

ILLINOIS POLLUTION CONTROL BOARD
March 15, 1979

PPG INDUSTRIES, INC.,)	
)	
Petitioner,)	
)	
v.)	PCB 78-210
)	
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

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

This matter comes before the Board upon a Variance Petition filed by PPG Industries, Inc. ("PPG") on August 7, 1978 requesting relief from Rule 203(a) of Chapter 2: Air Pollution Control Regulations pertaining to the proposed conversion of the Petitioner's sheet glass plant in Mt. Zion, Illinois to a float glass manufacturing facility. The Illinois Environmental Protection Agency ("Agency") filed its initial Recommendation on September 27, 1978. After numerous preliminary motions were filed, hearings were held on December 5 and 6, 1978 on this matter. Subsequent to these hearings, the Petitioner's Motion to Reopen the Hearing and Supplement the Record (in order to introduce additional evidence concerning the effect of its emissions on ambient air quality standards; air quality modeling; and technical data on the flow of gases from various components to the stack outlet) was granted on February 15, 1979. On March 6, 1979, the Petitioner filed a Motion to Amend its Variance Petition which included a proposed compliance schedule that reflected an agreement resulting from discussions among representatives of PPG and the Agency. The Agency has indicated that it has no objection to Petitioner's motion. Accordingly, the Board hereby grants the Petitioner's Motion to Amend its Variance Petition. On March 9, 1979, the Hearing Officer granted the Petitioner's Motion to Incorporate the Record of R78-12 (the related PPG proposed rule-change proceeding) into the record of the Variance proceeding PCB 78-210 (including all the requisite evidence, testimony, exhibits, etc.).* Concomitantly, on March 9, 1979, the Hearing Officer granted the Petitioner's Motion to Vacate the Supplementary Hearing that originally had been set for a later date. Additionally,

*On March 7, 1979, the Petitioner filed a Motion to Stay Proceedings in R78-12 which was granted by the Board on March 15, 1979.

on March 9, 1979, the Petitioner filed an Application for Nondisclosure of confidential trade secret information pertaining to various technical data and secret processes connected with the float glass melting furnace. Pursuant to Section 7.1 of the Act and Rule 107 of the Board's Procedural Rules, the Petitioner's Application for Nondisclosure is hereby granted. The Agency filed an Amended Variance Recommendation on March 13, 1979 which reflects an amicable resolution of previously existing differences between the parties.

PPG Industries, Inc. owns and operates a sheet glass plant at Mt. Zion, Illinois. The plant employs approximately 455 people from the Decatur area. The existing plant has been in operation since 1959. In 1977, the Mt. Zion plant contributed more than \$11.3 million to the economy of Central Illinois with a payroll of \$7.3 million representing the largest share of that economic contribution. Purchases from 165 area suppliers total \$650,000, while utility and transportation expenses amounted to \$3.2 million. The plant was also responsible for \$248,000 in state and local tax payments. In 1978, PPG Industries' plant contributed over \$12,100,000 to the economy of Illinois. (R. 41).

The Company's plant is located in Mt. Zion Township, Macon County, about 1 mile southeast of the Decatur city limits and 1 mile west of the Mt. Zion city limits. Decatur Township is designated an Air Quality Maintenance Area and a non-attainment area for particulates. Four stations in Decatur Township have recorded violations of the annual primary or secondary standards for particulates. Most of the land located near the facility is used for farming. There are a few homes scattered within a 1/2 mile radius from the plant and a school is located 1/2 mile to the east. The elevation of the plant is approximately 700 feet with no unusual terrain features. The Petitioner is the largest emission source in Mt. Zion Township. The township of Mt. Zion is currently classified as an attainment area for total suspended particulates and the air quality is better than national standards.

PPG Industries, Inc. tentatively plans to replace the existing sheet glass plant with a new float glass plant which will consist of four main processes: batching the raw material, melting the raw material, refining the molten glass and finishing the formed products. The major raw materials include cullet (scrap glass), sand, soda ash, and limestone. Minor ingredients include salt cake, aluminum oxide, barium oxide, boron oxide and carbon. Minor ingredients may exist as impurities within the major types. In 1963, PPG introduced the float glass manufacturing process to the United States. This technique is based on a new glass forming concept in which the molten glass floats on a bath of molten tin and remains untouched until hard. This enables the glass to be

economically produced to the high optical quality of plate glass, without grinding and polishing combined with the fire-finished brilliance of sheet glass. Aside from the new glass-forming technique, other aspects of manufacturing the glass are essentially the same in the sheet glass and float glass processes. The raw material collection and melting processes, which occur before the forming process, are the same for both the float and sheet glass operations. Accordingly, the major difference between the two facilities will be in refining the molten glass and finishing the formed products.

