

ILLINOIS POLLUTION CONTROL BOARD
March 6, 1980

STAUFFER CHEMICAL COMPANY,)
)
 Petitioner,)
)
 v.) PCB 79-230
)
 ILLINOIS ENVIRONMENTAL PROTECTION)
 AGENCY,)
)
 Respondent.)

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

On November 6, 1979 Petitioner petitioned for a 5-year variance from Rules 203(f) and 402 [TDS] of the Board's water regulations and for a one-year variance from Rule 408(a) [TSS] of those regulations. On January 4, 1980 the Illinois Environmental Protection Agency (Agency) filed a recommendation of granting the variances given three conditions. The recommendation was based on the acceptability of the interim control methodology for removing TDS. (In R76-21, the Agency took the position that TDS effluent standards should be eliminated by the Board for this reason.

Petitioner owns and operates a chemical manufacturing and processing plant in Chicago Heights, producing sodium bicarbonate and various phosphates. Noncontact cooling water is drawn from wells owned by Petitioner and the City of Chicago Heights. This water is discharged to a storm water collection system after a flow of water distilled by a vacuum crystalizer operation is added. The entire discharge passes through an 84-inch storm sewer to the "State Street Ditch" in Chicago Heights, and ultimately to Thorn Creek, a general use water tributary to the Little Calumet River. The ditch also contains the discharge of a 36-inch City of Chicago storm sewer, which discharge is similar in quality, and the discharge of artificially-diverted Thorn Creek.

Of the approximately 1,000 gallons per minute (gpm), 1,440,000 gallons per day (1.44 MGD) discharge, half is from storm water runoff and half is from the noncontact cooling water. While Petitioner's NPDES Permit No. IL0035220 issued February 21, 1979 and amended August 17, 1979 (to expire March 31, 1981) allows for discharges of TSS up to 15 mg/l and TDS up to 1,000 mg/l, discharge monitoring reports show that Petitioner's discharges exceed the permit limitations. In PCB 79-65, Petitioner sought review of the 15-mg/l TSS NPDES permit limitation, (the same limitation found in Rule 408(a), but withdrew its petition for review.

Petitioner alleges that continued operation of the storm water collection system is necessary to prevent plant flooding and that continued discharge of the noncontact cooling water is necessary to prevent the plant from closing operations.

Petitioner's proposed compliance program is to install a pressure sand filter system of 1,000-gpm capacity. Petitioner proposes to monitor pH and TSS on daily basis to determine when diversion to an existing concrete setting basin is necessary. The discharge would be filtered by a vacuum filter with the sludge removed to an approved sanitary landfill. The filters would be cleaned by back washing into a receiving tank where a vacuum rotary filter would separate out dry sludge for disposal. The discharge from the vacuum filters would be monitored.

The agency agrees this is acceptable methodology for TSS compliance if the system is properly operated and maintained. The Agency, although agreeing that any interim TSS discharges will not cause harm to plant, animal or human life, recommends that TSS discharges not exceed 45 mg/l based on 30-day averages. Petitioner agrees to the 45 mg/l limitation but seeks base measurements on monthly averages of daily composite samples instead.

As to control methodology for reducing TDS emissions, Petitioner has agreed to continue its investigations of economically reasonable solutions and to keep the Agency informed yearly as to its findings. The Agency however, seeks this information at 6-month intervals. Both agree on the infeasibility of reverse osmosis, evaporation, and ion exchange.

The Agency also seeks to require that TDS effluent levels do not increase over their present levels. Petitioner has agreed to continue its improved housekeeping and management practices to avoid excursions above current levels to the extent possible. Petitioner has alleged and the Agency does not deny that the only reasonably available source of cooling water is the nearby wells which can contain TDS levels in excess of 1,500 mg/l. Petitioner, however, proposes to seek alternative sources of this cooling water, including Lake Michigan.

The Board grants the relief requested on the conditions that TSS concentrations shall not exceed 45 mg/l based on monthly averages of daily composite samples and that TDS concentrations not exceed present levels.

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

ORDER

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

1. Stauffer Chemical Company is granted variance from Rule 408(a) of the Board's Water Regulations to March 31, 1981 on the condition that TSS concentrations not exceed 45 mg/l based on monthly averages of composite samples taken daily which data shall be submitted to the Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, IL 62706;
2. Stauffer Chemical Company is granted variance from Rules 203(f) and 402 of the Board's Water Regulations to March 1, 1985 on the condition that TDS concentrations not exceed present levels; that new TDS treatment methodologies be studied and evaluated to the degree practicable and reports of findings made to the Illinois Environmental Protection Agency, at the address above given, annually beginning October 6, 1980; that TDS concentrations be monitored weekly in the State Street Ditch and monthly in Thorn Creek, with reports of findings made to the Illinois Environmental Protection Agency at the address above given; and
3. The Illinois Environmental Protection Agency is authorized to amend NPDES Permit No. IL035220 to include the terms of this Order.
4. Within 45 days of the adoption of this Order, the Stauffer Chemical Company shall execute and forward to the Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706 a certification of Acceptance and Agreement to be bound to all terms and conditions of this Order. The 45-day period shall be held in abeyance during any period this matter is being appealed. The form of said certification shall be as follows:

I (We), _____ having read and fully understanding the Order of the Illinois Pollution Control Board in PCB 79-230, hereby accept said Order and agree to be bound by all of the terms and conditions thereof.

SIGNED _____

TITLE _____

DATE _____

Mrs. Anderson abstains.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 6th day of March, 1980 by a vote of 4-0.

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