

ILLINOIS POLLUTION CONTROL BOARD
December 16, 1993

GENERAL CHEMICAL CORPORATION,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 93-178
	)	(Variance)
ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
	)	
Respondent.	)	

OPINION AND ORDER OF THE BOARD (by M. Nardulli):

This matter is before the Board on General Chemical Corporation's (General Chemical) amended petition for extension of variance filed on October 27, 1993. General Chemical seeks an extension of the variance from 35 Ill. Adm. Code 212.322(a) (Existing Process Sources) granted in PCB 92-217. The variance granted in PCB 92-217 expired on December 1, 1993. General Chemical seeks to extend the variance until February 1, 1994.¹ Also on October 27, 1993, General Chemical requested the incorporation of the entire record and the opinion and order in PCB 92-217. On November 4, 1993, the Board granted petitioner's request to incorporate the record from PCB 92-217 and held the matter for Agency recommendation. On December 2, 1993, the Agency filed a motion to file the recommendation instanter. The Agency recommends that the Board grant the variance subject to conditions. On December 8, 1993, General Chemical filed a response to the motion to file instanter and to the Agency's recommendation. General Chemical raises no objections to either the motion to file instanter or to the Agency's recommendation. The Agency's motion to file the recommendation instanter is hereby granted.

The Agency notified Representative Wyvetter Younge, State Senator Kenneth Hall, the St. Clair County State's Attorney and the Chairperson of the St. Clair County Board of the instant petition for extension of variance, as required by Section 37(a) of the Environmental Protection Act (415 ILCS 5/1 et. seq. (1992)). In addition, the Agency placed legal notice in a newspaper of general circulation in the area of the plant. The Agency reports that no citizen objections, complaints or comments

¹ We note that General Chemical has not sought retroactive application of the extension of variance to December 1, 1993, the date of expiration of the original variance.

have been received thus far. (Ag. Rec. at 3.)² Hearing in this matter was waived and none was held.³

BACKGROUND

General Chemical owns and operates a manufacturing facility located in Fairmont City, St. Clair County, Illinois. The closest residential area is approximately 1,000 feet from the plant. (Ag. Rec. at 2.) General Chemical employs twenty-six people at the Plant, including four salaried employees, twenty-one hourly employees and two part-time secretaries. The yearly gross payroll is approximately \$633,204.00. (Ag. Rec. at 6.)

General Chemical's plant is the only domestic producer of sodium aluminum sulfate (SAS), a food grade product used in the manufacture of baking powder. SAS is produced by mixing aluminum sulfate, sodium sulfate and small amounts of sulfuric acid and sodium hydrosulfide. The materials are then mixed with water in a mix tank. From the mix tank the mixture is pumped into a rotary kiln roaster. The roaster reduces the excess liquid and the rotary action produces spherically shaped pieces of solid SAS. The roaster emits particulate matter (PM) and particulate matter of 10 microns or smaller (PM10) in this process. Based upon the process rates and operating hours for General Chemical and the formulae and parameter values from Section 212.322(b) and (c), the Agency has derived a permit limitation of 8.16 pounds per hour of particulate matter. (PCB 92-217 at 2.) General Chemical's permit to operate the roaster and scrubber expired on December 1, 1993. (Ag. Rec at 2.)

The plant is located in a moderate nonattainment area for ozone and is an attainment area for PM10 as determined pursuant to the Clean Air Act, (42 U.S.C. §7401 et. seq. (1990)) (CAA). (Ag. Rec. at 2.)

The Board notes that General Chemical has not stated the specific level of emissions it seeks to be allowed to emit pursuant to this variance extension request. However, based on discussions with General Chemical's counsel and technical

² The amended petition will be cited as "Pet. at ____.", and the Agency recommendation will be cited as "Ag. Rec. at ____."

³ Under the Clean Air Act (42 U.S.C. 7501 et. seq.) a State Implementation Plan (SIP) submittal, subject to reasonable notice and comment is required for any variance from the applicable emissions in an non-attainment area. General Chemical is located in an attainment area and a SIP submittal is not required. Therefore, a hearing is not required for this variance extension. (See General Chemical Corp. v. IEPA (February 4, 1993), PCB 92-217.)

personnel, the Agency believes that it was General Chemical's intention to request the same emissions limit as was allowed in PCB 92-217. The allowable emission level requested in PCB 92-217 was 40 lb/hr of PM. The Agency further believes that General Chemical intended to request the same process weight rate and operating hours as permitted in PCB 92-217. (Ag. Rec. at 3.)

