting public comment on new and amended rules concerning nitrogen oxide and sulfur dioxide emissions from fossil fuel-fired power plants. 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 3; 326 IAC 7; 326 IAC 10; 326 IAC 21; 326 IAC 24.

AUTHORITY: IC 13-14-8; IC 13-17-3-1; IC 13-17-3-4.

SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING

Basic Purpose and Background

Pursuant to Section 107(d) of the Clean Air Act, U.S. EPA designated twenty-four (24) Indiana counties, or portions of counties as being in nonattainment of the National Ambient Air Quality Standards (NAAQS) for ozone and seventeen (17) Indiana counties, or portions of counties as being in nonattainment of the fine particles (PM_{2.5}) NAAQS. The ozone designations were effective June 15, 2004, and Indiana must develop state implementation plans by June 15, 2007, containing emission control measures that will bring those counties into attainment by June 15, 2009. The PM_{2.5} designations were effective April 5, 2005, and Indiana must develop state implementation plans by April 5, 2008, containing emission control measures that will bring those counties into attainment by April 5, 2010.

On March 10, 2005, the U.S. EPA administrator signed the Clean Air Interstate Rule (CAIR) to help counties in the eastern United States meet U.S. EPA air quality standards for ozone and PM_{2.5}. CAIR achieves substantial reductions of sulfur dioxide (SO₂) and nitrogen oxide (NO_x) emissions from fossil fuel-fired power plants. Sulfur dioxide (SO₂) and nitrogen oxide (NO_x) contribute to the long range transport and formation of fine particles (PM_{2.5}) and NO_x contributes to the formation of ground-level ozone. Fine particles and ozone are associated with thousands of premature deaths and illnesses each year. Additionally, these pollutants reduce visibility and damage sensitive ecosystems. U.S. EPA has determined that SO₂ and NO_x emissions from twenty-three (23) states and the District of Columbia contribute to unhealthy levels of fine particles in particular downwind states and NO_x emissions in twenty-five (25) eastern states and the District of Columbia contribute to unhealthy levels of ozone in other particular downwind states. Overall, CAIR covers twenty-eight (28) states, including Indiana, and the District of Columbia. Based on an assessment of the emissions contributing to interstate transport of air pollution and available control measures, U.S. EPA has determined that it is highly cost effective to achieve the required reductions in the twenty-eight (28) states by controlling emissions from power plants.

CAIR provides two compliance options for states to achieve the required emission reductions. The first option is to meet the state's emission budget by requiring power plants to participate in an interstate cap and trade program administered by U.S. EPA that caps emissions in two phases. The cap and trade program is based on the Acid Rain and NO_x Budget Trading programs, including two phases with declining power plant emission caps. The Acid Rain Program is under Title IV of the Clean Air Act, which required two (2) phases of reductions to achieve significant environmental and public health benefits through reductions in emissions of sulfur dioxide (SO₂) and nitrogen oxide (NO_x), the primary causes of acid rain. The NO_x Budget Trading program is a federal rule promulgated in 1998 that affected twenty-two (22) states, including Indiana. It required each state to submit state implementation plan revisions to reduce the regional transport of ozone by reducing summertime NO_x emissions (NO_x SIP call). Indiana adopted a state rule reducing emissions of NO_x from electric generating units (EGUs), large industrial boilers, and cement kilns in June of 2001.

CAIR builds upon these two regulatory programs. CAIR's SO₂ annual caps are three and six-tenths (3.6) million tons in 2010 and two and five-tenths (2.5) million tons in 2015. The SO₂ annual trading program is designed to work with the existing Title IV Acid Rain program. Sources will turn in Title IV allowances at a ratio of greater than one (1) to one (1) to ensure reductions beyond Title IV and sources may use pre-2010 allowances at a one (1) to one (1) ratio.

CAIR adds a NO_x annual trading program. The NO_x annual caps are one and five-tenths (1.5) million tons in 2009 and one and three-tenths (1.3) million tons in 2015.

