

ILLINOIS POLLUTION CONTROL BOARD

September 4, 1975

IN THE MATTER OF:)
)
PROPOSED AMENDMENTS TO RULE) R74-13
204(f)(1) OF THE ILLINOIS AIR)
POLLUTION CONTROL REGULATIONS)

OPINION AND ORDER OF THE BOARD (by Mr. Henss):

Edwin Cooper, Inc. filed a proposal to amend Rule 204(f)(1) of the Illinois Air Pollution Control Regulations so that the SO₂ emission standard would not apply to Cooper's hydrogen sulfide flares. The proposal would exempt chemical manufacturing plants from the standard through addition of the following underlined language:

Rule 204(f) Sulfur Standards and Limitations for Process Emission Sources

(1) Sulfur Dioxide Standards and Limitations

- (A) Except as further provided by paragraphs (f)(1)(B), (f)(1)(C), and (f)(1)(D) and (f)(1)(E) of this Rule 204, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm....
- (E) Paragraph (f)(1)(A) of this Rule 204 shall not apply to existing hydrogen sulfide flares at a chemical manufacturing plant provided:
- (i) Said flares are operative on existing batch-type processes; and
 - (ii) The hydrogen sulfide emissions being flared are not, at the time of adoption of this subpart(e), passed through existing processes designed to remove sulfur compounds from the flue gasses as provided in subparagraph (D) above; and
 - (iii) The emission of sulfur dioxide into the atmosphere from said flares does not exceed 500 pounds per hour and 3500 pounds per eight-hour period; and

(iv) provided, however, that if emissions controls for said flares become economically reasonable and technically feasible the owner/operator of such hydrogen sulfide flares shall install such controls.

The proposed amendments and a brief statement of reasons supporting the proposal were published in Board Newsletter No. 96 dated January 10, 1975. Public hearings on the proposal were held in Chicago on May 21, 1975 and Springfield on June 2, 1975. Participants in the hearings included the Illinois Environmental Protection Agency and the Illinois Attorney General.

Existing Rule 204(f)(1) was adopted by the Board on April 13, 1972 following extensive public hearings throughout the State. On this Rule the Board stated:

"The process sources covered by Rule 204(f) will usually be sulfuric acid plants and sulfur recovery units. Rook of American Cyanamid (R. 976-985), Weber of Monsanto (R. 1590-1595) and Hall of New Jersey Zinc (Ex. 114, No. 52) suggested 2000 ppm as a reasonable level for existing sulfuric acid plants which could be achieved under normal operating conditions. A stricter concentration limit would require plant derating or addition of auxiliary scrubbing systems and has not been shown to be uniformly necessary to meet air quality standards. Because sulfur recovery units in oil refineries serve as pollution control equipment greatly reducing emissions of noxious sulfur compounds, existing sulfur recovery systems are exempted from meeting the 2000 ppm limit provided they are equipped with tall stacks. Mowers (R. 3527-28) indicated that 10,000 ppm was a normal SO₂ concentration from such equipment, and the Agency's calculations (Ex. 113-I) indicate that stack heights of less than 150 feet will cause ground level concentrations to exceed the air quality standard. New sulfur recovery units will be required to meet the 2000 ppm level, and control processes are available to bring this about (Ex. 114, Nos. 3, 162; Ex. 49)."

Proponent in this matter, Edwin Cooper, Inc., is a Delaware corporation owned by the Burmah Oil Company of Scotland. Cooper operates a chemical manufacturing plant in Sauget, Illinois for the production of petroleum additive components used in lubricating oils. Approximately 133 people are employed at the Sauget plant. Although Proponent produces many different chemicals at this plant, the proposed amendments affect emissions from the production of only two products, zinc dithiophosphate (ZDP) and phosphenate-phenate (PP) compounds.

