

ILLINOIS POLLUTION CONTROL BOARD

September 21, 1978

UNION OIL COMPANY)
OF CALIFORNIA,)
)
Petitioner,)
)
v.) PCB 78-168
)
ENVIRONMENTAL PROTECTION AGENCY,)
)
Respondent.)

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

Petitioner is seeking an extension of a prior variance from Rule 406 of Chapter 3: Water Pollution of the Board's Rules and Regulations. (See Union Oil Company v. EPA, 27 PCB 511, September 29, 1977). The Agency has recommended that the variance be granted subject to certain conditions. No hearing was held.

Petitioner is requesting three years to develop a program which will result in compliance with Rule 406. In the interim Petitioner asks that its discharge of ammonia be limited to 575 pounds daily average and 1260 pounds daily maximum. These are the Federal BPT standards.

Approximately two-thirds of the crude oil processed at Petitioner's Chicago Refinery is "sour" and high in nitrogen. As ammonia controls, Petitioner has installed sour water strippers, eliminated once-through barometric condenser water, segregated its sewers, and eliminated all once-through cooling water. In addition, Petitioner has installed a waste water treatment system consisting of equalization and storm water diversion, API separators, primary and final clarifiers with a bottom settling tank, activated sludge and oxidation ponds, and a polishing pond. Petitioner has also instituted practices which it characterizes as "best available technology". In 1977 these improvements resulted in a monthly average effluent of 16.0 mg/l ammonia. The standard for this facility is 3.0 mg/l. The principal reasons cited by Petitioner for its noncompliance are emergency operational problems, severe cold weather and a major fire caused by lightning. Petitioner is proposing to institute a three-pronged program of ammonia reduction which will consist of identifying and controlling sources of ammonia, improving ammonia removal facilities (including stripper system reliability and cold weather nitrification), and research through an independent consulting firm. No mention is made of any plans to reduce the Chicago Refinery's dependence on sour crude oil.

Petitioner discounts the environmental impact of this variance because of the upstream ammonia pollution of the Chicago Sanitary and Ship Canal by the Metropolitan Sanitary District.

The Agency has recommended that the term of this variance be limited to one year and that a written compliance program be submitted at the end of that period. The Agency points to the fact that Petitioner's wastewater treatment system has not lived up to its design specifications and that compliance with Federal standards is unimportant.

Petitioner states in its Response that its system was designed for an influent ammonia concentration of "virtually zero". This is puzzling since the ammonia water quality in the Ship Canal has been known for some time. Petitioner states that it assumed greater efficiency from its strippers. Problems have arisen from the "varying nature of the 'sour water' processed". Once again, no mention is made of the fact that a significant increase in ammonia has come from the "sour crude" processed at the refinery. Petitioner asserts that its design ammonia effluent concentration was "overly ambitious" since it exceeded the Federal BPT standards. This reliance on Federal standards is misplaced since the standard in this instance (3.0 mg/l) is based on a strategy for achievement and maintenance of downstream dissolved oxygen concentrations.

The Board has been advised of Petitioner's problems and progress in this area and agrees that denial of a variance would constitute an arbitrary and unreasonable hardship. The Board does not agree that three more years with no firm compliance plan is warranted. This variance shall run for two years from September 30, 1978 with a compliance program expected by September 29, 1980.

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

ORDER

It is the Order of the Pollution Control Board that Petitioner be granted a variance from Rule 406 of Chapter 3: Water Pollution of the Board's Rules and Regulations from September 30, 1978 to September 29, 1980 subject to the following conditions:

1. Discharge of ammonia-nitrogen into the Ship Canal shall not exceed a daily average of 575 pounds and a daily maximum of 1,260 pounds;
2. Petitioner shall continue to make a good faith effort to develop a program which will enable it to comply with Rule 406. Petitioner shall continue

to pursue research efforts including analysis of biological nitrification in various formats;

3. Petitioner shall submit to the Agency bi-monthly progress reports on its research efforts, detailing with particularity what methods and systems are being tried or considered. These reports shall reflect the ammonia-nitrogen concentrations in Petitioner's effluent discharge during the preceding two-month period;
4. Petitioner shall, no later than September 29, 1980, provide the Agency with a written technical proposal and time schedule for compliance with Rule 406;
5. Within 45 days after the date of the Board's Order herein, the Petitioner shall execute and forward to the Illinois Environmental Protection Agency, Variance Section, 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 78-168 hereby accept said Order and agree to be bound to 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 21st day of September, 1978 by a vote of 4-0.

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