CAIR also includes a NO_x ozone season trading program that will replace the current NO_x Budget Trading Program. The NO_x ozone season caps are five hundred eighty thousand (580,000) tons in 2009 and four hundred eighty thousand (480,000) tons in 2015. Allowances cannot be traded between the NO_x annual and ozone season trading programs. The allowances are considered separate currencies. However, sources will be able to use banked NO_x allowances from the current NO_x Budget Trading Program in the new CAIR ozone season program. NO_x SIP Call sources that are not part of CAIR (i.e., non-electric generating units (nonEGUs)) can also be brought into the ozone season trading program.

When U.S. EPA proposed CAIR, IDEM expressed concern about the inclusion of nonEGUs under the current NO_x Budget Trading Program and what could happen with the energy efficiency and renewable energy (EE/RE) set-asides. As part of CAIR, U.S. EPA will allow nonEGUs under the NO_x Budget Trading Program to be included in the CAIR ozone season program. Another aspect of the current NO_x Budget Trading Program that was not mentioned in CAIR is the EE/ER set-aside. Initial conversations with U.S. EPA seem to indicate that IDEM will be able to include this set-aside in the new rule, but further discussions with U.S. EPA are needed. While interest in the EE/RE set-aside has not been wide spread, IDEM believes this set-aside and the related Clean Energy Credit Program is important. During rulemaking, IDEM will be looking at improvements to the EE/RE program, including possible changes to how the program is implemented and possible expansion to include the CAIR annual NO_x trading program. IDEM seeks comment on possible improvements or changes with the set-aside.

States will have flexibility in allocating NO_x allowances and determining new source set-aside amounts in the NO_x annual and ozone season trading programs, but not for the SO₂ trading program since those allowances are already allocated under the Acid Rain program. States are not required to but may include an individual unit opt-in provision in the state rule. However, states would need to choose an individual opt-in approach consistent with the model rule if participating in the trading program administered by U.S. EPA.

The second option is to meet the state emissions budget for SO₂ and NO_x by reducing emissions from sources other than power plants or power plants in addition to other sources. This option allows states flexibility on how to achieve the required reductions, including which sources to control and whether to join the trading program. Under either compliance option States have eighteen (18) months to submit a State Plan to U.S. EPA. However, there is a streamlined approval process for states that follow the model rule.

U.S. EPA modeling shows that while CAIR helps bring many counties into attainment for PM_{2.5} and ozone, some states may need additional SO₂ and NO_x reductions to achieve attainment in all areas. In Indiana, U.S. EPA modeling predicts the reductions from CAIR will bring all of Indiana into compliance with the ozone standard by the required attainment date of 2009. For PM_{2.5}, U.S. EPA modeling predicts Clark (Greater Louisville), Marion, and Lake counties will not meet the standard by the required attainment date of 2010. Measured PM_{2.5} levels in Lake County currently meet the ambient air quality standard. On the other hand, the Lake Michigan Air Directors Consortium (LADCO), the Midwest states' technical support organization, has conducted modeling that predicts the CAIR reductions will leave Hamilton County just above the ozone standard and Marion County above the PM_{2.5} standard. LADCO is still evaluating data for Lake and Porter Counties in the Greater Chicago nonattainment area. The most recent (2002-2004) measured air quality in Lake and Porter Counties meets both the ozone and PM_{2.5} standards. Further modeling later this year should determine whether "beyond CAIR" controls will be needed for ozone or PM_{2.5} attainment in Indiana.

IDEM is considering different options regarding the location of CAIR in the Indiana Administrative Code. One option is to adopt the nitrogen oxide standards and trading program in Article 10, Emission Limitations for Specific Types of Operations and the sulfur dioxide standards and trading program in Article 7, Sulfur Dioxide Rules. In 2009, CAIR NO_x would supercede the NO_x SIP Call rules. So either a sunset date would need to be added to the NO_x SIP call rules in Article 10 or the NO_x SIP call rules would need to be amended and integrated with the new CAIR NO_x rules. Another option is to add a new article for power plants that would address both CAIR and the Clean Air Mercury Rule (CAMR). IDEM invites comments and suggestions on placement of the CAIR in administrative code.

Alternatives To Be Considered Within the Rulemaking

Alternative 1. Adopt federal cap and trade rule. There are two options within this alternative. The first option is to adopt the model cap and trade rule included in CAIR with U.S. EPA's language regarding allowance allocation and opt-in provisions. The second option is to adopt the model cap and trade rule, but select a different allowance allocation methodology that either includes or does not include an opt-in provision, i.e., flexibility as allowed in the federal rule.

