

ILLINOIS POLLUTION CONTROL BOARD
February 7, 1991

OLIN CORPORATION)	
(JOLIET PLANT),)	
)	
Petitioner,)	
)	
v.)	PCB 89-72
)	(Variance)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

MS. BARBARA B. GUIBORD and MR. MARK R. SARGIS of WINSTON & STRAWN APPEARED ON BEHALF OF THE PETITIONER.

MR. JAMES J. O'DONNELL, ASSISTANT COUNSEL, APPEARED ON BEHALF OF THE RESPONDENT.

OPINION AND ORDER OF THE BOARD (by B. Forcade):

This matter comes before the Board on a third amended petition filed by Olin Corporation, Joliet Plant, (hereinafter "Olin") on November 7, 1990. Olin seeks a variance until March 31, 1993 from the Board's regulations governing the emission of particulate matter, found at 35 Ill. Adm. Code 212.321, as this applies to the emissions from the A and B building scrubbers at its Joliet facility.

Procedural History

Olin initially filed its petition in this matter on April 21, 1989. Continuing discussions with the Agency and revisions in the compliance plan have resulted in Olin's filing a first amended petition on June 21, 1989; a second amended petition on October 4, 1989, and the present third amended petition on November 7, 1990.

Three letters of objection were filed with the Board on May 11, May 24, and June 14 of 1989. The letter of May 11, 1989 raised concerns about a pond and gypsum mound, neither of which is properly considered in this petition for variance from air regulations. The other letters raised concerns about air quality, which the Board finds relevant to this proceeding.

A number of hearings were scheduled and cancelled in this proceeding, requiring repeated expenditures from this Board's limited budget. Hearing was set for September 6, 1989 and then cancelled; rescheduled to October 6, 1989 and cancelled; rescheduled to January 24, 1990 and cancelled; rescheduled to March 14, 1990 and cancelled; rescheduled to June 25, 1990 and cancelled; rescheduled to September 6, 1990 and cancelled; rescheduled to November 12, 1990 and finally held on that date. The Board views this conduct as detrimental to the Board's efficient operation and to the fair opportunity of other petitioners to have their cases heard by the Board. The Board cautions all petitioners before the Board that this conduct cannot be tolerated in the future in fairness to all.

Olin filed an application for non-disclosure of certain information on November 7, 1990, along with a motion for expedited decision. On November 8, 1990 the Board granted the Motion for expedited decision. By Order of November 29, 1990, the Board agreed to proceed in accordance with 35 Ill. Adm. Code Part 120 Subpart C and Board Resolution 86-2, in connection with the revised application filed by Olin on November 21, 1990. Olin may petition the Board for the return of confidential materials after the time for reconsideration or appeal has passed without any such filing.

On November 28, 1990, the Illinois Environmental Protection Agency ("Agency") filed its Recommendation ("Ag. Rec.") in favor of granting a variance with a shorter term than requested by Olin and with various conditions. Also on November 28, 1990, Olin filed a Waiver of Response to Agency Recommendation.

Background

Olin's plant is located at the junction of Patterson and Laraway Roads in Joliet Township, Will County, Illinois. The plant is a significant employment source, with a work force in the range of 300 employees in 1989 and 230 employees as of October 1, 1990. The 1989 payroll was approximately \$10.5 million. Olin also asserts that "secondary" employment as a result of the plant's presence would at least equal the plant's payroll. Capital expenditures have averaged \$2 - 3 million in recent years. In addition to producing sodium fluoride for use in fluoridation of municipal water supplies, the plant is a major producer of industrial sodium phosphates. These may be further categorized as follows:

- 1) Orthophosphates: Monosodium, trisodium, and trisodium chlorinated phosphates.

Uses: cattle and poultry feed supplements, water treatment, cleaning agents, and other uses.

- 2) Condensed phosphates: sodium tripolyphosphate ("STPP"), tetrasodium pyro and sodium acid phosphates and sodium hexametaphosphates.

Uses: paper manufacturing, laundry and dishwater detergents, water softening, and other uses.

