

ILLINOIS POLLUTION CONTROL BOARD
June 8, 1978

MOBIL OIL CORPORATION,)
)
 Petitioner,)
)
 v.) PCB 78-97
)
 ENVIRONMENTAL PROTECTION AGENCY,)
)
 Respondent.)

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

This case is before the Board upon a petition for variance filed by Mobil Oil Corporation (Mobil) on March 31, 1978. Mobil seeks a variance from Rule 406 of the Board's Water Pollution Regulations for its discharge of ammonia, until July 1, 1980. On June 9, 1977 the Board granted the Petitioner a similar variance until July 1, 1978 (PCB 77-22, 25 PCB 715). Mobil requests a two-year extension of this variance to allow the continuation of research on technology suitable for achievement of the Rule 406 effluent standard of 3.0 mg/l for ammonia nitrogen. The Petitioner has waived its right to a hearing in this matter.

The subject of this petition is Mobil's refining facility on the Des Plaines River at Joliet. The refinery has a rated capacity of 175,000 barrels per day. Process water is treated at the facility using activated sludge and clarification and is discharged at a rate of 2000 gallons per minute (2.88 million gallons per day). Once through (noncontact) cooling water and clean storm water are discharged separately. In 1977 discharged effluent had an average ammonia concentration of 17 mg/l. Between July, 1977 and March, 1978 the maximum monthly average was 26 mg/l with a maximum daily concentration of 32 mg/l. By the terms of its present variance, Petitioner is allowed a monthly average concentration of 40 mg/l and daily maximum of 90 mg/l. During the two-year extension period sought, Mobil requests interim standards of 37 mg/l monthly average, 81 mg/l daily maximum. This represents 889 and 1957 lbs of ammonia respectively on a daily basis.

In support of its variance petition Mobil alleges that it has made good faith efforts to reduce ammonia discharge and that forced compliance with the 3.0 mg/l standard would create

arbitrary and unreasonable hardship in light of the lack of available and economical technology and the minimal effect which Mobil has on Des Plaines River water quality. Petitioner alleges expenditures of \$1.75 million on ammonia reduction efforts resulting in a 78% reduction in ammonia discharge. Mobil is currently engaged in research efforts to develop the technology necessary for compliance with Rule 406.

The Agency filed its recommendation on May 11, 1978. It indicated satisfaction with Mobil's efforts to comply and recommended granting the two-year variance provided, inter alia that Mobil comply with interim effluent standards of 26 mg/l daily average and 40 mg/l daily maximum. Petitioner filed a response May 22, 1978 contending that the interim standards are too restrictive because they are based on 1977 discharge data which do not reflect normal levels of operations or account for higher discharge during the winter months.

The Board finds that extension of the Rule 406 variance for two years is warranted in this case. Despite expenditures on control equipment and research programs, the technology necessary to reduce refinery ammonia discharge to 3.0 mg/l is still not economically available. In light of recent improvement in dissolved oxygen levels in the lower Illinois River and Petitioner's insignificant effect on water quality, forcing compliance at this time would produce minimal environmental benefits and be arbitrary and unreasonable.

The Board agrees with Petitioner that the interim effluent standards should be 37 mg/l monthly average and 81 mg/l daily maximum instead of the more restrictive levels recommended by the Agency. These more accurately reflect Petitioner's present treatment capability at full refinery output.

The Board will direct the Agency to issue a new NPDES permit to Petitioner consistent with this Order pursuant to Rule 914 of Chapter 3 and to include interim effluent limitations as may reasonably be achieved through the application of the best practicable control technology currently available.

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 Mobil Oil Corporation be granted a variance from Rule 406 of Chapter 3 of the Board's Regulations until July 1, 1980 for its refinery facility at Joliet, Illinois under the following conditions:

1. Mobil's ammonia nitrogen effluent discharge shall not exceed a monthly average discharge of 37 mg/l or a daily maximum of 81 mg/l.
2. If written consent can be obtained from the Williams Brothers consultant, Petitioner shall provide the Agency with a summary of the findings of the "Williams Brothers Study" within three months of the date of the Board Order herein. Such summary shall describe the experimental apparatus used, the manner in which such apparatus was used, and the ammonia nitrogen levels obtained as a result of this treatment technique.
3. Petitioner shall make a good faith effort to develop a program which will result in compliance with Rule 406 of Chapter 3.
4. Within three months from the date of the Board Order herein, Petitioner shall furnish the Agency with a description of the ammonia nitrogen control techniques to be studied during the variance period. Petitioner shall provide the Agency with progress reports every two months (the first not later than two months from the date of the Board Order herein) which will outline Petitioner's efforts to achieve compliance with Rule 406. These reports shall continue to reflect the ammonia nitrogen concentrations in Petitioner's effluent discharge during the preceding two month period.
5. Petitioner shall no later than July 1, 1980 provide the Agency with a written technical proposal and time schedule for compliance with Rule 406.
6. Petitioner shall request the Agency to issue a permit to incorporate all conditions of the variance set forth herein.
7. The Agency, pursuant to Rule 914 of Chapter 3, shall issue a new NPDES permit consistent with the conditions set forth in this Order including appropriate

monitoring requirements and such interim effluent limitations as may reasonably be achieved through the application of the best practicable control technology currently available.

- 8. Within 45 days after the date of this Board Order herein, the Petitioner shall execute and forward to the Illinois Environmental Protection Agency, Variance Section, Manager, 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 form of said Certification shall be as follows:

CERTIFICATION

I (We), _____ having read and fully understanding the Order of the Illinois Pollution Control Board in PCB 78-97 hereby accepts said Order and agree to be bound by all terms and conditions thereof.

SIGNED

TITLE

DATE

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 8th day of June, 1978 by a vote of 5-0.

Christan L. Moffett
Christan L. Moffett, Clerk
Illinois Pollution Control Board