ILLINOIS POLLUTION CONTROL BOARD
October 6, 1988

IN THE MATTER OF:	)	
	)	
PROPOSED AMENDMENTS TO	)	
35 ILL. ADM. CODE 201,	)	R87-38
SUBPARTS J & L (Self-Monitoring)	)	

PROPOSED RULE SECOND NOTICE

OPINION AND ORDER OF THE BOARD (by J.D. Dumelle):

This matter comes before the Board on a regulatory proposal filed November 10, 1987 jointly by the Illinois Environmental Protection Agency (Agency), Citizens for a Better Environment (CBE), and the Illinois Manufacturers Association (IMA). The joint proposal seeks to amend 35 Ill. Adm. Code 201.281 and to add Subpart L: Continuous Monitoring, 35 Ill. Adm. Code 201.401, Continuous Monitoring Requirements. The effect of the amendment and new regulations would be to require self-monitoring of air emissions of certain fossil fuel-fired steam generators, sulfuric acid plants and nitric acid plants and petroleum refineries. On February 25, 1988, the Board proposed for First Notice a rule which is substantially the same as that originally proposed. The proposed rule was published in the Illinois Register on March 18, 1988.

Two comments were received after First Notice publication. On May 11, 1988 the Department of Commerce and Community Affairs (DCCA) filed a comment which stated that the proposed rule will have no effect on small businesses affected by the rule. On April 21, 1988 comments were filed by the United States Environmental Protection Agency (USEPA), Region V, in response to a request for clarification made at the April 8, 1988 hearing. The request for clarification concerned the issues of 1) the cost of Federal promulgation of a continuous emission monitoring (CEM) rule and, 2) whether alternative procedures and requirements must be submitted to USEPA as revisions of the Illinois State Implementation Plan (SIP). This Opinion will address only the April 21, 1988 comments from USEPA.

In response to the first posed question (regarding the costs, if any, of Federal promulgation of a CEM rule), USEPA stated that the State's failure to adopt a CEM rule which satisfies Federal requirements would necessitate USEPA's promulgation of a CEM into the SIP. The cost of work associated with such promulgation would be deducted from Illinois' Federal Assistance allocation. USEPA estimated such cost at $60,000.

In response to the second posed question (whether authorizing alternative but equivalent procedures and

requirements for CEM systems must be submitted to USEPA as revisions of the SIP), USEPA answered affirmatively stating, "USEPA believes this is a necessary requirement of approval of a CEM rule." Additionally, USEPA noted as follows: "In addition, the Illinois rule being adopted should clearly state that these modifications will not be effective until approved by USEPA."

Notwithstanding USEPA's recommendation, the Rule, as proposed today, does not contain language declaring that any modifications will not be effective until approved by USEPA. Doing so would be a departure from past Board practice (other rules do not contain such language) and is unnecessary because all such modifications would be subject to USEPA approval anyway.

With the exception of the changes discussed above, the Board will not alter the substance of the rule proposed on February 25, 1988.

This action was originally commenced as a result of a settlement agreement entered into in the matter of Citizens For A Better Environment, et al. v. Lee M. Thomas, Administrator, USEPA, No. 80 C 0003, a lawsuit filed in the United States District Court for the Northern District of Illinois, Eastern Division. As a result of the above-referenced case the Illinois EPA, CBE and IMA jointly proposed this Docket, which would require continuous self-monitoring of air emissions for certain fossil fuel-fired steam generators, sulfuric acid plants, nitric acid plants and petroleum refineries.

In specific, fossil fuel-fired steam generators with annual average capacity factor greater than 30%, as reported to the Federal Power Commission in 1974, or as otherwise demonstrated to the IEPA, will be required to monitor air emissions for opacity unless the generator is less than 250 million Btu per hour heat input or if gas is the only fuel burned, or if oil or a mixture of gas and oil is utilized, when the source can comply with the applicable regulations regarding particulate matter and opacity without collection equipment and the source has never been found to be in violation of visible or particulate emission regulations. Additionally, these same fossil fuel-fired steam generators will also be required to monitor for nitrogen oxides when there is greater than 1000 million Btu per hour heat input, and when located in an area where the USEPA has decided that a control strategy for nitrogen dioxide is necessary; and when the owner or operator has not demonstrated emissions to be less than 30% below the applicable emission standards.

