

ILLINOIS POLLUTION CONTROL BOARD
February 6, 1986

IN THE MATTER OF:)
)
AMENDMENTS TO 35 ILL. ADM.) R84-28
CODE 214, SULFUR LIMITATIONS)

PROPOSED RULE. SECOND NOTICE.

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

This matter comes before the Board upon a July 13, 1984 proposal to amend 35 Ill. Adm. Code 214, Subpart C: Existing Solid Fuel Combustion Emission Sources, filed on behalf of the Illinois Environmental Protection Agency (Agency). That proposal was amended by the Central Illinois Light Company (CILCO) on August 23, 1984, and further amended by joint motion of the Agency and Caterpillar Tractor Company on September 10, 1985. First notice was published in the Illinois Register on November 15, 1985, (9 Ill. Reg. 17728), and the first notice period ended on January 2, 1986. During the first notice period the following documents were filed with the Board:

1. Agency Comments filed November 18, 1985;
2. P.C.#1 filed on behalf of Citizens for a Better Environment (CBE) on November 20, 1985;
3. P.C.#2 filed on behalf of CILCO on December 3, 1985;
4. P.C.#3 filed on behalf of CBE on December 17, 1985;
5. Format Memorandum filed on behalf of the Administrative Code Division of the Secretary of State's Office dated December 20, 1985;
6. P.C.#4 filed on behalf of Caterpillar on December 23, 1985;
7. P.C.#5 filed by CILCO on December 30, 1985.

These filings give rise to three issues for Board consideration: the applicability of 35 Ill. Adm. Code 214.101(c) to new subsections 214.141(c) and (d); the question of the adequacy of CILCO's compliance demonstration based on block averages rather than running averages; and format changes requested by the Administrative Code Division.

Applicability of 35 Ill. Adm. Code 214.101(c)

The Agency's original proposal would have established a new Subpart G of Part 214 setting sulfur dioxide emission limitations applicable to sources located in the City of East Peoria and in Hollis Township which were equipped with flue gas desulfurization systems as of December 1, 1980. In its Proposed Opinion of October 10, 1985, however, the Board concluded that placement of

those rules as proposed was inconsistent with the format established for Part 214 and instead placed them at Section 214.141(c) and (d).

In its comments the Agency points out that by placing the proposed rules in Section 214.141 the Board has inadvertently made the coal-averaging provision of Section 214.101(c) applicable to them. It, therefore, recommends that the language of the proposed rules be modified such that the coal-averaging provision is made specifically inapplicable. The Agency alleges that the coal averaging provisions were not contemplated by the original proposal and that its suggested modification would increase the likelihood of USEPA approval of the rules. In PC#4, however, Caterpillar opposes the Agency's proposed modification, contending that it would limit management options and that the issue was not addressed at hearing.

By placing the proposed rules in Section 214.141 the Board did not intend to make any substantive changes in the proposal: the change was for consistency of format, nothing more. Clearly, the coal-averaging provision would have been inapplicable to the rule as proposed by the Agency (and as agreed to by Caterpillar). Further, as Caterpillar notes, this issue was not addressed at hearing; however, the Board draws the opposite conclusion from that fact. Since the original proposal would not have invoked the coal-averaging provision and since there is nothing in the record to support the applicability of that provision, that provision should not be made applicable.

Therefore, the Board will amend its first notice proposal by making the word "Section" plural and adding the words "and 214.101(c)" after the number "214.122" in subsections 214.141(c) and (d).

Running Versus Block Averages

In P.C.#1 and #3 Citizens for a Better Environment objects to the first notice proposal to relax the emission limit for CILCO's E. D. Edwards Station "because the modeling analysis underestimated the impact of the plant's emissions on air quality in the Peoria area." (P.C.#1). CBE argues that a running average approach should have been used to demonstrate attainment rather than a block average approach. CILCO responded to CBE's objection in P.C.#2 and #5 arguing, essentially, that for a period of time block averages were required, that they remain federally acceptable, and that given the conservative aspects of the modeling presented, its proposal is adequately supported.

The National Ambient Air Quality Standard (NAAQS) for sulfur dioxide sets maximum allowable concentration limitations for any 24-hour period and specifies that such limits may not be exceeded more than once each year. In order to demonstrate compliance

with the NAAQS for sulfur dioxide at its proposed emission rate of 6.6 pounds per million Btu of actual heat input, CILCO presented a modeling analysis based upon a midnight-to-midnight block average., However, as CBE points out:

The NAAQS established by EPA for SO₂ set maximum allowable concentration limits for any 24-hour period and specify that such concentration limits may not be exceeded more than once per year. The regulations specify the duration periods as "24-hour" concentrations rather than "daily." This is consistent with the health basis for the short-term standard since the adverse effects are associated with exposures for 24-hour periods without reference to the time of day that exposure begins.

Repeated exposures at levels above the 24-hour standard is prohibited, regardless of when exposure begins. The state must be equally concerned about a peak exposure that occurs between 3 p.m. one day and 3 p.m. the next day, as about concentrations occurring between midnight and midnight. Suppose that SO₂ levels at some location are low in the morning of a given day, rise to over 365 micrograms per cubic meter by afternoon, remain high until noon of the following day, and then fall. Such an event could produce a 24-hour SO₂ concentration exceeding 365 micrograms that would be overlooked if only midnight-to-midnight periods were examined.

CBE's position is well taken, and the Board agrees with CBE that the running average approach is preferable to a block average approach in that it more accurately reflects the realities of sulfur dioxide exposure. The Board would gladly consider modeling based on the running average approach. However, no such study has been presented to the Board.