Olin's STPP production, which accounts for approximately 15% of the total U.S. production of STPP, causes the particulate emissions for which Olin seeks a variance. The emissions in question are created by the high temperature kilns at Buildings A and B at the Joliet plant. Pet. at pp. 2-3.

Olin summarized the process of producing sodium phosphates as involving the reaction of phosphoric acid with sodium hydroxide or soda ash. The combined chemicals are filtered, evaporated, and processed. Traditionally, only standard grade (green) phosphoric acid was used. In 1990, however, technical grade (purified) acid was introduced, the use of which reportedly will reduce plant-wide particulate emissions.

STPP is produced by the thermal condensation of a sodium orthophosphate mixture. It is created by two different processes at the Joliet facility. At each of Buildings A and B, two high temperature kilns produce STPP in one step, from liquors to final product. At Building C, STPP is produced by a two step process, first spray drying and then, condensation. Pet. at p.3.

The mixing, storage, heating, and evaporation processes described by Olin proceed to the point where furnace exit gases and fine solids pass through separation equipment and then to a separate scrubber for each of the 4 kiln systems. Each system may be operated independently of one another. Pet. at p.4.

The C kiln, which began operations in 1970, does not create excessive emissions. The A and B kilns, which date back to 1948 to 1955, and which had pollution control equipment installed on them in 1979, do result in excessive particulate emissions. Pet. at p.5.

Operating permits for the A and B Buildings were issued in July and August of 1987, and will expire on July 20, 1992. Pet., Exhibit A; Ag. Rec. at p.2.

The Agency provided the following table for 1985 - 1988, showing consistent non-compliance with Section 212.321:

<u>Year</u>	<u>Tripoly A Building</u>		<u>Tripoly B Building</u>	
	<u>Actual Emissions (T/Y)</u>	<u>Allowable Emissions (T/Y)</u>	<u>Actual Emissions (T/Y)</u>	<u>Allowable Emissions (T/Y)</u>
1985	30.11	24.23	39.71	23.50
1986	58.45	19.53	47.48	24.15
1987	32.46	22.75	57.60	27.25
1988	30.69	23.21	58.52	29.40

Ag. Rec. at p.2; See also Pet., Exhibit C.

The Agency noted that the A-North kiln has achieved marginal compliance as a result of engineering modifications. The Agency also stated that for the entire plant particulate emissions were reduced from 961 tons in 1985 to 512 tons in 1988, with the most notable decrease occurring in 1986, as a result of the elimination of certain production lines. Ag. Rec. at p.2. See also Pet., Exhibit B. Overall emissions reductions were also brought to the Board's attention by Olin. Pet. at p. 6 and Pet., Exhibit B. Each source, of course, must achieve compliance individually to satisfy the regulatory requirements.

At the Board's hearing held on November 12, 1990, the Agency and Olin appeared to be in substantial agreement as to the facts in this case. The Agency conditionally recommended that the Board grant a variance to Olin.

Three objectors also testified at hearing. The first, representing the Will County Environmental Network, expressed concern about residue allegedly being dumped near a pond on the site. The second objected to the lengthy delay between the initial filing and the hearing date and the proposed final date for compliance, and requested that compliance be achieved expeditiously. The third objected to the grant of the variance, in general, arguing that individuals are made to suffer from air pollution on an ongoing basis from Olin's emissions from other equipment for which Olin may already have obtained variance.

Statutory and Case Law Framework

The Board's statutory authority for granting temporary relief in the form of a variance is found in Section 35 of the Act. Section 35(a) provides, in pertinent part:

The Board may grant individual variances beyond the limitations prescribed in this act, whenever it is found, upon presentation of adequate proof, that compliance with any rule or regulation, requirement

or order of the Board would impose an arbitrary or unreasonable hardship. However, the Board is not required to find that an arbitrary or unreasonable hardship exists exclusively because the regulatory standard is under review and the costs of compliance are substantial and certain.

Section 35(a) of the Act (emphasis added).

Section 37(a) places the burden of proof on the petitioner. The petitioner must show that the alleged hardship outweighs the public interest in attaining compliance with regulations designed to preserve the environment and protect the public. Willowbrook Motel Partnership v. Pollution Control Board, 135 Ill. App. 3d 343, 481 N.E.2d 1032, 1037 (1st Dist. 1985).