Similarly these same fossil fuel-fired steam generators must also self-monitor for sulfur dioxide when the generator is greater than 250 million Btu per hour heat input and has installed and operates sulfur dioxide pollution control equipment.

Finally, these same fossil fuel-fired steam generators must also self-monitor for oxygen or carbon dioxide when measurements of oxygen and carbon dioxide in the flue gas are required to convert sulfur dioxide or nitrogen oxide emissions data to units of applicable emission standards.

In addition to the fossil fuel-fired steam generators referenced above certain other industrial plants will also be required to conduct self-monitoring. Sulfuric acid plants of greater than 300 tons per day production capacity (expressed as 100 percent acid) will monitor for sulfur dioxide at each point of sulfur dioxide emissions. Nitric acid plants of greater than 300 tons per day production capacity (expressed as 100 percent acid) located in areas designated by USEPA as requiring a control strategy for nitrogen dioxide will be required to monitor for nitrogen oxides at each point of nitrogen oxide emissions. And petroleum refineries shall monitor for opacity at each catalyst regenerator for fluid bed catalytic cracking units of greater than 20,000 barrels per day fresh feed capacity.

The proposed regulation contains a provision allowing for alternative self-monitoring upon a demonstration that continuous monitoring is technically unreasonable or infeasible or due to extreme economic burden. Alternative self-monitoring requirements would be imposed by permits issued by the IEPA.

Certain emission sources will be exempt from the self-monitoring requirements. These include emissions sources subject to new source performance standards and any source not subject to either the applicable emission limitation established pursuant to the Act or Board regulation or when an alternative, adjusted or site-specific standard has been set by the Board.

The proposed regulation sets forth the data which is required to be reported to the IEPA, including, inter alia, starting times and dates, durations, magnitudes etc.... The proposed regulation also contains a provision governing malfunctions of the self-monitoring equipment, stating that monitoring and recording requirements shall not be applicable during malfunctions so long as the owner or operator demonstrates that the malfunction was unavoidable and is being repaired as expeditously as possible.

Finally, the proposed regulation sets forth the manner by which recorded data shall be expressed, the manner by which the recorded data shall be retained and time for compliance.

Consistent with the Board's expedited rulemaking procedures, two merit hearings were held on April 8 and April 22, 1988. The first merit hearing was held in Chicago and the second in Springfield. The hearings were properly noticed and each of the joint proponents attended. Additionally, members of the public and industry attended.

At the April 8, 1988, merit hearing, testimony in support of the proposal was provided by Mr. Lauren Laabs, who spoke on behalf of the Illinois Manufacturers Association. Mr. Laabs testimony explained the history of this proceeding, discussed its relations to USEPA and Illinois' State Implementation Plan, and set forth a thorough explanation of the proposed regulation. Next, Mr. Frederick Smith, Manager of the Source Emissions Testing Unit of the Division of Air Pollution Control of the IEPA was called by joint proponent, IEPA. Mr. Smith testified on behalf of the proposal and further explained the proposal.

The second merit hearing of April 22, 1988 contained no new prepared testimony by joint proponents. However, representatives from industry did speak to the proponent and asked questions. The second merit hearing consisted mainly of follow-up questions, suggested language changes to correct typographical errors and a statement from Bill Denham of the Illinois Department of Energy and Natural Resources stating that if all economic data were timely provided, a decision on the necessity of a EcIS could be rendered shortly.

On June 27, 1988, the Department of Energy and Natural Resources (DENR) filed a negative declaration stating its determination that the preparation of a formal economic impact study is not necessary in this proceeding. The negative declaration was based on DENR's finding that the cost of a formal study is economically unreasonable in relation to the value of the study to the Board in determining the adverse economic impact of the regulation. On August 4, 1988 the Board was notified of the concurrence by the Economic and Technical Advisory Committee (ETAC) in DENR's negative declaration.