Both ZDP and PP are marketed nationally and internationally by Proponent with the principle market being large oil companies and independent refineries. ZDP is utilized as an anti-rust, anti-wear additive while PP is a detergent dispersant. Major competitor companies producing ZDP and PP using similar technology include Standard Oil of Indiana, Standard Oil of California, Standard Oil of New Jersey and the Lubrizol Corporation. A smaller competitor, the Elco Corporation, specializes in these same additives. Proponent estimates that it now furnishes about 5% of the international requirements for such additives.

ZDP and PP are produced in 1500 gallon batch reactors in separate areas of Proponent's chemical plant. Certain steps in the production process are considered to be well known chemical reactions while others are considered proprietary by Edwin Cooper. Five ZDP batch reactors are available for the production process which utilizes three reactors in series. This arrangement allows for a maximum of two "trains" operating at the same time. Any or all of the five reactors may be in operation at the same time but neither of the two "trains" are operated at the same process step during such operation.

A single batch of ZDP requires about eight hours of process time from start to finish. The ZDP reactants, phosphorous pentasulfide (P_2S_5) and alcohol, produce one mole of hydrogen sulfide gas (H_2S) per mole of P_2S_5 reacted. Most of the H_2S is vented and flared through a 113' stack forming SO_2 in the flaring process. Assuming complete reaction of the 4400 lbs. of P_2S_5 /batch, Edwin Cooper calculates a theoretical maximum SO_2 emission rate of 316.2 lbs./hr. for the ZDP process (R. 252).

PP is produced in five batch reactors in a separate process area from the ZDP process during a 27 hour process cycle. The reaction chemistry for PP is more complex than that for ZDP. During the reaction step, 2,154 lbs. of P_2S_5 react with polybutane producing H_2S as a by-product. This H_2S is vented and flared through a 148' stack forming SO_2 in the process. Using laboratory data, Edwin Cooper calculates that SO_2 emissions from the PP process amount to 120.5 lbs./hr. Thus the total calculated maximum SO_2 emission rate for the two processes is 436.7 lbs./hr. A calculated maximum eight hour SO_2 emission rate of 3,335.5 lbs. is obtained by adding the maximum eight hour emissions of 2,371.5 lbs. from the ZDP process and 964.0 lbs. from the PP process (R. 253).

In Docket No. PCB 72-516 Edwin Cooper sought a variance from Rule 204(f)(1) for these two process emission sources. After numerous discussions with the Agency on the variance

petition, Cooper withdrew the petition in favor of submitting proposed amendments which are the subject of this proceeding. The record shows that Cooper and the Agency have discussed Edwin Cooper's SO₂ emission problem since 1971.

Edwin Cooper retained Air Resources Inc. in 1972 to furnish information and advice on available SO₂ control technology for the ZDP and PP process emissions. Les Hardison, Vice President of Air Resources Inc., directed all studies performed for Edwin Cooper and prepared the substantial technical reports supporting the proposed amendments.

For Edwin Cooper to meet the 2,000 ppm standard, the following emissions reduction would have to be achieved (E.C. Exhibit #2):

	<u>Present SO₂ Emissions</u>	<u>% Reduction Required to Meet 2,000 ppm standard</u>
ZDP only	76,000	97.58
PP only	37,000	94.80
Combined Total	59,000	96.82

Hardison reviewed a large number of possible abatement techniques during the initial phase of the study. Most of these techniques were abandoned due to poor reliability and economic characteristics. The review ultimately led to the selection of eight processes or techniques which Hardison thought could be technically feasible when applied to Edwin Cooper. Hardison testified that his review also found that none of the eight systems selected had ever been applied to processes similar to that of Edwin Cooper.

Having narrowed the field to eight systems, Hardison proceeded to investigate the economics of each system. Because of inherent differences in the systems, Hardison consulted published information relating to construction costs, system royalties, sulfur credits and additional utilities requirements. In some cases, base estimates for construction had to be estimated by the consultant, Air Resources, Inc. (R. 23).