STATUTORY BACKGROUND

Section 36(b) of the Act allows the Board to grant an extension of variance where satisfactory progress has been demonstrated. Section 36(b) states:

Section 36 Variances

- b. Except as provided by Section 38 of this Act, any variance granted pursuant to the provisions of this Section shall be granted for such period of time, not exceeding five years, as shall be specified by the Board at the time of the grant of such variance, and upon the condition that the person who receives such variance shall make such periodic progress reports as the Board shall specify. Such variance may be extended from year to year by affirmative action of the Board, but only if satisfactory progress has been shown.

(emphasis added)

A petition for an extension of a variance is made pursuant to 35 Ill. Adm. Code 104.123. 35 Ill. Adm. Code 104.123 states:

Section 104.123 Extension of Prior Variance

- a) A petition to extend a prior variance granted by the Board shall be commenced by filing a petition for variance with the Agency and the Board in accordance with the requirements of Sections 104.120 and 104.121. To the extent that the information required by Sections 104.120 (Petition for Variance) and 104.121 (Contents of Variance Petition) has been included in the prior petition for variance for which extension is sought, a resubmission of that information shall not be required provided that the petition shall request the incorporation of the record, opinion and order in the prior proceeding into the new petition.
- b) A petition to extend a prior variance shall be subject to all of the requirement of this Part except as provided in subsection (a).

General Chemical seeks an extension of its variance from 35 Ill. Adm. Code 212.322(a). 35 Ill. Adm. Code 212.322(a) states:

Section 212.322 Existing Process Sources

- a) Except as provided in this Part, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any existing process source which, either alone or in combination with the emission of particulate matter from other similar new or existing process emission sources at a plant or premises, exceeds the allowable emission rates specified in subsection (c) and Illustration C.

In determining whether any variance is to be granted, the Act requires the Board to determine whether a petitioner has presented adequate proof that immediate compliance with the Board regulations at issue would impose an arbitrary or unreasonable hardship (415 ILCS 5/35(a) (1992)). Furthermore, the burden is upon the petitioner to show that its claimed hardship outweighs the public interest in attaining compliance with regulations designed to protect the public (Willowbrook Motel v. Pollution Control Board (1977), 135 Ill.App.3d 343, 481 N.E.2d 1032). Only with such showing can the claimed hardship rise to the level of arbitrary or unreasonable hardship.

A further feature of a variance is that it is, by its nature, a temporary reprieve from compliance with the Board's regulations (Monsanto Co. v. IPCB (1977), 67 Ill.2d 276, 367 N.E.2d 684), and compliance is to be sought regardless of the hardship which the task of eventual compliance presents an individual polluter (Id.). Accordingly, except in certain special circumstances, a variance petitioner is required, as a condition to grant of variance, to commit to a plan which is reasonably calculated to achieve compliance within the term of the variance.

The Board may grant an extension of variance where satisfactory progress has been demonstrated. (Ekco Glaco v. IPCB (1989), 186 Ill.App.3d 141, 542 N.E.2d 147.) In addition, it has been past Board practice to grant an extension of an expired variance where satisfactory progress has been demonstrated. (See, Scott Air Force Base v. IEPA (May 10, 1990) PCB 88-69, 111 PCB 09 (extension granted after expiration of original variance upon the showing of satisfactory progress and where the duration of the extension was unusually short); Rowe Foundry v. IEPA (February 23, 1989) PCB 88-21, 96 PCB 147 (extension granted after expiration of original variance upon showing of satisfactory progress); City of Farmington v. IEPA (February 20, 1985) PCB 84-166, ___ PCB ___ (extension of expired variance granted where lack of compliance was beyond the control of petitioner and where there were no reasonable alternatives); Midwest Solvents v. IEPA (April 5, 1984) PCB 84-5, ___ PCB 371 (extension of expired provisional variance granted where diligent progress was demonstrated and adverse weather conditions

interfered with completion of work project).)

DISCUSSION

Section 212.322(a) contains limitations on emissions of PM that exceed the allowable emission rates for existing process sources specified in Section 212.322(c). These limitations vary depending on the process weight rate. The Agency reports that General Chemical's permitted process rate weight is 2.8 tons per hour, with a limit of 6,384 operating hours per year, or 8.17 allowable pounds per hour (lb/hr.) of PM. (Ag. Rec. at 3.)

