ILLINOIS POLLUTION CONTROL BOARD
August 8, 1974

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| TEXACO INC. (LOCKPORT REFINERY) PETITIONER | ) | |
| v. | ) | PCB 74-126 |
| ENVIRONMENTAL PROTECTION AGENCY RESPONDENT | ) | |

OPINION AND ORDER OF THE BOARD (by Mr. Marder)

This case comes to the Board on petition of Texaco, Inc., for variance from Rule 205 (g)(2) for its delayed coking unit located at its Lockport, Illinois, refinery until September 1, 1974.

Petitioner filed an Amended Petition on May 14, 1974, pursuant to a Board Order dated April 4, 1974, requesting more information on environmental impact.

The Agency recommends the grant of the requested variance in its Recommendation filed July 23, 1974.

The Lockport refinery has been operated by Texaco since 1911. It has a capacity of 72,000 barrels of crude oil per day and employs 800 persons.

The process carried out in the delayed coking unit is thermal cracking of charge stocks. This takes place in two large vessels called coke drums. It is a batch processing operation, with only one drum being used at a time. The hot charge is routed to a drum where cracking takes place. As a result of the cracking, some of the charge is laid down as coke in the drum. The vapors proceed to the fractionating tower for separation. When the batch is completed, the drum is completely full of porous coke. At this point, there is no further input into the drum, but vapors are still going off to the fractionating tower for processing. At this point blowdown of the unit takes place. The vapors are rerouted to a blowdown knock-out drum. Steam is then injected into the drum to purge the vapors from the coke drum. Then the vapor is water-cooled in the blowdown quench drum. Part of the vapors are liquefied and are discharged to the sewers. The remaining vapors are discharged to the atmosphere, and are the vapors in question.

Vapor emissions of hydrocarbons are as follows: 253.4 lbs/hr. -

31,500 ppm. The limit set in Rule 205 (g)(2) is 10 ppm. Such emissions are of a periodic nature, existing only when the unit is being blown down.

The control proposed for these vapor emissions is a knockout pot to collect and condense the vapors further. Non-condensable vapors will then be routed to a smokeless flare.

Petitioner's compliance schedule to complete installation of the proposed equipment is as follows:

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| Jan. 28, 1974 | Apply for IEPA construction permit |
| Feb. 22, 1974 | Contract for concrete construction to be awarded (other construction work to be done by in-house personnel) |
| March 15, 1974 | Start construction |
| Sept. 1, 1974 | End construction |
| Sept. 1, 1974 | Start operations |

This project is estimated to cost $80,000.

The Board takes notice of the fact that though Rule 205 (g)(2) went into effect on December 31, 1973, a permit to construct this equipment was not applied for until January 28, 1974, a month later. Nowhere does Petitioner allege any reason for this delay. Attached to the Petition is a chart indicating that this project has been in the works since May of 1972. The Board fails to understand why initiating the construction of this project did not begin until 22 months after initial consideration was given by Texaco to this project. It appears that there is no new or novel technology being used to control this emission source. This Board cannot speculate as to why this project could not have been accelerated to meet the December 31, 1973, deadline. While there may have been acceptable reasons for this delay, the Petition is devoid of such evidence. It is clearly the burden of Petitioner to supply such data, and without it the Board must find that Petitioner has failed to establish due course for the grant of variance.

Hardship:

Petitioner alleged that it would suffer unreasonable and arbitrary hardship if this variance is not granted, for the reasons that follow.

1. It cannot comply with Rule 205 (g)(2) before September 1, 1974, because of fixed delivery dates from equipment vendors, beyond Petitioner's control.
2. A shutdown of the unit from May 1, 1974, until September 1, 1974, would decrease production by 960,000 barrels of gasoline, 678,000 barrels of middle distillate, and 28,320 tons of coke. Backup in tankage causes a loss of 184,000 barrels of recovered gas oil. These products would be lost to the public and would cost the Petitioner $1,376,322. Petitioner would have to lay off 22 persons for four months and 31 persons for one month.

The hardship case thus rests on the possibility of an enforcement action being filed should Petitioner fail to cease operations in violation of Rule 205 (g) (2). It must be noted that even if this Board were to grant variance, Petitioner is still liable to enforcement for the period of January 1, 1974, to April 2, 1974 (the date of filing of the original variance petition). This Board cannot help but wonder why, if Petitioner is concerned with possible enforcement action, they waited until April 2, 1974, to file for variance. If the project for abatement was initiated in 1972, Petitioner should have filed its petition by October 1, 1973, to assure itself total protection. Surely Petitioner was aware that it would not be in compliance by December 31, 1973. Therefore, Petitioner by its own inaction has left itself open for enforcement proceedings for a significant period of time. In light of this the Board must find that Petitioner has not met its burden of proof regarding hardship, or even that such hardship was not self-imposed.

Environmental Impact:

Petitioner alleges that there will be no injury to the public from the grant of this variance, in that its emissions do not contribute to photochemical smog. Air monitoring performed for Petitioner by Air Resources, Inc., taken between November 19, 1973, and December 17, 1973, showed the following results:

| Pollutant | Ambient Air | Refinery Contribution | Ill. ppm Standard |
|---|---|---|---|
| Oxidants | 0.059 | 0.001 | 0.08 |
| $NO_x$ | 0.017 | 0.001 | 0.05 |

No data is presented to show how the refinery contribution was calculated.

Petitioner alleges that its discharges will not contribute to photochemical smog. This conclusion is based on tests which show that less than five percent of its emissions are olefinic compounds. This conclusion, however, is not sufficient to meet the criteria as outlined in Chapter 2 of the Board Rules. The definition of photochemically reactive material includes three distinct categories of organic emissions. Petitioner explores only one - olefinics. There is no mention of aromatics of eight carbon atoms or more, or of ethylene, branched hydrocarbons, or toluene. The combination of any of the above may not exceed 20%, nor can the aromatics alone exceed 8% to be considered non-photochemically reactive. Without such data the Board cannot accurately assesss the contribution such vapors will add to the potential of photochemical smog.

The Board takes note of the recent high ozone levels in the Chicago major metropolitan areas. As such we must be even more aware that photochemical smog can no longer be assumed a potential problem, but one which becomes more real as time goes on.

On April 4 an Agency inspector noted no odors outside the refinery boundaries. The refinery is in an industrial area with no residential buildings within 1/4 mile of the facility. The Agency has received no citizen complaints.

In its recommendation, the Agency reached the following conclusions:

1. Petitioner is installing an approved control system which does not require auxiliary fuel.

2. The proposed control system will bring the unit into compliance with Rule 205 (g) (2).

3. The proposed time schedule is not unreasonable.

4. There will be no "abnormally great effect on ambient air quality" by the grant of this variance.

Although the Board has no reason to dispute the above conclusions of the Agency, we must conclude that the data provided by Petitioner is insufficient for the grant of a variance. This decision is based on the fact that Petitioner has not complied with the intent of Section 35 of the Environmental Protection Act, which specifically states that variances may be granted "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." Again, while such data may exist, it has not been adequately presented to the Board. The variance will be denied without prejudice to allow Petitioner to reinitiate this proceeding and provide adequate proof of non-self-imposed delay, if it so desires.

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

ORDER

IT IS THE ORDER of the Pollution Control Board that petition for variance filed April 2, 1974, by Texaco, Inc., is denied without prejudice.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, certify that the above Opinion and Order was adopted by the Board on the 8th day of August, 1974, by a vote of 4 to 0.