

ILLINOIS POLLUTION CONTROL BOARD
February 15, 1979

MARATHON OIL COMPANY,)
)
 Petitioner,)
)
 v.) PCB 78-176
)
 ENVIRONMENTAL PROTECTION AGENCY,)
)
 Respondent.)

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

Petitioner has requested a variance for the discharge from its petroleum refinery near Robinson, Illinois. Specifically Petitioner seeks relief from the water quality standard for ammonia nitrogen [Rules 203(f) and 402], and the effluent standard for BOD and suspended solids (Rule 404 f) in Chapter 3: Water Pollution of the Board's Rules and Regulations. Petitioner discharges into an unnamed tributary of Sugar Creek, which flows into the Wabash River.

In an Amended Petition and an Amended Recommendation Petitioner and the Agency have agreed upon interim effluent limitations and a timetable for compliance. For ammonia nitrogen the discharge would not cause the unnamed tributary to exceed a standard of 2.5 mg/l from April until October and 6.0 mg/l from November through March. BOD would not exceed 17 mg/l as a 30 day average and 20 mg/l as a daily maximum. Total Suspended Solids would not exceed 18 mg/l as a 30 day average and 25 mg/l as a daily maximum. Both Petitioner and the Agency have agreed that the variance should run until September 30, 1980 which is the expiration date in Petitioner's NPDES permit No. IL0004073.

Petitioner will improve its ammonia nitrogen effluent by improving the operation of its sour water stripping operation. This should reduce "spikes" which have interfered with effluent quality. Petitioner believes that long term design modification or addition of a nitrification reactor may be necessary. In addition Petitioner will improve the conditions for optimum population density of nitrifying bacteria in the activated sludge basin of its wastewater treatment plant. This should help to minimize violations.

BOD will be controlled through a three point program. 1) Improved influent quality will be obtained through source identification and control. This program will focus on waste flushing streams for process equipment and a review of maintenance procedures for both stationary and mobile equipment. Feed equalization and

pretreatment will be employed to stabilize the loadings on the wastewater treatment plant. 2) Powdered activated carbon will be added to the activated sludge basin. 3) The activated sludge basin will be subject to consistent parametric control.

Suspended solids have already been reduced by the installation of a polyelectrolyte addition facility to the final clarifier. This should reduce the loadings on the tertiary filters. Final effluent will be improved through an improved filter bed cleaning program, improved filter aid addition for flocculation control, and better attention to filter operation consistent with the design of Petitioner's equipment. The tertiary filters have been guaranteed to reduce suspended solids to less than 5 mg/l as a monthly average.

The information on the receiving stream is somewhat sketchy. In Exhibit C attached to the Petition, Petitioner points out that the unnamed tributary has a 7 day, 10 year minimum flow of zero. The flow in this 10-mile tributary consists primarily of municipal and industrial wastewater. In its Recommendation the Agency has included sections of a draft report on the water quality in the Wabash River basin. The report concludes that the area upstream and downstream of Petitioner's discharge is "polluted".

Petitioner's proposed compliance program appears reasonable and looks promising. The interim standards represent Petitioner's present capability. Although the variance will allow Petitioner to continue to adversely affect the unnamed tributary, discontinuing Petitioner's present discharge might not show any measurable improvement. Consequently, the Board concludes that denial of the variance would constitute an arbitrary or unreasonable hardship. The agreed conditions constitute adequate protection for the duration of the variance as long as progress is being made to comply with the Board's standards.

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

ORDER

- 1) It is the Order of the Pollution Control Board that Petitioner be granted a variance from Rules 203(f) and 402 as they pertain to ammonia nitrogen and Rule 404(f) of Chapter 3: Water Pollution of the Board's Rules and Regulations until September 30, 1980 on the following conditions:
 - a) During the terms of the variance, BOD shall not exceed 17 mg/l as a 30 day average and 20 mg/l as a daily maximum.
 - b) During the term of the variance, suspended solids shall not exceed 18 mg/l as a 30 day average and 25 mg/l as a daily maximum.
 - c) During the term of the variance, Petitioner's

effluent shall not cause the receiving stream to exceed an ammonia nitrogen concentration of 2.5 mg/l from April through October or 6.0 mg/l from November through March.

- d) Within 45 days of the date of this Order, Petitioner shall execute and forward to the Illinois Environmental Protection Agency, Division of Water Pollution Control, Variance Unit, 2200 Churchill Road, Springfield, Illinois 62706, a Certification of Acceptance and Agreement to be bound to all the terms and conditions of this variance. This 45 day period shall be held in abeyance during any period this matter is appealed. The form of the Certification shall be as follows:

CERTIFICATION

I, (We), _____ having read and fully understanding the Order in PCB78-176, hereby accept that Order and agree to be bound by all of its terms and conditions.

SIGNED

TITLE

DATE

- 2) If the Agency has or obtains the authority to modify Petitioner's NPDES permit No. IL0004073, it shall do so in a matter consistent with the terms of this Order.
- 3) If the Agency lacks or cannot obtain the authority in the near future to modify Petitioner's NPDES permit No. IL0004073, Petitioner shall seek modification by the U.S. Environmental Protection Agency in a matter consistent with the terms of this Order.

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 February, by a vote of 3-0.

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