ARI prepared a "Comparison of Abatement Scheme Costs" (Edwin Cooper Exhibit #2, Table 25), and later updated the cost figures for the eight systems (Edwin Cooper Exhibit #6) to reflect May 1975 prices. A summary reflecting the updated figures follows:

	<u>Annual Operating</u>	<u>Costs, \$/Year</u>			<u>Capital Cost</u>
		<u>Annual Capital</u>	<u>Total Annual</u>	<u>\$/Short Ton Sulfur</u>	
1. Caustic Scrubbing (one unit)	241,227	47,351	288,578	737	210,447
2. Caustic Scrubbing (two units)	241,227	42,187	283,414	723.8	187,496
3. Limestone Scrubbing	144,236	129,102	273,338	698	513,786
4. Modified Claus	118,786	140,622	259,408	663	624,987
5. Stretford	122,659	79,448	202,107	516	353,100
6. Rhodia Cataban	77,953	79,448	157,401	402	353,100
7. Takahax, Ford Bacon and Davis	115,195	79,448	194,643	497	353,100
8. ARI 300	96,182	79,448	176,230	450	353,100

(The reader is directed to Edwin Cooper Exhibit 2, Table 25 and Edwin Cooper Exhibit 6 for additional detail on the systems and cost update quotations.)

Hardison testified that Systems 1 and 2, both caustic scrubbing systems, could be applied at Proponent's plant without extensive pilot work due to their simple and straight forward technology. Each of the remaining six systems would require the installation of a pilot test unit and extensive field testing to insure a workable system that would permit Edwin Cooper to achieve compliance.

Caustic scrubbing, while reasonably applicable to batch type processes, is very costly and generates sodium sulfide as a by-product, according to Hardison. The by-product disposal problem (4,820 lbs./hr.) and high cost for chemicals detract from the attractiveness of this system. High capital costs and by-product disposal (1042 lbs./hr.) are two of the drawbacks associated with limestone scrubbing. Hardison believes the Modified Claus process would offer very serious operating problems for Edwin Cooper. The Modified Claus method is amenable to a continuous process rather than the cyclical processes used at Edwin Cooper's plant.

Hardison testified that systems 5, 6, 7 and 8 are all basically wet-scrubbing processes and appear to provide the most sound basis for application at the Edwin Cooper plant (R. 29). However, as earlier noted, each would require the installation of a pilot test unit and extensive field tests. A pilot test unit capable of evaluating each of the four systems could be constructed in such a manner that modifications suitable to the requirements of each system could be made. The test program would require approximately five months for design of the pilot plant, development of the test program and delivery and installation. Another four months would be required for the actual testing. The minimum cost for such a testing program would be \$50,000 (R. 201).

Installation and operation of any of the eight systems would cause Edwin Cooper to incur a higher cost per unit of sulfur removed than is now currently experienced by other industries (R. 76). This would be so because of the size and the cyclical nature of operations at the plant (R. 44). Hardison testified that the only new SO₂ control system not evaluated in the 1972 study is the Stauffer Liquid Claus Process. He contacted the Stauffer Corporation about the system and was informed that Stauffer currently offers three alternative processes, the Power Claus, the Aqua Claus and the Super Claus. Stauffer indicated that the Super Claus would probably be the most applicable of the three processes due to the high concentration of H₂S involved with the Edwin Cooper plant.

Based upon the information provided, Hardison felt that the Super Claus process is similar to the Modified Claus process except for some additional complicating features. Although the over-all economic situation would not differ markedly from Systems 5 through 8, Hardison testified that the addition of combustion equipment for the Super Claus process would tend to make the process more difficult to operate and control. He added that Stauffer informed him that capital costs for the Stretford Process (System 5) would be on the order of \$500,000 instead of the \$350,000 figure previously reported.

During this study, Hardison also performed dispersion calculations in order to determine the maximum one-hour ground level concentration. According to these calculations the maximum concentration would be 0.344 ppm based on 30 minute averaging times. (The Illinois standard is 0.42 ppm.) In arriving at this value, Hardison used a combination of assumptions which ordinarily provide calculated ground level values comparable to actual observations. However, because the value determined reflected experience and judgment and would possibly fail to find support as rigorous calculations, a sulfur dioxide dispersion study was undertaken to determine if the value would be

substantiated by alternative modeling techniques involving more sophistication and detail.

