

ILLINOIS POLLUTION CONTROL BOARD
December 4, 1975

TEXACO, INC.,)
)
) Petitioner,)
)
) v.) PCB 75-339
)
) ENVIRONMENTAL PROTECTION)
) AGENCY,)
)
) Respondent.)

Mr. James P. Peyton, Attorney, appeared for the Petitioner;
Mr. John Palincsar, Attorney, appeared for the Respondent.

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

On August 28, 1975 Texaco, Inc. (Lockport Refinery) filed a Petition for Variance with the Illinois Pollution Control Board (Board). Petitioner requested a variance from the requirements of Rule 204(c)(2) and Rule 204(d) of Chapter 2: Air Pollution, of the Board's Rules and Regulations. PCB Regs., Ch. 2, Rules 204(c)(2), 204(d). Petitioner is seeking the variance for its Lockport Refinery, for a period of 13-1/2 months, from August 28, 1975 to October 10, 1976, pending the installation by Texaco of emission control equipment to bring its sulfur dioxide emissions into compliance.

Petitioner operates a petroleum refinery immediately adjacent to the city of Lockport in Will County, Illinois, which processes approximately 72,000 barrels of crude oil per calendar day. A Fluid Catalytic Cracking Unit Sour Water Stripper system is used at the refinery. This system contacts sour water; that is, process water containing hydrogen sulfide and ammonia, with steam vaporizing those materials. The vaporized hydrogen sulfide and ammonia are now routed to a nearby charge heater for incineration. At the charge heater the hydrogen sulfide is converted by oxidation to sulfur dioxide, which is then emitted from the heater stack. The sulfur dioxide emissions resulting from the incineration of the sour water stripper overhead gases cause the refinery heater to exceed the allowable sulfur dioxide emission standard. Texaco admits emission from its Fluid Catalytic Cracking Unit preheater of 2.63 pounds of sulfur dioxide per million BTU's of actual heat input. (Pet. p. 3.) This emission exceeds the allowable level of 1.0 pounds of sulfur dioxide per million BTU's as established by Pollution Control Board Rule 204(d). While the Petition also asks for a variance from Rule 204(c)(2), Ch. 2, a variance from this rule is not applicable, as this rule applies only to emission sources burning liquid fuel exclusively.

Petitioner proposes to correct the existing condition by the installation of a system which would route gases with high sulfur content through a Sulfur Recovery Unit. This system would convert the hydrogen sulfide to elemental sulfur, rather than allowing it to be emitted as sulfur dioxide. The Agency believes that this control system proposed by the Petitioner, if properly designed and operated, would bring the sour water stripper into compliance with Rule 204(d). (Rec. p. 3.)

Texaco has demonstrated considerable good faith in its attempt to achieve compliance with the sulfur dioxide standards. Texaco had a management advisory study for problem identification initiated by Air Resources, Inc. in March of 1972. The preliminary results of this study caused Texaco to retain Brown and Root, Inc. with regard to the sulfur problem and also to conduct engineering studies on other projects to bring the Lockport Refinery into compliance with applicable air and water regulations.

In June of 1973 Brown and Root, Inc. commenced work on six compliance projects including the required work to bring the Fluid Catalytic Cracking Unit sour water stripper system into compliance. Three projects for the control of hydrocarbons and one project for the control of particulates required engineering. Since these projects all had earlier compliance dates than the sulfur dioxide control projects, these projects were given a higher priority by Petitioner for completion. Petitioner's efforts in all of these compliance efforts have been acceptable to the Agency. (Rec. p. 3.) Even though a higher priority was given to these other projects, Petitioner has, nonetheless, made considerable headway in the installation of the Sulfur Control System. The engineering work for the system was completed December 14, 1974. Petitioner submitted an Illinois Environmental Protection Agency Construction Permit Application on March 26, 1975. Orders for equipment and materials were placed by June 15, 1975. Petitioner is now waiting for delivery of the materials and equipment to complete installation. Construction should be completed by October 1, 1976, with October 10, 1976 fixed as the operational date.

The question of determining whether an arbitrary or unreasonable hardship exists is determined by a balancing process, that is, balancing the benefits of the Petitioner and the public in granting the variance versus the harm to the public and the Petitioner in denying the variance. See, Hayes Branch Drainage District No. 4 of the Town of Tuscola v. EPA, PCB 71-356, -357, 3 PCB 613 (1972).