Since a variance is a temporary reprieve from compliance with the Act and the Board's regulations, compliance is to be sought regardless of the hardship imposed on a individual polluter. Monsanto Co. v. IPCB, 67 Ill. 2d 276, 376 N.E.2d 684 (1977). This generally means that the petitioner must commit to a plan reasonably calculated to achieve compliance within the term of the variance. The Board's regulations specify that a detailed compliance plan must be submitted pursuant to 35 Ill. Adm. Code 104.121(f). Olin's compliance plan is found at Exhibit I of the petition.

The time required to construct facilities and achieve compliance does not in itself create arbitrary or unreasonable hardship associated with immediate compliance. The mere existence of violations, which cannot be cured immediately, does not prove the hardship of immediate compliance for which a variance should be granted. This principle was stated early in the Board's history, as follows:

The District alleges that the proposed time schedule is "reasonable". If the regulation had been adopted in 1971, we would agree; two years is an acceptable timetable for design and construction of tertiary facilities of this size. But the regulation was adopted in 1967, and no reasons are given for the District's inaction for nearly four years. One cannot qualify for a variance simply by ignoring the timetable and starting late. While compliance within the remaining time may be impossible, and hardship suffered as a result is, so far as is alleged, due to the District's own inaction. To allow a variance on the basis of the present allegation would establish the preposterous proposition that the very existence of a violation is a ground for excusing it.

Decatur Sanitary District v. IEPA, 1 PCB 359, 360 (1971). (emphasis added.)

Similarly, in other decisions it has been articulated that the petitioner's hardship must not be self-imposed by the petitioner's inactivity or own decisionmaking. EPA v. Lindgren Foundry Co., 1 PCB 11 (1970); Ekco Glaco Corporation v. IEPA and IPCB, 542 N.E. 2d 147 (1st Dist. 1989); Willowbrook Motel, 481 N.E.2d at 1036. In PCB 87-41, Ekco Glaco v. IEPA, the Board found that "Ekco Glaco's problems arise from the delay caused by decisions it has made in attempting to secure compliance and its failure to commit to a particular compliance option. The Board cannot find that those problems constitute an arbitrary or unreasonable hardship." Ekco Glaco, PCB 87-41 at 4, aff'd in Ekco Glaco Corp. v. IEPA and IPCB, 542 N.E. 2d 147 (1st Dist. 1989).

Thus, the issue before the Board is whether or not Olin has demonstrated that immediate compliance imposes an arbitrary or unreasonable hardship, which is not self-imposed, and which outweighs the related adverse environmental impact. Here, the relevant environmental impact and "immediacy" of compliance must be measured from the date at which compliance was required until the date of expected compliance. The effective date of 35 Ill. Adm. Code 212.321 was September 28, 1979; Olin's equipment became operational in 1980; and Olin proposes to achieve compliance by March 31, 1993.

Compliance Efforts and Plan

Olin notes that it has met with three different consultants and met regularly with the Agency to address its emissions problem. Pet. at p.5, see also engineering report at Pet., Exhibit G. Through engineering work, A Building emissions have been reduced and the A-North kiln is in marginal compliance. Pet. at pp. 6, 7 and Ag. Rec. at p. 2. Plant-wide emissions have been reduced since 1980 due to equipment, process, and raw material modifications and the elimination of certain production lines in 1986. Pet. at p.6, Ag. Rec. at p.2.

The A and B Building wet scrubbers and other control technology and a water treatment facility were installed at a cost of \$22 million. Pet. at p.7. Olin has also maintained the scrubbers since 1987 pursuant to an optimization and maintenance schedule approved by the Agency. Other efforts include investigating a pilot Venturi scrubber testing program; converting approximately two-thirds of its acid process to purified acid, conducting an engineering study on the A Building scrubbers involving numerous stack and inlet gas tests and other individual tests. Pet. at pp. 7-10. See also Pet., Exhibits E and F.