In the sulfur dioxide dispersion study (Edwin Cooper Exhibit #3), emission data pertaining to the two flare stacks and information derived from the previous study were assembled and converted into a form suitable for use with a generalized set of computer based techniques developed by Air Resources. Weather data from St. Louis' Lambert Field for the year 1971 was obtained in computerized form from the Environmental Data Service. Topographic data was extracted from applicable U. S. G. S. maps.

In order to determine the short-term (1 hour) maximum concentration, Air Resources programmed its ARI Short-Term Display Model with "worse condition" factors to produce the following results (Edwin Cooper Exhibit 3, page V-1):

Critical Wind Speed, MPH	1.75
Critical Stability Class	A(1)
Wind Direction, Degrees	253
Critical Distance Downwind, Ft.	1,520
Maximum Ground-Level Concentration of SO ₂ (one-hour average) ppm	0.701

This maximum concentration has a very low probability of occurrence and is presented as the worst situation which might arise. Additional values were calculated for the critical receptor for each combination of wind speed, wind direction and stability class. The resulting probability distribution was then used to establish the maximum value likely to be reached once per year. As shown in Table 3, page V-2 of Edwin Cooper Exhibit 3, a one-hour SO₂ concentration of 0.41 ppm would not be expected to occur over 99.986% of the days in one year.

ARI next calculated annual average values of concentration over a grid around the plant site. These calculations revealed that a maximum annual SO₂ concentration of 0.0064 ppm would occur at a point northeast of the plant approximately 4,000 ft. distant.

From these calculations ARI concluded that maximum ground level concentrations determined by dispersion modeling techniques were well within both the short-term and long-term federal air quality standards for SO₂.

Hardison testified that the basic equation and techniques used for the study would be widely acceptable. Parameters used in the study were chosen in order to produce conservative values. Although the methods "followed the best procedures that we could employ at the time", Hardison undertook additional studies aimed at improving upon the precision of the modeling results.

The additional testing involved actual measurements in the field which were analyzed and compared to the modeling results. For this study, ARI deployed its mobile ambient air quality monitoring laboratory to the site. When Hardison attempted to locate the mobile laboratory at the point determined most likely to experience the highest short-term concentration, it was found that the point was located on the edge of a railroad track. A second suitable location was found which necessitated a second dispersion analysis subsequent to completion of the field study.

This "Sulfur Dioxide Monitoring Study" (Edwin Cooper Exhibit 4) was conducted over a thirty day period during August and September 1974. A total of 2,788 fifteen minute average values of SO₂ concentration were measured during these periods. Other variables monitored included ambient temperature, wind speed, wind standard deviation and wind direction. The fifteen minute average values were correlated with wind direction and those which could have indicated some contribution from Edwin Cooper were analyzed and ordered statistically to produce a cumulative frequency of occurrence plot.

The monitoring study revealed that lower SO₂ concentrations were observed downwind of Edwin Cooper than modeling had predicted. No violations of SO₂ standards were observed during the observation period. Concentrations approaching or slightly exceeding 0.06 ppm were observed during periods when generally southwesterly winds were experienced. A power plant and chemical complex are located southwest of the Edwin Cooper plant. However, the study found that none of these background SO₂ sources are likely to be aligned with the Edwin Cooper flares to produce high short-term concentrations.

Based upon this study and the second dispersion modeling program, Hardison concluded that Edwin Cooper's emissions did not have a significant effect on the air quality of the St. Louis metropolitan area (R. 42). He felt that the 0.006 ppm contribution from Edwin Cooper's flares would be measurable with sensitive monitoring equipment only to a distance of one to two miles from the plant (R. 225). He admitted that the observed frequency of west-southwest winds were lower during the monitoring study than would be expected but he did not feel that this materially affected the over-all study results.