The new float glass process has allowed the Company to manufacture a higher quality of float glass; and, because of this, sheet glass has lost acceptability in the marketplace, resulting in decreased demand for sheet glass. Recognizing this fact, PPG Industries, Inc. is contemplating the conversion of the Mt. Zion plant from the sheet to the float process at a capital cost of approximately \$60,000,000. However, in the event that such conversion is not made, the Mt. Zion plant (which is the Company's last remaining North American sheet glass plant) will be shut down because of the decreased demand for sheet glass. Such a shut-down would have a severe impact on the economy of Central Illinois, resulting in the loss of about 455 local jobs and the loss of over \$12,100,000 per year that the plant contributed to the Illinois economy.

The production rate for the proposed float plant is estimated at 650 tons per day compared to 370 tons per day for the existing plant. Each facility would operate continuously 365 days a year, 24 hours a day. The existing facility complies with the allowable particulate emission rate under Rule 203(b) of Chapter 2: Air Pollution Control Regulations relating to existing plants. The proposed float glass plant would comply with Rule 203(b) of the Board's Air Pollution Control Regulations, but is unable to meet the more strict requirements of Rule 203(a) of Chapter 2: Air Pollution Control Regulations relating to new facilities. At the hearings on the Petitioner's requested Variance from the requirements of Rule 203(a) of the Board's Air Pollution Control Regulations, evidence was introduced to show that conventional add-on control devices used to reduce particulate emissions are unproven in the flat glass industry for technical reasons associated with product quality. Other industries have been able to utilize such devices because quality of product has not been such a critical factor. PPG Industries, Inc. is currently engaged in ongoing research and development programs which have resulted in substantial reductions in particulate emissions and fuel conservation. PPG Industries introduced evidence that, based upon the air quality modeling which was performed, the net effect on the ambient air quality in the Mt. Zion-Decatur area due to this conversion from sheet to float glass will be negligible.

After a number of meetings between Agency and Company representatives to discuss and seek resolution of contested issues and to develop a compliance program and schedule acceptable to both parties, the Agency filed an Amended Variance Recommendation on March 13, 1979 which outlines this agreed upon compliance program and incorporates a number of specific conditions to aid in the proper administration of this compliance program. The Amended Variance Recommendation recommends that the Board grant the Petitioner a Variance from Rule 203(a) of Chapter 2: Air Pollution Control Regulations ("Rule 203(a)") for a period of 5 years beginning as of the date of start-up, rather than the date of the entry of the Order. Such a time period is consistent with Section 36 of the Act, since the statutory language does not prohibit the Board from granting a Variance for a period of time which has an effective date starting at a designated time in the future. Moreover, a Variance from Rule 203(a) should not cover the period of time before start-up because, for that period of time, there is no need for a Variance because there are no non-complying emissions. The need for a Variance from Rule 203(a) effective as of the date of start-up is not speculative. PPG Industries, Inc. has shown a corporate commitment to the Mt. Zion location and, without some pollution control device or technique, it will begin operation with an emission rate that exceeds the limitation contained in Rule 203(a). (See: Amended Rec. 5).

Throughout the Variance proceeding, the Agency and Petitioner have vigorously litigated the issues of whether the use of an add-on pollution control device, such as an electrostatic precipitator (ESP), will achieve compliance with Rule 203(a), whether an ESP will adversely impact the quality of the glass produced, and whether the ESP may adversely affect the glass melting furnace. These issues remain unresolved between the parties at this time. Nonetheless, the parties have sought and found a common ground for agreement which will provide for a lowering of emissions and an improvement in air quality from what PPG originally proposed, but yet would not require PPG to install a pollution control device which it believes threatens its ability to manufacture flat glass at the Mt. Zion plant. In its Amended Recommendation, the Agency stated that it believes that PPG should be given the opportunity to determine whether it can successfully reduce particulate emissions by the use of process modifications. (Amended Rec. 3). The Agency notes that the Company has "evidenced a corporate willingness" to achieve compliance under this program. (Amended Rec. 4). Additionally, allowing the Petitioner to follow a course of compliance through process modifications may have an additional environmental benefit in that this expertise can be utilized at other PPG plants to reduce particulate emissions. On the other hand, requiring an add-on control device at this time would necessitate a change from a tried, proven, reliable and efficient combustion system to one that has never been successfully used to produce high quality float glass. Thus, it appears that process modifications are currently the "most reasonable, economic and feasible means of reducing emissions from the float glass melting process." (R. 67).

Moreover, the specific conditions attached to the Agency's Amended Recommendation are designed to carefully circumscribe the limits of the proposed compliance program. Condition L requires a regular reporting on a semiannual basis as to progress in reducing emissions. Conditions E, G and I require interim reductions on a scheduled basis. Conditions F, H and J require PPG to certify whether it will be successful in achieving the emission reductions; if PPG cannot so certify, then under Condition K it must come forward with a suitable alternative compliance program involving an add-on control device, such as an ESP. Finally, Condition B requires PPG to design and build its proposed float glass plant in such a way that an electrostatic precipitator or other add-on emission control device can be installed without the retrofit costs that would otherwise be necessary. (See: Amended Rec. 7-8).