General Chemical reports that in August 1993, following installation of the fabric filter dust collector on the roaster, stack tests demonstrated compliance with the PM limits of Section 212.322(a). However, on September 20, 1993, the emissions from the stack had visibly increased and operations at the plant were terminated immediately. Upon inspection, General Chemical determined that the tensile structure of the bags had deteriorated markedly. Although General Chemical was aware that the bags would wear out eventually, the actual bag failure was considered premature. (Pet. at 2.) Petitioner presented a thorough analysis of alternative compliance options to the Agency at the meeting held on September 23, 1993. (Pet. at 3.; Ag. Rec. at 4.) Petitioner intends to perform stack tests and report to the Agency on a bi-weekly basis. (Pet. at 3, 4.)

ENVIRONMENTAL IMPACT

The Agency believes the requested extension is not likely to result in any serious environmental or public health effects. Moreover, the Agency believes in order to make the necessary modifications to the plant, including installing of different bags on the fabric filter dust collector, the petition should be granted. (Ag. Rec. at 5.)

HARDSHIP

The Agency has characterized General Chemical as "extremely diligent" in its attempt to bring the plant into compliance with the provisions of Section 212.322(a). The Agency believes that if General Chemical is not permitted to continue to produce SAS at the plant during the very short additional time requested to make the necessary modifications, the result could be a permanent closure of the SAS process at the Plant and resulting economic hardship to the area. (Ag. Rec. at 6.)

COMPLIANCE PLAN

General Chemical has not submitted a formal compliance plan to the Board, but has presented a proposed compliance plan to the Agency. The proposed plan includes the installation of Huyglass

bags. The Agency notes that the Huyglass bags are considerably more expensive than the standard fiberglass bags initially used by General Chemical. The Agency believes the addition of the Huyglass bags to the fabric filter dust collector will result in General Chemical achieving compliance with the emissions limitations of Section 212.322(a). (Ag. Rec. at 6.)

COMPLIANCE WITH FEDERAL LAW

In accordance with the provisions of Section 35 of the Act, the Board may grant variances only if they are consistent with the provisions of the CAA. The Agency believes that because the plant is not located in a PM10 nonattainment area, any variance from the standard of Section 212.322(a) will not be subject to USEPA approval. (Ag. Rec. at 5.)

CONCLUSION

Pursuant to Section 36(b) of the Act, the Board may grant an extension of variance where satisfactory progress has been demonstrated. In addition, the Board may grant an extension of an expired variance upon the demonstration of satisfactory progress. Here, the record indicates that General Chemical has been very diligent in its efforts to comply with the provisions of Section 212.322(a) and the provisions of its initial variance. In August, petitioner performed stack tests which demonstrated compliance with the emission standards. Subsequently petitioner experienced an unexpected technological failure. Thereafter, General Chemical initiated several meetings with Agency personnel, conducted an extensive evaluation of alternative compliance options, retained engineering consultants and developed and implemented compliance procedures. Both the Agency and petitioner believe the proposed changes will bring the plant into compliance in an expeditious manner.

The record indicates that no serious environmental or public health effects that will result, or have resulted, from General Chemical's out-of-compliance status. Furthermore, the Board concludes that General Chemical faces a substantial hardship if variance extension is not granted.

The Board finds that General Chemical has presented adequate proof of satisfactory progress towards compliance. Accordingly, the Board hereby grants General Chemical an extension of variance subject to the conditions stated below.

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

ORDER

1. Petitioner, General Chemical Corporation, is hereby granted

variance from 35 Ill. Adm. Code 212.322(a) as it relates to particle emissions from its plant located in Fairmont City, Illinois, subject to the following conditions.

- A. General Chemical Corporation shall install Huyglass bags or other equivalent bags on the fabric filter dust collector on the SAS roaster on or before January 1, 1994.
- B. General Chemical Corporation shall submit biweekly progress reports to the Agency detailing all progress made towards installing and testing the Huyglass bags or other appropriate bags on the fabric filter dust collector, addressed as follows:

State of Illinois/EPA
Regional Manager/Bureau of Air
2009 Mall Street
Collinsville, Illinois 62234
Attention: John Justice

- 2. General Chemical Corporation shall otherwise operate the Plant during the term of the variance under the permit conditions specified in its operating permit, and shall:
 - A. On or before January 15, 1994, measure the PM and SO₂ emissions of the SAS Evaporation and Roasting Process by an approved testing service during conditions that are representative of maximum emissions, and submit a final report of the results of the tests to the Agency on or before February 1, 1994.
 - B. Use the following methods and procedures for testing of emission, unless another method is approved by the Agency (Refer to 40 CFR 60, Appendix A for USEPA test methods):