MOTION TO REVISE PROPOSED REGULATORY LANGUAGE

On June 29, 1988 the Illinois Manufacturers' Association (IMA) proposed minor changes to the proposed language. The proposed language essentially corrects typographical errors and provides suggested clarifying language for the proposed rule. The proposed language does not alter the substance of the original regulatory language and was not opposed by co-proponents.

The proposed changes were as follows:

Section 201.401(a)(2),	"... the production being expressed as 100 percent acid ..."
Section 201.401(a)(3),	"nitric acid plants of greater..."
Section 201.401(b),	"Set forth in:

	1) paragraphs 3.1 through 3.8 of 40 CFR 51, Appendix P (1987). This incorporation includes no later amendments or editions; and 2) relevant portions of 35 Ill. Adm. 230, Appendix A & B."
Section 201.402,	"... continuous monitoring system or device"
Section 201.403(a),	"... new source performance standard adopted by USEPA pursuant to Section 111 of the Clean Air Act and made applicable in Illinois pursuant to 9.1 of the Act; or ..."
Section 201.401,	"... repaired as expeditously as is practicable."
Section 201.405(a)(7),	"other information, including but not limited to, monitor location, monitor maintenance records and source operation hours, which the Agency may require by permit."
Section 201.406(a),	"... procedures specified either in 35 Ill. Adm. Code 230, or in any applicable monitoring requirements which are part of a new source performance standard adopted by USEPA pursuant to Section 111 of the Clean Air Act and made applicable in Illinois pursuant to Section 9.1 of the Act; or ..."
Section 201.406(b),	"... 40 CFR 51, Appendix P, paragraph 5, (1987). This incorporation includes no later amendments or editions; or ..."
Section 201.408,	"... this schedule shall provide that monitoring and recording begin within 18 months..."

Except for the suggested language change in Section 201.401(b), supra, the Board does hereby grant proponent's Motion To Revise Proposed Regulatory Language. Section 201.401(b) has been corrected to reflect the substantive change sought by Petitioners; but the adopted language is different than that proposed for grammatical reasons.

ORDER

The Board hereby adopts the following amendments for Second Notice review. The Clerk is directed to submit these proposed amendments to the Joint Committee On Administrative Rules.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER a: PERMITS AND GENERAL PROVISIONS

PART 201
PERMITS AND GENERAL PROVISIONS

SUBPART J: MONITORING AND TESTING

Section
201.281 Monitoring Equipment
201.282 Testing
201.283 Records and Reports

SUBPART L: CONTINUOUS MONITORING

Section
201.401 Continuous Monitoring Requirements
201.402 Alternative Monitoring
201.403 Exempt Sources
201.404 Monitoring System Malfunction
201.405 Excess Emission Reporting
201.406 Data Reduction
201.407 Retention of Information
201.408 Compliance Schedules

AUTHORITY: Implementing Section 10 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111½ pars. 1010 and 1027)

SOURCE: Adopted as Chapter 2: Air Pollution, Part I: General Provisions, in R71-23, 4 PCB 191, filed and effective April 14, 1972; amended in R78-3 and 4, 35 PCB 75 and 243, at 3 Ill. Reg. 30, p. 124, effective July 28, 1979; amended in R80-5, at 7 Ill. Reg. 1244, effective January 21, 1983; codified at 7 Ill. Reg. 13579; amended in R82-1 (Docket A) at 10 Ill. Reg. 12628, effective July 7, 1986; amended in R87-38 at ____ Ill. Reg. _____, effective _____.

SUBPART J: MONITORING AND TESTING

Section 201.281 Permit Monitoring Equipment Requirements

a) Except as otherwise provided at Subpart L of this Part, eEvery emission source or air pollution control equipment shall be equipped with such monitoring instruments as may be required ~~in a procedure adopted by the Agency or~~ as a condition to a permit issued by the Agency. ~~Such procedures and formats, and revisions thereto, shall not become effective until filed with the Secretary of State as required by the APA.~~ The Agency permit may require that such monitoring instruments be continuous or intermittent. Such monitoring instruments shall be installed, maintained and operated at the expense of the owner or operator of the emission source or air pollution control equipment. A permit condition to monitor is appealable to the Board pursuant to Section 40 of the Act.