Petitioner states that pending installation of the Sulfur Recovery Control System, its only method of compliance would be a shutdown of the Fluid Catalytic Cracking Unit with a resulting curtailment in production. This would result in a substantial loss in refined petroleum products for the area, as well as a loss of employment.

The Agency's 1974 Annual Air Quality Report indicates that sulfur dioxide ambient air quality standards were not exceeded either on a daily or annual basis in the Joliet-Lockport area. The Agency's Lockport bubblers indicated an annual average of 0.013 parts per million and a daily high of 0.082 ppm for sulfur dioxide. Similarly, none of the five bubblers in Joliet operated by the Will County Public Health officials indicated either annual or daily sulfur dioxide violations. (Ag. Rec. p. 3.) Statistical analysis of actual monitored air quality data projects that the Refinery contributes a maximum of 0.006 parts per million (ppm) by volume on an annual average to background sulfur dioxide levels. The contribution from the Fluid Catalytic Cracking Unit charge heater constitutes less than 15% of the total plant sulfur dioxide emissions. It should also be noted that there has been a 20% reduction in plant sulfur dioxide emissions since the startup of the Sulfur Recovery Unit in April, 1975. In view of the potential severe hardship posed to the Petitioner and the community, as weighed against the actual harm to the community and public, Petitioner has carried its burden.

As discussed above, this Joliet-Lockport area meets the national ambient air quality standards as required by Train v. NRDC, 43 U.S.L.W. 4467 (U. S. No. 73-1742, April 16, 1975). This determination alone, however, does not automatically entitle Petitioner to a variance. The other relevant factors set out in the Act, our Rules, and our prior decisions must also be considered. Since Petitioner has also met those requirements, the variance can be granted if subject to the following conditions.

As required by Section 36 of the Environmental Protection Act, a performance bond is required in any case in which additional time is requested to bring Petitioner into compliance. Ill. Rev. Stat., Ch. 111-1/2, Sec. 1036. A performance bond of \$10,000.00 will be sufficient to assure compliance with our Regulations.

In addition, the grant of the variance is conditioned upon a requirement that Petitioner continues to emit sulfur dioxide at or below its current sulfur dioxide emission levels, and that Petitioner make regular and proper reports to the Agency so that Petitioner remains on the established schedule; and lastly, a standard certificate of acceptance is included.

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

ORDER

IT IS THE ORDER OF THE POLLUTION CONTROL BOARD that Petitioner Texaco, Inc. be granted a Variance from the sulfur dioxide standards of Rule 204(d), for its Lockport Refinery's Fluid Catalytic Cracking Unit preheater, for the period from August 28, 1975 to October 10, 1976, subject to the following conditions:

1. Petitioner shall adhere to the compliance schedule enumerated on page 5 of the Petition for Variance.

2. Petitioner shall post a Ten Thousand Dollar (\$10,000.00) performance bond with the Illinois Environmental Protection Agency, in a form satisfactory to that Agency, to assure completion of the construction contemplated in the accompanying Opinion. Such bond shall be posted within 30 days of the Date of this Order, at the following address:

Environmental Protection Agency
Division of Air Pollution Control
Control Program Coordinator
2200 Churchill Road
Springfield, Illinois 62706

3. Petitioner shall make detailed, documented progress reports to the Agency, at the above address, on the first business day of each quarter until final compliance has been achieved.

4. Emissions from the Fluid Catalytic Cracking Unit preheater shall not exceed the present level of 2.63 pounds of sulfur dioxide per million BTU's of actual heat input.

5. Within 30 days of the date of the adoption of this Order Petitioner, Texaco, Inc., shall complete and submit to the Environmental Protection Agency, at the above address, the following certification:

I, (We), _____ having read the Order of the Illinois Pollution Control Board in case No. PCB 75-339, understand and accept said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

SIGNED

TITLE

DATE

IT IS THE FURTHER ORDER OF THE BOARD that the portion of the Variance Petition requesting relief from Rule 204(c) (2) be dismissed.

Mr. Dumelle dissented.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 4th day of December, 1975 by a vote of 3-1.



Christan L. Moffett, Clerk
Illinois Pollution Control Board