

ILLINOIS POLLUTION CONTROL BOARD
July 10, 1980

MOBIL OIL CORPORATION,)
)
 Petitioner,)
)
 v.) PCB 80-53
)
 ILLINOIS ENVIRONMENTAL)
 PROTECTION AGENCY,)
)
 Respondent.)

OPINION AND ORDER OF THE BOARD (by I. Goodman):

On April 15, 1980 the Petitioner, Mobil Oil Corporation, filed a Revised Petition for Variance Extension. Petitioner seeks an extension of the variance from Rule 408(a) of Chapter 3: Water Pollution (hereinafter, Chapter 3) granted to it in PCB 78-277. The Petitioner has waived a hearing in this matter. The Illinois Environmental Protection Agency (Agency) recommends that Petitioner be granted a variance from Rule 408(a) of Chapter 3, as it pertains to cyanide, until December 31, 1981 subject to specified conditions. Pursuant to the Board's Procedural Rule 402(a), the Petitioner has requested that the record from the prior variance proceeding (PCB 78-277) be incorporated into the record. The request is granted.

Petitioner owns and operates a conventional petroleum fuel refinery in Channahon Township, Will County, Illinois. The facility utilizes water from the Des Plaines River for boiler feed, cooling tower makeup, and as once-through, non-contact cooling water. Process water from the refinery is subjected to pre-treatment and final treatment before being discharged into the Des Plaines River.

The Board has granted Petitioner a variance from cyanide limitations on six previous occasions. The most recent variance, was granted on February 1, 1979 and extended until July 1, 1980. Petitioner in its February 25, 1980 progress report stated that additional control measures had been installed and that monitors were in operation. The report also indicated that a test of ammonium polysulfide injection into the fluidic catalytic cracker (FCC) unit to evaluate the conversion of cyanides to biodegradable thiocyanates would be conducted.

Petitioner is currently studying bio-nitrification to determine whether it contributes to cyanide excursions. The nitrification treatment facility appears to reduce the cyanide levels and then release cyanide in a slug load when nitrification

rates are high; therefore, Petitioner has concluded that fluctuations in the bio-system pH during nitrification may be one of the primary contributing factors in the release of cyanide from the biomass. Furthermore, studies indicate that nitrate ions cause a positive interference with the total cyanide test. Petitioner is currently determining whether this phenomenon is causing its reported cyanide excursions.

Despite effluent level excursions, cyanide concentrations in the river mixing zone have remained very low. Upstream and downstream monitoring reports indicate that the refinery is not adding significantly to cyanide levels in the Des Plaines River.

The Board finds that an arbitrary and unreasonable hardship would be imposed upon the Petitioner if the variance extension were denied. The lack of available control technology for cyanide, the good faith efforts of the petitioner, and the absence of noticeable harm to the environment convince the Board that the petitioner should be granted a variance from Rule 408(a) of Chapter 3 until December 31, 1981 subject to conditions included in the Order herein.

The Will County Health Department responded to the variance petition with a letter pointing out the existence of recreational uses of the Illinois River downstream from Mobil and requesting that the Board consider the hazards of cyanide with respect to other uses of the stream. The Board commends the interest taken by the Health Department on behalf of the citizens but, nevertheless, finds that the total discharge levels in this case are so small that any potential harm downstream is de minimus.

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

ORDER

It is the Order of the Illinois Pollution Control Board that:

1. Petitioner, Mobil Oil Corporation, be granted a variance from Rule 408(a) of Chapter 3 until December 31, 1981, subject to the following conditions:

a. The cyanide effluent discharge level shall not exceed a monthly average of 0.2 mg/l and a daily maximum of 0.37 mg/l, with the exception that Petitioner shall be allowed one excursion per month above the daily maximum which shall not exceed an absolute level of 1.5 mg/l.

b. Petitioner shall continue to submit progress reports to the Agency in the same manner as required by previous variances for this facility.

2. This variance shall terminate if Petitioner demonstrates to the Board that, under the same facts as herein, positive interference during the testing procedure is the sole cause for cyanide readings to exceed the limitations in Rule 408(a) of Chapter 3.

3. The Illinois Environmental Protection Agency is authorized to modify Petitioner's NPDES permit to be consistent with the terms of this variance, including granting permission for the use of sulfamic acid in testing for cyanide levels.

4. In the event that Petitioner discovers the cause or causes of its cyanide excursions, it shall immediately notify the Agency thereof, and within a reasonable time thereafter, submit to the Agency a program to achieve compliance with Rule 408(a) of Chapter 3 as it pertains to cyanide.

5. Within 45 days after the date of this Order, Petitioner shall execute and forward to the Illinois Environmental Protection Agency, Division of Water Pollution Control, Compliance Assurance Unit, 2200 Churchill Road, Springfield, Illinois 62706 a Certification of acceptance and agreement to be bound to all terms and conditions of the variance. This 45-day period shall be held in abeyance for any period during which this matter is appealed. The certification shall be as follows:

CERTIFICATION

Mobil Oil Corporation hereby accepts and agrees to be bound by all terms and conditions of the order of the Pollution Control Board in PCB 80-53 dated _____.


_____ Petitioner

By _____, Authorized Agent

_____ Title

_____ Date

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order were adopted on the 10th day of July, 1980 by a vote of 5-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board