Hardison testified that the combination of studies performed by ARI furnishes a picture of air quality in the area that is more comprehensive and believable than either technique could produce alone. He felt that the comparison of projected and measured air quality levels (Edwin Cooper Exhibit 4, Figure 6) was valid despite the short (30 day) monitoring period.

The acceptability of any air monitoring program, whether it involves monitoring for one month, five months or one year, depends upon seasonal variations in weather and background concentrations which occurred during the monitoring period according to Hardison. A full year's monitoring may still lack seasonal variations thus making the data accurate for only that one year. Hardison attempted to secure monitoring data for the area prior to initiating these studies but was unable to do so. For this reason, ARI used the combination of dispersion modeling and field monitoring. Although the Agency concurred in the methodology of ARI's monitoring program, some hesitation was expressed over the reliability of projections based upon 30 days actual monitoring time (R. 232, 233).

No Agency witnesses presented testimony at either of the two public hearings. Subsequent to the hearings, the Agency submitted its "Written Submission" consisting of six attachments. Edwin Cooper objects to the submission as being improper in substance and form. Attachments A through D consist of documents relating to air quality in Air Quality Control Region 70. Region 70 encompasses the Greater St. Louis area and consists of 4 counties in Missouri and 7 in Illinois. The Edwin Cooper plant is located in Air Quality Control Region 70. The Board finds that Attachments A through D constitute information bearing upon the issue at hand and shall be made a part of this record.

Attachment B is a summary of 1974 SO₂ monitoring data obtained from five locations throughout the Illinois portion of Region 70. Violations of the annual standards occurred at two of the five locations, E. St. Louis and Wood River. E. St. Louis experienced an annual arithmetic mean of 0.031 ppm while Wood River experienced a 0.033 mean value. Short term violations (24 hour and 3 hour standards) occurred only at the Wood River site.

Analysis of Attachment D, a computer print-out of an emission inventory for the Illinois portion of Region 70, shows that Edwin Cooper ranks 13th in quantity of SO₂ emitted in the Illinois portion of Region 70. In St. Clair County, Edwin Cooper emissions constitute 3.25% of the total SO₂ emissions. Edwin Cooper's SO₂ emissions account for 0.34% of the total seven county area SO₂ emissions. Madison County, which includes the Wood River monitoring site, accounts for over 50% of the total SO₂ emissions in the seven county area.

When compared with findings in the ARI studies, these SO₂ emission data strongly support the testimony of Hardison that Edwin Cooper emissions probably do not significantly affect

the air quality in the St. Louis metropolitan area. Since the measurable effect of Edwin Cooper's SO₂ emissions diminish rapidly beyond one mile from the two flares, it is reasonable to conclude that such emissions make no significant contribution to the SO₂ problems in E. St. Louis and even less to the Wood River problem 19 miles distant. Agency review of ARI studies for Edwin Cooper yield the same conclusion (R. 301).

Attachment E to the Agency's "Written Submission" consist of a letter from L. Schlossberg, Executive Vice President of Detrex Chemical Industries Inc. to Board Member Donald Henss, dated June 12, 1975. Detrex is the parent corporation of Elco Corporation, a producer of ZDP and a competitor of Edwin Cooper. Edwin Cooper objects to inclusion of this letter on grounds that it is not a proper "written submission" in accordance with Rule 209 of the Board's Procedural Rules. Additional objections are raised as to relevancy and accuracy of information contained within the letter.

Rule 209 was designed and included in the Board's Procedural Rules as a means of securing expert or technical testimony. It deals with testimony during the course of development of the record and is not intended to foreclose the submission of written material after the last public hearing and prior to the close of the record. Rule 210 clearly provides for inclusion of such material and therefore Attachment E shall be included in the record.