Olin also commits to install new scrubber equipment on B-South at a cost of approximately \$500,000. Pet. at p.12. Olin expects that modifications to B-North and installation of an additional scrubber and a mist eliminator on B-South will be completed and tested by the first half of 1991. Olin proposes to then return to work at A-Building.

Olin's Compliance Plan, at Exhibit I of the Petition, specified the following continuing efforts:

1. Olin will continue the scrubber modifications, optimizations and maintenance schedule during the requested variance period as outlined in Exhibit D. This extensive schedule will be implemented for the Tripoly process scrubbers at both "A" and "B" buildings to prevent further loss of efficiency of the scrubbers.
2. ...on the A-North scrubber...
 - a. September 1 - November 15, 1990 Conduct engineering matrix tests while manufacturing STPP.
 - b. November 15, 1990 - February 1991 Evaluate engineering modifications, if necessary.
3. ...at B-North scrubber...
 - a. November 1 - December 31, 1990 Implement engineering modifications to scrubber based on results of matrix testing at A-North unit.
 - b. January 1 - April 1, 1991 Perform engineering matrix tests for all products.
 - c. April 1 - July 1991 Evaluate engineering modifications, if necessary.
4. Additional scrubber (BECO Smoke Ring Contactor and Mist Master) ... at B-South by December 31, 1990...
 - a. November 1 - December 31, 1990 Install BECO scrubber system.
 - b. January 1 - June 30, 1991 Conduct matrix tests and optimize unit performance.
 - c. July 1 - September 1991 Evaluate any further engineering modifications, if necessary.
5. A-South modifications...

- a. September 1, 1991 - December 1, 1991
Evaluate the impact of engineering modifications at A-North and B North as well as performance of additional scrubber at B-South.
 - b. January 1, 1992 - July 1, 1992 Implement the option that yields best performance.
 - c. July 1, 1992 - September 1, 1992 Conduct matrix tests and optimize unit performance.
 - d. September 1, 1992 - December 31, 1992
Evaluate any further engineering modifications if necessary.
6. Assuming significant modifications are required...
- a. January 1, 1992 - April 1, 1992 Engineering design and purchasing quotations will be performed.
 - b. April 1 - July 31, 1992 Necessary equipment and controls will be procured and delivered.
 - c. August 1 - November 30, 1992 Construction and installation will be performed.
 - d. December, 1992 - January 31, 1993 System start-up and testing will be accomplished.
 - e. February 1, 1993 - March 31, 1993 Operational testing and minor modifications, if required will be conducted.
7. Procurement and delivery of equipment is anticipated to take at last 4 months.
8. Installation required to take at least 4 months.
9. Time: Based on Chemicals group Engineering experience.

Pet., Exhibit I

Agency Recommendation

Based on the results of air modeling performed by Olin at the Agency's request, the Agency concluded that the variance should not cause or contribute to a violation of the NAAQS. The Agency states that the variance will require a revision to the Illinois State Implementation Plan ("SIP"), pursuant to Section 110(a) of the Clean Air Act and 40 CFR Part 51, and that relief may be granted consistent with federal law. The Agency recommends that the Board grant the requested relief with some

modifications and with a significantly shorter term. Specifically, the Agency suggested that paragraphs 5 and 6 of the compliance plan proposed by Olin should be modified to substitute the following:

Paragraph 5

- a. April 1, 1991 - July 1, 1991...
- b. July 1, 1991 - January 1, 1992...
- c. January 1, 1992 - March 1, 1992...
- d. Deleted

Paragraph 6a-3 -- deleted *

The Agency's Recommendation presents this position with respect to appropriate performance deadlines in the following paragraphs:

- 29. Based upon the modifications to be performed on B-North and the installation of an additional scrubber for B-South, Olin should be in compliance by December 31, 1990 for B-North and B-South.
- 30. Waiting until January 1, 1992 to start work on A-South is unnecessary. Olin should be able to evaluate the modifications to the A-North and B-South scrubbers and the additional scrubber for the B-South kiln by July 1, 1991.
- 31. Implementation of all modifications and/or an additional scrubber for the B-South kiln should then be completed by December 31, 1991.
- 32. Olin should then be able to conduct matrix tests and optimize unit performance by March 1, 1992.