What the Board must consider in this proceeding is whether the record contains sufficient evidence to support the adoption of the proposed rule. The Board concludes that it does. While CILCO has not presented the most preferable modeling study, it has presented an acceptable one. The Agency has had an opportunity to examine the study and has supported it. USEPA will have an opportunity to examine it when it is submitted as part of the revision to the State Implementation Plan (SIP). While CBE has made much of the fact that the study is not consistent with the Clean Air Act, USEPA does not require the use of running averages and, in fact, when it attempted to impose

such a requirement upon PPG Industries, that requirement was struck down. [PPG Industries, Inc. v. Costle, 659 F. 2d 1239].

Ultimately, CBE is contending that the best evidence is not before the Board. The Board agrees; however, it must base its decisions on what is before it. In determining that the record supports the adoption of CILCO's proposal, the Board is mindful of Section 9.2 of the Environmental Protection Act which states:

The Agency shall review all Illinois sulfur dioxide emission standards for existing fuel combustion stationary emission sources located within the Chicago, St. Louis (Illinois), and Peoria major metropolitan areas and, if appropriate following such review, propose amendments to such standards to the Board... The standards proposed by the Agency shall be designed to enhance the use of Illinois coal, consistent with the need to attain and maintain the National Ambient Air Quality Standards for sulfur dioxide and particulate matter.

There is no evidence in the record to indicate that adoption of the proposed rules would be inconsistent with the attainment or maintenance of the NAAQS, while there is considerable evidence that it would be consistent. Therefore, while the Board appreciates CBE's concerns, it will not require that new modeling be done using a running average basis.

Format and Typographical Changes

In P.C.#2 CILCO notes minor typographical errors and requests clarification of two statements contained in the October 10, 1985 Proposed Opinion. Further, the Administrative Code Division noted some minor format inconsistencies. None of these matters, however, are substantive, and the Board will, for the most part, make the requested changes. The clarification will appear in the Board's final opinion: the format changes appear in the Order below.

ORDER

The Board hereby proposes for Second Notice the following amendments to:

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER c: EMISSION STANDARDS AND
LIMITATIONS FOR STATIONARY SOURCES

PART 214
SULFUR LIMITATIONS
SUBPART C: EXISTING SOLID FUEL
EMISSION SOURCES

Section 214.140 Scope

This Subpart contains rules which establish general sulfur emissions standards for existing solid fuel emission sources. These may be modified by industry and site-specific rules in Subparts N, et seq.

Section 214.141 Sources Located in Metropolitan Areas

~~This section applies to existing fuel combustion sources located in the Chicago, St. Louis (Illinois) or Peoria major metropolitan areas. Except as otherwise provided in this Part Section, no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any existing fuel combustion source, burning solid fuel exclusively, located in the Chicago, St. Louis (Illinois) or Peoria major metropolitan areas, to exceed ~~2.79 kg~~ 1.8 pounds of sulfur dioxide per MW hr mm Btu of actual heat input (774 nanograms per joule).~~

- a) Sources located in Kankakee or McHenry Counties shall not exceed 6.8 pounds of sulfur dioxide per mm ~~b~~ Btu of actual heat input (~~10.5 kg/MW Hr~~) (2924 nanograms per joule).
- b) Existing industrial sources, not equipped with flue gas desulfurization systems as of December 1, 1980, located in the Peoria major metropolitan area, shall not exceed 5.5 pounds of sulfur dioxide per mm ~~b~~ Btu of actual heat input (~~8.51 kg/MW hr~~) (2,365 nanograms per joule), provided the emissions from any such source located in the City of Peoria exit from a stack which is at least 154 feet (47 meters) in height.
- e) ~~This Section will not apply to the Village of Winnetka Electric Utility Plant until final action on R80-22, Docket B, is taken by the Pollution Control Board (Board).~~

c) Section 214.122 shall not apply to any fuel combustion emission sources equipped with flue gas desulfurization systems as of December 1, 1980, and located in the City of East Peoria as the city boundaries were then defined. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any such sources to exceed 1.4 pounds of sulfur dioxide per mm Btu of actual heat input (602 nanograms per joule).

d) Section 214.122 shall not apply to any fuel combustion emission sources which are capable of firing solid fuel at a heat input of more than 125 mm Btu per hour (36.6 megawatts) and which as of December 1, 1980, are equipped with flue gas desulfurization systems and are located in Hollis Township, Peoria County, as the township boundaries were then defined. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any such source to exceed 1.1 pounds of sulfur dioxide per mm Btu of actual heat input (473 nanograms per joule).

SUBPART X: UTILITIES

Section 214.560 Scope

a) This Subpart contains rules which modify the general sulfur emission rules of Subparts A through M as applied to a given industry or at a given site. General rules include:

1. Subparts B through I: Fuel combustion emission sources and incinerators;
2. Subparts K through M: Process emission sources.

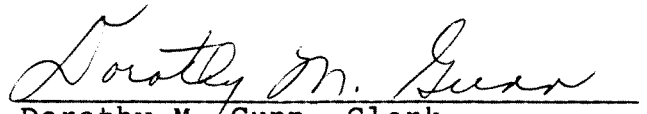
b) These rules have been grouped for the convenience of the public; the scope of each is determined by its language and history. Rules placed in this Subpart include those which appear to be primarily directed at the following major industry groups: electric, gas and sanitary services.

Section 214.561 E. D. Edwards Electric Generating Station

Units 1 and 3 at the E. D. Edwards Electric Generating Station shall not exceed 6.6 pounds of sulfur dioxide per mm Btu of actual heat input (2,838 nanograms per joule). Aggregate emissions from the E. D. Edwards Electric Generating Station, on a 24-hour average basis shall not exceed 34,613 pounds of sulfur dioxide per hour.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 6th day of February, 1986 by a vote of 7-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board