The Dextrex letter (Attachment E) was submitted at the request of the Illinois EPA. While somewhat vague, the letter states that Elco produces ZDP by the batch process on a possibly smaller volume than does Edwin Cooper. Flaring of hydrogen sulfide was practiced until "about 4-5 years ago" at which time a caustic scrubbing system was installed. Attempts by Edwin Cooper to obtain additional information directly from Elco were apparently unsuccessful. Edwin Cooper claims that files of the Cincinnati Air Pollution Control Board reveal virtually no information about its competitor, Elco, except that the scrubbing system was installed in 1973.

Attachment F consists of a one page memorandum from a secretary to the Agency attorney regarding a telephone conversation with Edwin Cooper's attorney. This Attachment also qualifies for inclusion in the record pursuant to Rule 210. Edwin Cooper's objection to Attachments E and F of the Agency's "Written Submission" is denied.

None of the parties in this matter are aware of any other process emission sources in Illinois that will be affected by the proposed amendments (R. 42, 116, 302). Although Edwin Cooper's calculated maximum one hour emission rate is 436.7 lbs., the upper one hour limit proposed is 500 lbs./hr. Donald Coons, Vice President of Edwin Cooper, testified that Edwin Cooper seeks the 500 lbs./hr. limit as a safety factor primarily because of inaccuracies in stack gas testing equipment (R. 118). Hardison testified that 500 lbs./hr. provides "a reasonable amount of lee-way over the theoretical maximum number" (R. 228). He felt that the eight hour emission value of 3500 lbs. would place Edwin Cooper "uncomfortably close" to the calculated maximum emission rate.

If the proposed amendments are not adopted, Edwin Cooper will probably shut down the ZDP and PP production facilities. The testimony indicates that these two products will earn a profit for the company of \$118,000 in 1975. Profits from ZDP and PP averaged \$266,000 per year for 1972 - 1974, but this average was greatly enhanced by an unusually profitable 1974 (See Exhibit 7). The 1974 profits are substantially higher than for years preceeding and following. The 1974 profit is based in part upon factors such as; temporary increase in production to supply needs of a competitor which had experienced an explosion and for inventory buildup by Cooper customers, sale of old low-ccst inventory at current escalating prices.

Donald Coons testified that he had compared the total annual cost for the least expensive of the eight systems (the Rhodia Cataban system) to the annual profits obtained from the ZDP and PP processes. He concluded that it would be uneconomical for Edwin Cooper to install even the least costly control system. Proponent's Manufacturing Manager, Bill Corlew, testified that because of impact on profits, he would not recommend the capital investment for SO₂ control. Rather than install such controls Corlew would recommend that the Edwin Cooper Company forego the production of ZDP and PP. In that event, Cooper would purchase from competitors such amounts of ZDP and PP as the Company required for its packaged goods. Employment for approximately 20 plant workers would be terminated by such a decision. Another 8 to 10 contract employees would also be affected by this decision.

During cross examination of Donald Coons the Agency sought to obtain over-all profit figures of Edwin Cooper beyond that provided in direct testimony. Edwin Cooper vigorously objected to this request by claiming that the figures for ZDP and PP should stand by themselves since they are the only production processes at issue. In addition, public availability of such confidential figures could possibly be detrimental to Edwin Cooper due to the extremely competitive cost structure of the chemical products.

These figures were subsequently prepared and identified in the record as Edwin Cooper Exhibit A. In addition, detailed calculations which had been used in arriving at maximum one-hour and eight-hour emission rates were provided by Edwin Cooper to the Board's staff. Both the profit statements and emission calculations were submitted on condition that Edwin Cooper be allowed to petition for their nondisclosure pursuant to Rule 107 of the Board's Procedural Rules. Edwin Cooper has filed a formal motion for nondisclosure of the profit information.

In response, the Agency states that while it does not oppose the Motion for Nondisclosure, lack of opposition should not imply that the "Agency recommends in favor of such confidential treatment". The Agency believes that a myriad of factors are involved in determining economic reasonableness and that the Board should not foreclose consideration of a "potentially significant factor" by failing to make the total profit figures a part of the record.