Ag. Rec. at p.6, para. 29-32.

*The Board reads "6a-3" as "6a-e", assuming that this is a typographical error, since there is no item 3 in paragraph 6, and the dates in 6b - 6e are after March 1, 1992.

Hardship

The hardship which Olin seeks to avoid is principally the major expenditures associated with new replacement scrubber equipment for all sources - \$8 - \$10 million. An alternative of converting coal-fired boilers to natural gas feed would cost approximately \$5 million and Olin asserts that this is unreasonable given Olin's financial condition. Olin also believes that the added costs of raising stack heights is an environmentally less desirable alternative than pursuing the emissions reductions which could be achieved under Olin's proposed compliance plan. However, Olin considers raising stack heights as a possible plan of last resort. Pet. at pp. 16-18.

Olin argues that the "Joliet plant currently is unprofitable." Pet. at p.19. Olin also submitted an economic report (which, in part, was characterized by Olin as confidential and maintained accordingly by the Board) in support of its economic arguments. As the information deemed confidential by Olin is not critical to the Board's decision today that limited material may be returned to Olin, at Olin's request, after the time for reconsideration or appeal has passed without any such filing. Olin points out that the market for STPP has declined and is projected to decline further. The combined effect is that Olin has a limited financial ability to achieve immediate compliance. Olin does not state that the facility will close. However, Olin does state that "(i)n light of the importance of the plant to its employees, the surrounding area, and to Olin and its customers, denial of the variance would impose a severe hardship on Olin as well as to the community". Pet. at p.20.

The financial burden, which Olin does agree to undertake promptly, involves improvements to the B-South kiln of approximately \$500,000. The Agency also acknowledged that "(b)etween 1986 and the present, Olin has spent approximately \$2,900,000 in total costs to address emissions problems at the tripoly stacks, including optimization and maintenance, internal costs, stack testing, and outside consultant and legal fees. Ag. Rec. at p.4. When considered in this light, the Board finds that additional major expenses in the \$8 - 10 million range to achieve immediate compliance appear to represent an unreasonable hardship in this limited factual setting.

Environmental Impact

The Joliet plant is located in Will County, Illinois, which has been designated as a Group II PM₁₀ area, on the basis of one possible but unconfirmed exceedance of the ambient air quality standard. Air quality standards appear to be met at the nearest monitoring locations. Pet. at pp. 14-16. Based on air modeling, performed by Olin at the Agency's request, granting the variance should not cause or contribute to a violation of the NAAQS. Pet. at pp. 14-16.

The modeling showed that the current operations do not have a significant impact on air quality at Olin's property line, and the single area of significant impact was to the northwest, over the Des Plaines River, not near homes or other populated areas. Pet. at p.16, Ag. Rec. at p.3.

Olin asserts that "the granting of this variance will not have an adverse impact on the environment. Pet. at p.14. The Agency addresses the issue by stating that Olin's emissions may produce in one area a "significant" impact. Ag. Rec. at p.3. Both Olin and the Agency, however, provide support for the position that the environmental impact should be considered minimal.

Consistency with Federal Law

Both the Agency and Olin have stated that relief can be granted consistent with federal law. The variance will require a revision in the Illinois SIP, pursuant to Section 110(a) of the Clean Air Act and 40 CFR Part 51, but the relief will not cause violations of the Clean Air Act or federal regulations.

Conclusion

The Board finds that Olin has presented adequate proof that some level of relief in the form of a variance should be granted. The hardship of immediate compliance appears arbitrary or unreasonable when compared to the level of environmental impact from the particulate emissions. However, the Board also finds that, to a degree, Olin's hardship in achieving compliance is self-imposed. The history of non-compliance and the lengthy study and decisionmaking process engaged in by Olin on equipment operating since 1980 does not support the grant of relief until 1993.