Location of Sample Points:	USEPA Method 1
Gas Flow and Velocity:	USEPA Method 2
Particulate Matter:	USEPA Method 5
Sulfur Dioxide:	35 Ill. Adm. Code
	214.101(a) (USEPA Method 6)

As part of the measurement of PM emissions, General Chemical shall measure and report both the inorganic and organic considerable particulate matter in the USEPA Method 5 impinger catch.

- C. During the above-referenced tests, determine the following information:

- i) Process liquor flow rate, concentration and process weight rate;
- ii) Process operating temperatures; and
- iii) Pressure drop across the baghouse.

Process liquor feed rate, concentration, process weight rate, and process operating temperatures shall be determined based on the SAS operating log and SAS concentration feed rate record sheet. Pressure drops across the baghouse shall be measured with a permanently install manometer as part of the particulate matter collection system.

- D. At lease fifteen (15) days prior to the actual date of testing, submit a written test plan to the Agency for review and approval. This plan shall describe the specific procedures for testing, including at a minimum:
 - i) The person(s) who will be performing sampling and analysis and their experience with similar tests;
 - ii) The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
 - iii) The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations;
 - iv) The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
 - v) Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification;
 - vi) Any proposed use of an alternative test method, with detailed justification; and
 - vii) The format and content of the Source Test Report.
- E. Operate the SAS Evaporation and Roasting Process during testing in accordance with normal operating practices. Process or pollution control equipment modifications prior to the tests shall be documented. The report

shall include any changes that may enhance PM control efficiency or reduce emissions through changes in operating conditions.

- F. Prior to carrying out these tests, notify the Agency's Regional Office and the Agency's Source Emission Test Specialist, at the addresses for notice set forth below, a minimum of fifteen (15) days prior to the expected date of these tests and a minimum of five (5) working days prior to the test of the exact date, time and place of these tests, to enable the Agency to witness these tests.

Illinois Environmental Protection Agency
Division of Air Pollution Control - Regional
Office
2009 Mall Street
Collinsville, Illinois 62234
Attention: John Justice

Illinois Environmental Protection Agency
Attn: Source Emission Test Specialist
Division of Air Pollution Control
Intercontinental Center
1701 First Avenue
Maywood, Illinois 60153

- G. Submit three (3) copies of the Final Report(s) to the Agency within fifteen (15) days after the test results are compiled and finalized.
- H. Submit a copy of the Summary of Results, General Information and Conclusions, as contained in the Final Report, to the Source Emission Test Specialist.
- I. Include in the Final Report shall, at a minimum:
- i) A summary of results;
 - ii) General information;
 - iii) Description of test method(s), including description of sampling points, sampling train, analysis equipment and test schedule;
 - iv) Detailed description of test conditions;
 - v) Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption;
 - vi) Control equipment information, i.e., equipment

condition and operating parameters during testing;

vii) A discussion of any preparatory action taken,
i.e., inspections,

J. This variance shall expire on February 1, 1994 or upon
petitioner achieving compliance with 35 Ill. Adm. code
212.322(a), whichever comes first.

3. Within 10 days of the date of this order, Petitioner shall
execute and forward to:

L. L. Kroack
Assistant Counsel
Bureau of Air
Illinois Environmental Protection Agency
P.O. Box 19276
Springfield, Illinois 62794-9276

This ten day period shall be held in abeyance for any period
during which this matter is appealed. The form of the
certification shall be as follows:

CERTIFICATION

I (We), _____,
hereby accept and agree to be bound by all terms and
conditions of the Order of the Pollution Control Board
in PCB 93-178, December 16, 1993.

Petitioner

Authorized Agent

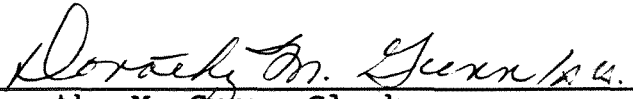
Title

Date

IT IS SO ORDERED.

Section 41 of the Environmental Protection Act, 415 ILCS 5/41 (1992), provides for appeal of final orders of the Board within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 16th day of December, 1993 by a vote of 2-0.


Dorothy M. Gunn, Clerk
Illinois Pollution Control Board