Having carefully reviewed the documents for which nondisclosure is sought, the Board is of the opinion that public disclosure of these documents is not required. Cooper concedes that it has sufficient financial standing to finance the installation of controls if economically reasonable in relation to the profitability of the ZDP and PP operations. The record absent these documents provides sufficient economic information about the Edwin Cooper operation in our opinion. In addition, the Board has carefully reviewed the calculation summaries and finds that testimony concerning emission rates was accurately provided in the record. The motion for nondisclosure will be allowed.

At the outset of this proceeding Edwin Cooper stated that it sought to "correct an oversight in the preparation of the emission limitations" which occurred during the R71-23 proceedings. Edwin Cooper claims that Rule 204(f)(1)(A) was designed to control SO₂ emissions from existing sulfuric acid plants. In support of these contentions Edwin Cooper cites the testimony of James Rook of American Cyanamid Company, Donald Weber of Monsanto, Hall of New Jersey Zinc and Robert G. Mowers of the Illinois Petroleum Council regarding economic impact of the Regulation upon sulfuric acid plants.

Indeed it was such testimony of economic impact that caused the Board to adopt a 2,000 ppm limitation instead of the earlier proposed limit of 1500 ppm. As adopted, the regulations exempt from the SO₂ standard all existing petroleum and petrochemical processes designed to remove sulfur compounds from flue gasses. The Board might have exempted smaller operations with their smaller emissions, such as Edwin Cooper, if the R71-23 record had contained information about these operations. Nevertheless, Edwin Cooper is now subject to the standard of Rule 204(f)(1)(A) and, is apparently the only Illinois source of this type so regulated.

Edwin Cooper has prepared substantial documentation showing that control of its emissions is not "necessary to meet the air quality standards". Annual costs for control methods would, for most years, exceed profits from the controlled processes, and this could lead to cessation of these operations (R. 122). It has been shown that SO₂ emissions from the Edwin Cooper flares do not significantly affect the long or short-term air quality in Region 70.

The Board concludes from this record that Rule 204(f) (1) should be amended in the manner proposed by Cooper. The proposed amendment was carefully worked out by the parties to assure that Edwin Cooper does not release environmentally excessive amounts of SO₂. The proposed amendment will be adopted.

This Opinion constitutes the findings of fact and conclusions of law of the Illinois Pollution Control Board.

ORDER

It is the Order of the Pollution Control Board that:

1. The Sulfur Standard and Limitations for Process Emission Sources of the Illinois Air Pollution Control Regulations be amended as follows:

Rule 204(f) Sulfur Standards and Limitations for Process Emission Sources

(1) Sulfur Dioxide Standards and Limitations

(A) Except as further provided by paragraphs (f) (1)(B), (f) (1)(C), (f) (1)(D) and (f) (1)(E) of this Rule 204, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm....


(E) Paragraph (f) (1)(A) of this Rule 204 shall not apply to existing hydrogen sulfide flares at a chemical manufacturing plant provided:

- (i) Said flares are operative on existing batch type processes; and
- (ii) The hydrogen sulfide emissions being flared are not, at the time of adoption of this subpart (E), passed through existing processes designed to remove sulfur compounds from the flue gasses as provided in subparagraph (D) above; and

- (iii) The emission of sulfur dioxide into the atmosphere from said flares does not exceed 500 pounds per hour and 3500 pounds per eight-hour period; and
- (iv) provided, however, that if emission controls for said flares become economically reasonable and technically feasible the owner/operator of such hydrogen sulfide flares shall install such controls.

2. Edwin Cooper Exhibit A (a listing of overall company profits of Edwin Cooper, inc.) shall be designated "not subject to disclosure" and shall be retained in the records of the Illinois Pollution Control Board under the provisions of Procedural Rule 107.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order was adopted the 4th day of September 1975 by a vote of 4-0.


Christan L. Moffett, Clerk
Illinois Pollution Control Board