The Board finds that the Agency has put forth a timetable and conditions which find more support in the record. The Board also agrees with the Agency's calling for a progress report indicating if compliance is expected by March 1, 1992. The Board finds that an earlier report, due October 1, 1991, will be preferable to waiting until December 1, 1991 to inform the Agency of the progress and to reformulate a plan, if necessary, to achieve compliance by March 1, 1992. The delays in obtaining and installing equipment suggest that Olin must draw a conclusion as to the effectiveness of its efforts earlier than December 1, 1991. Olin should diligently pursue installation of all equipment necessary to achieve compliance. Olin's petition and the Agency's recommendation clearly show that significant steps were already to have been taken by Olin by December 31, 1990. The variance will expire on March 1, 1992, after which time Olin will not be protected from an enforcement action. This date should also further the efficiency of the permitting process since Olin's permits expire on July 20, 1992.

This Opinion constitutes the Board's findings of fact and conclusions of law in this matter.

ORDER

The Board hereby grants to Olin Corporation, Joliet Plant, a variance from 35 Ill. Adm. Code 212.321 as applied to the scrubbers in A and B Buildings, Joliet Plant, Joliet, Illinois, subject to the following terms and conditions:

1. The variance period shall extend from January 24, 1991 until March 1, 1992.
2. Olin shall complete all testing and minor modifications on the A-North scrubber as follows:
 - A) Not later than February 28, 1991, Olin shall complete all engineering matrix tests and the evaluation of any modifications, if necessary.
3. Olin shall complete modifications similar to the A-North scrubber modifications at the B-North scrubber, as follows:
 - A) Not later than April 1, 1991, Olin shall complete modifications to the B-North scrubber, based on the results of matrix testing at A-North unit, and Perform engineering matrix tests for all products.
 - B) Not later than July 31, 1991, Olin shall complete the evaluation of any engineering modifications, if necessary.
4. Olin shall install an additional scrubber (BECO Smoke Ring Contactor and Mist Master) at B-South and implement the optimization schedule as follows:
 - A) Not later than January 31, 1991, Olin shall install the BECO scrubber system.
 - B) Not later than June 30, 1991, Olin shall complete matrix tests and optimize unit performance.
 - C) Not later than September 1991, Olin shall evaluate any further engineering modifications, if necessary.
5. Olin shall complete modifications to the A-South scrubber, as follows:
 - A) Not later than July 1, 1991, Olin shall complete its evaluation of the impact of engineering modifications at A-North and B-North, as well as the performance of the

additional scrubber at B-South.

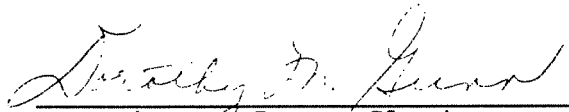
- B) Not later than January 1, 1992, Olin shall complete engineering modifications to the A-South scrubber, based on the evaluations made pursuant to paragraph E(1) herein.
 - C) Not later than March 1, 1992 Olin shall complete matrix tests and optimize unit performance and complete any further engineering modifications, if necessary.
6. Monthly progress reports are to be made to the Agency. The reports should be submitted to:
- Regional Manager
Division of Air Pollution Control
Illinois Environmental Protection
Agency
1701 First Avenue
Maywood, Illinois 60153
- 7. Olin shall evaluate its progress and submit a report by October 1, 1991 indicating whether compliance is anticipated by the end of the variance period. If compliance is not anticipated, the report shall include a proposal for an alternative method to achieve compliance with a time schedule for its implementation so that compliance is achieved by March 1, 1992.
 - 8. Olin shall maintain the scrubbers consistent with its optimization and maintenance schedule which was attached as Exhibit D to the Third Amended Petition.
 - 9. Olin shall test to insure compliance, prior to expiration of the variance period. Notification is to be given to the Agency no later than fifteen days prior to compliance testing.
 - 10. Olin shall comply with all provisions of any construction permits issued by the Agency for additional scrubbers for the tripoly A and B buildings.
 - 11. That within forty-five days of the grant of the variance, Petitioner execute and forward to Renee A. Stadel, Division of Legal Counsel, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois, 62794-9276, a Certificate of Acceptance and Agreement to be bound by all terms and conditions of the granted variance. This grant of variance

shall be null and void if Petitioner fails to execute and deliver its certification in accordance with this paragraph.

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1041, provides for appeal of final Orders of the Board within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements.

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 7th day of February, 1991, by a vote of 6-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board