Accordingly, in light of the negligible environmental impact on ambient air quality standards, technological considerations, and the countervailing costs of compliance, the Board finds that denial of the requested relief would impose an arbitrary and unreasonable hardship upon the Petitioner. The Petitioner, PPG Industries, Inc., is hereby granted a Variance from Rule 203(a) of Chapter 2: Air Pollution Control Regulations for a period of 5 years with the Variance beginning as of the date of start-up of the Mt. Zion float glass plant, subject to the specific conditions delineated in the Board's Order.

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

ORDER

It is the Order of the Illinois Pollution Control Board that PPG Industries, Inc. is hereby granted a Variance from Rule 203(a) of Chapter 2: Air Pollution Control Regulations for a period of 5 years with the Variance beginning as of the date of start-up of the Mt. Zion, Illinois float glass plant, subject to the following conditions:

1. PPG submits an application for a Construction Permit by June 1, 1979 for its proposed Mt. Zion, Illinois float glass plant.
2. Such construction application should show, in case compliance cannot be achieved by process modifications, where an electrostatic precipitation device (ESP) or other add-on control equipment will be located at the plant and what modifications to the operation of the plant will be necessary to allow installation and operation of the control equipment.

3. After start-up, particulate emissions from the proposed plant shall not exceed 40 lbs./hr.

4. Within 18 months after start-up, PPG shall certify to the Board and the Agency whether, by 30 months after start-up, particulate emissions will be reduced by process modifications so that such emissions do not exceed 30 lbs./hr.

5. After 30 months after start-up, particulate emissions from the proposed plant shall not exceed 30 lbs./hr.

6. 36 months after start-up, Petitioner shall certify to the Board and the Agency whether, by 48 months after start-up, particulate emissions will be reduced by process modifications so that such emissions do not exceed 25 lbs./hr.

7. After 48 months after start-up, particulate emissions from the proposed plant shall not exceed 25 lbs./hr.

8. 48 months after start-up, Petitioner shall certify to the Agency and the Board whether, by 60 months after start-up, particulate emissions from the proposed plant will be in compliance with the requirements of Rule 203(a).

9. If at 18, 36 or 48 months after start-up, Petitioner cannot certify that the next increment of particulate emission reductions will be met in a timely manner Petitioner shall, at that time, submit to the Board and the Agency a plan and a schedule, not longer than 12 months, for the installation and commencement of operation of an ESP or other add-on control device which is designed to achieve compliance with Rule 203(a).

10. Beginning 6 months after start-up and continuing on a semi-annual basis until final compliance with Rule 203(a) is achieved, PPG shall submit to the Agency a report detailing the progress made in the previous six months towards reducing particulate emissions.

11. In the event that PPG has not commenced construction (as that term is defined under 40 CFR Section 60.2) prior to promulgation of a New Source Performance Standard ("NSPS") under Section 111 of the Clean Air Act that is applicable to float glass plants, this Variance may cease to be effective because PPG would be subject to the more strenuous requirement of Section 111 and the pass-through provision of Section 9.1 of the Illinois Environmental Protection Act. However, the Variance will remain in effect if enforcement of the NSPS is stayed in any federal judicial action seeking review of the NSPS.

12. PPG Industries, Inc. is hereby notified that, in the event that PPG fails to comply with the terms of this Variance, PPG may be required to pay a non-compliance penalty pursuant to Section 120 of the Clean Air Act of 1977.

13. The Agency will submit to the United States Environmental Protection Agency (USEPA), pursuant to Section 4(m) of the Illinois Environmental Protection Act, the Variance granted by the Board in this case (which extends the time for final compliance beyond July 1, 1979) as a revision to the Illinois State Implementation Plan ("SIP") under Section 110(a)(3) of the Clean Air Act. The Agency will include this Variance with the SIP revisions which must be presented to USEPA under the requirements of the 1977 Clean Air Act Amendments.

14. Within forty-five (45) days of the date of this Order, the Petitioner shall submit to the Manager, Variance Section, Division of Air Pollution Control, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois, 62706, an executed Certification of Acceptance and Agreement to be bound to all terms and conditions of the Variance. The forty-five day period herein shall be suspended during judicial review of this Variance pursuant to Section 41 of the Illinois Environmental Protection Act. The form of said certification shall be as follows:

CERTIFICATION

I, (We), _____ having read the Order of the Illinois Pollution Control Board in PCB 78-210, understand and accept said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

SIGNED

TITLE

DATE

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 15th day of March, 1979 by a vote of 5-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board