~~b) Before adopting or making substantive changes in any such procedures adopted by the Agency, the Agency shall:~~

~~1) Publish a summary of the proposed changes in the Board Newsletter or a comparable publication at the Agency's expense; and~~

~~2) Provide a copy of the full text of the proposed changes to any person who in writing so requests; and~~

~~3) Defer adoption of the changes for 45 days from the date of publication to allow submission and consideration of written comments on the proposed changes.~~

(SOURCE: Amended at ___ Ill. Reg. ___, effective _____)

SUBPART L: CONTINUOUS MONITORING

Section 201.401 Continuous Monitoring Requirements

a) Except as otherwise provided at Section 201.402 and Section 201.403, the owners and operators of the following emission sources shall install, operate, calibrate and maintain continuous monitoring equipment for the indicated pollutants.

1) Fossil fuel-fired steam generators with an annual average capacity factor greater than 30%, as

reported to the Federal Power Commission for calendar year 1974, or as otherwise demonstrated to the Agency, shall monitor for:

A) Opacity, when the steam generator is greater than 250 million Btu per hour heat input unless:

i) Gas is the only fuel burned; or

ii) Oil or a mixture of gas and oil are the only fuels burned and the source can comply with the applicable regulations for particulate matter and opacity without use of collection equipment for particulate matter and the source has never been found to be in violation of an applicable visible or particulate emission standard through any administrative or judicial proceedings.

B) Nitrogen oxides, when:

i) The steam generator is greater than 1000 million Btu per hour heat input;

ii) The facility is located in an Air Quality Control Region where the Administrator, U.S. Environmental Protection Agency, has specifically determined that a control strategy for nitrogen dioxide is necessary to attain the national standards; and

iii) The owner or operator has not demonstrated during compliance tests that the source emits nitrogen oxides at levels less than 30% or more below the applicable emissions standards.

C) Sulfur dioxide, when the steam generator is greater than 250 million Btu per hour heat input and which has installed and operates sulfur dioxide pollution control equipment.

D) Percent oxygen or carbon dioxide, when measurements of oxygen or carbon dioxide in the flue gas are required to convert sulfur dioxide or nitrogen oxide continuous emissions data to units of the applicable emission standard.

2) Sulfuric acid plants of greater than 300 tons per day production capacity, the production being expressed as 100 percent acid, shall monitor for sulfur dioxide at each point of sulfur dioxide emission.

3) Nitric acid plants of greater than 300 tons per day production capacity, the production capacity being expressed as 100 percent acid, located in an Air Quality Control Region where the Administrator, U.S. Environmental Protection Agency, has specifically determined that a control strategy for nitrogen dioxide is necessary to attain the national standard, shall monitor for nitrogen oxides at each point of nitrogen oxide emission.

4) Petroleum refineries shall monitor for opacity at each catalyst regenerator for fluid bed catalytic cracking units of greater than 20,000 barrels per day fresh feed capacity.

b) Except for sources permitted to use alternative monitoring pursuant to Section 201.402, compliance with the Illinois emissions limitations by the owners and operators of emission sources required to monitor continuously shall be determined by the use of equipment which meets the performance specifications set forth in paragraphs 3.1 through 3.8 of 40 CFR 51, Appendix P (1987) (this incorporation includes no later amendments or editions), and relevant portions of 35 Ill. Adm. Code 230, Appendix A and B.

(SOURCE: Added at ___ Ill. Reg. effective _____)

Section 201.402 Alternative Monitoring

Alternative monitoring requirements for sources subject to Section 201.401(a) shall be prescribed by permit upon a demonstration by the owner or operator that continuous monitoring is technically unreasonable or infeasible due to physical plant limitations or would impose an extreme economic burden. It shall be demonstrated that the installation or operation of a continuous monitoring system or device:

a) Would not provide accurate determinations of nitrogen dioxide, sulfur dioxide, carbon dioxide, percent oxygen, or opacity; or

b) Cannot be installed due to the facility's physical constraints such as size, space or strength of materials, or due to safety considerations; or

c) Would impose an extreme economic burden in proportion to the significance of the monitoring information which would be provided.