- 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. Adopt CAIR rule with modifications, for example, lower statewide caps (withholding allowances) or unit-specific emission limits to bring all Indiana counties into attainment.

- Is this alternative an incorporation of federal standards, either by reference or full text incorporation? No.
- Is this alternative imposed by federal law or is there a comparable federal law? Yes, CAIR was signed on March 10, 2005.
- If it is a federal requirement, is it different from federal law? Yes.
- If it is different, describe the differences. The federal program provides for higher caps on SO₂ and NO_x emissions and no unit-specific limits.

Alternative 3. Do not adopt the federal rule and obtain reductions either from other sources or EGUs plus additional sources.

- Is this alternative an incorporation of federal standards, either by reference or full text incorporation? No.
- Is this alternative imposed by federal law or is there a comparable federal law? Yes, CAIR signed on March 10, 2005.
- If it is a federal requirement, is it different from federal law? Yes.
- If it is different, describe the differences. This option would not follow U.S. EPA's model rule for obtaining reductions in SO₂ and NO_x in the most cost effective manner.

Applicable Federal Law

This rulemaking is related to the federal Clean Air Interstate Rule (CAIR) signed by the U.S. EPA administrator on March 10, 2005. The federal rule has not yet been published in the Federal Register.

Potential Fiscal Impact

Potential Fiscal Impact of Alternative 1. Adopting the model rule would have no additional state fiscal impact since the requirements are already imposed under federal law. U.S. EPA estimates for the affected CAIR states, that the projected annual costs of CAIR to the power industry are two and four-tenths (\$2.4) billion dollars in 2010 and three six-tenths (\$3.6) billion dollars in 2015. These costs represent the compliance cost to the electric generating industry of reducing SO₂ and NO_x emissions to meet the caps set forth in CAIR. When fully implemented, CAIR will reduce SO₂ emissions in twenty-eight (28) states and the District of Columbia by over seventy (70) percent and NO_x emissions by over sixty (60) percent from 2003 levels. These reductions will result in eighty-five (\$85) to one-hundred (\$100) billion dollars in health benefits and nearly two (\$2) billion dollars in air visibility benefits per year by 2015 and will substantially reduce premature mortality in the eastern United States. Adopting alternative allowance allocation methodology or opt-in provisions could have a fiscal impact on power plants; the state invites comments on such alternatives and their cost.

Potential Fiscal Impact of Alternative 2. More stringent caps could have an additional fiscal impact but the department has not quantified that impact, and invites comments on the fiscal impact.

Potential Fiscal Impact of Alternative 3. The fiscal impact would depend upon the sources regulated and how they are regulated, so potential fiscal impact would have to be determined later in the rulemaking process.

Public Participation and Workgroup Information

An external workgroup has been established to discuss issues involved in this rulemaking. The workgroup is for both CAMR and CAIR rulemakings, referred to as the "Utility Rules Workgroup." The workgroup is made up of IDEM staff and a cross-section of stakeholders. If you wish to provide comments to the workgroup on the rulemaking, attend meetings, or have suggestions related to the workgroup process, please contact Susan Bem, Rules Section, Office of Air Quality at (317) 233-5697 or (800) 451-6027 (in Indiana). Please provide your name, phone number and email address, if applicable, and where you can be contacted. A workgroup meeting to discuss this rulemaking has been scheduled for June 16, 2005 at 1:00 P.M.. The meeting will be held in the Indiana Government Center South Conference Center, Room #18 located at 402 West Washington Street, Indianapolis, Indiana. More information about meeting location can be found on IDEM's Web site at: http://www.in.gov/serv/eventcal?PF'idem&Clist'16_153_154_155_156

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:

#05-117(APCB) CAIR Rule
Susan Bem 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 IDEM receptionist on duty at the tenth 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 Rules Section at (317) 233-0426.

COMMENT PERIOD DEADLINE

Comments must be postmarked, faxed, or hand delivered by July 5, 2005.

Additional information regarding this action may be obtained from Susan Bem, Rules Section, Office of Air Quality, (317) 233-5697 or (800) 451-6027 (in Indiana).

Kathryn A. Watson, Chief
Air Programs Branch
Office of Air Quality