(SOURCE: Added at ___ Ill. Reg. effective _____)

Section 201.403 Exempt Sources

The following emission sources are exempt from the requirements of this Subpart:

a) Any source subject to monitoring requirements which are part of a new source performance standard adopted by USEPA pursuant to Section 111 of the Clean Air Act and made applicable in Illinois pursuant to Section 9.1 of the Act; or

b) Any source not subject to either the applicable emission limitation established pursuant to the Act or Board regulation or an alternative, adjusted or site specific standard approved by the Board.

(SOURCE: Added at ___ Ill. Reg. effective _____)

Section 201.404 Monitoring System Malfunction

The monitoring and recording requirements of this Subpart shall not be applicable during any period of a monitoring system or device malfunction if demonstrated by the owner or operator of the source that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

(SOURCE: Added at ___ Ill. Reg. effective _____)

Section 201.405 Excess Emission Reporting

Owners and operators of sources subject to the continuous monitoring requirements of this Subpart shall report the following information:

a) For periods of emissions in excess of any emission limitation adopted by the Board:

1) The starting date and time of the excess emissions;

2) The duration of the excess emissions;

3) The magnitude of excess emissions;

4) The cause of the excess emissions, if known;

5) Corrective actions and actions taken to lessen the emissions;

6) The operating status of the monitoring system, including the dates and times of any periods during which it was inoperative; and

7 Other information, including but not limited to, monitor location, monitor maintenance records and source operating hours, which the Agency may require by permit.

b) For gaseous sulfur dioxide, percent oxygen, or carbon dioxide measurements, the averaging period used for data reporting shall correspond to the averaging period used to determine compliance with the applicable emission limitation. The report shall consist of emission averages in the units of the applicable limitation for each averaging period during which the limitation was exceeded.

c) For opacity measurements, the report shall be based on six minute averages of opacity and contain

1) The percent opacity for each continuous opacity excess period; and

2) The start and stop time in six minute increments of any opacity measurements in excess of the limitation.

d) If there were no excess emissions during the reporting period, the report shall so state and include information about the operating status of the monitoring equipment during that period.

e) Reports shall be submitted within 45 days of the end of every calendar quarter.

(SOURCE: Added at ___ Ill. Reg. effective _____)

Section 201.406 Data Reduction

To convert monitoring data to the units of the emission limitation, owners and operators of sources subject to this Subpart shall use:

a) The procedures specified in 40 CFR 60 (1985); or where necessary

b) The procedures specified in 40 CFR 51, Appendix P, paragraph 5 (1987). This incorporation includes no later amendments or editions; or

c) Alternative measurement and data reduction methods may be utilized if demonstrated by the owner or operator of the affected source that such alternative methods will provide information equivalent to the information which would be provided by the above methods.

(SOURCE: Added at ___ Ill. Reg. effective _____)

Section 201.407 Retention of Information

Owners and operators of sources which are subject to the monitoring and recording requirements of this Subpart shall maintain files of emission information at the facility and make the information available to the Agency upon request. This information shall be retained for at least two years from the date of collection, and shall include:

a) Emission measurements;

b) Continuous monitoring system performance testing measurements;

c) Performance evaluations;

d) Calibration checks;

e) Maintenance and adjustments performed;

f) Quarterly reports submitted pursuant to Section 201.405; and

g) Data reduction information used pursuant to Section 201.406.

(SOURCE: Added at ___ Ill. Reg. effective _____)

Section 201.408 Compliance Schedules

Owners and operators of sources subject to Section 201.401 shall install all necessary equipment and monitor in accordance with the compliance schedule contained in the permit issued by the Agency. This schedule shall provide that monitoring and recording begin within 18 months of this Subpart being approved

by the USEPA as a revision to the State Implementation Plan, unless the owner or operator has been granted a variance pursuant to Section 35(a) of the Act allowing a longer compliance schedule.

(SOURCE: Added at ___ Ill. Reg. effective _____)

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Proposed Opinion and Order was adopted on the 6th day of October, 1988 by a vote of 7-0.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board