

ILLINOIS POLLUTION CONTROL BOARD
August 22, 1972

STANDARD OIL COMPANY (Indiana))
a corporation)
v.) PCB 72-107
ENVIRONMENTAL PROTECTION AGENCY)
)

Opinion and Order of the Board (by Mr. Dumelle)

This is a petition for variance requesting permission to divert the company's pretreated industrial waste from the City of Naperville North Sewage Treatment Plant into a 9.5 acre lake located on the company site until the new Springbrook sewage treatment plant, now under construction, is completed.

The City initially requested the company to make the diversion because the North Plant is hydraulically overloaded and in violation of the Illinois Water Quality Standards. The rated capacity of the plant is 750,000 gallons per day. Present flows arriving at the plant average about 1,100,000 gallons per day. The treatment plant effluent to the DuPage River has been averaging about 20 mg/l BOD₅ and 25 mg/l suspended solids. Diversion of the company's 250,000 gallons per day would reduce the BOD₅ and suspended solids levels in the treatment plant effluent by 25 to 50 per cent. During June 1972 the effluent has reached 30 mg/l of BOD.

The company operates a research center at the site which is entirely devoted to research and development in the areas of petrochemicals, fuels, lubricants and related functions. Three separate sewer systems are provided:

1. Storm sewers - draining into the lake on the site
2. Sanitary sewers - flowing directly to the North Sewage Treatment Plant
3. Industrial waste sewers - pretreated on the site and then flows to the North Plant.

The proposal here is only to re-route the industrial wastes to the company's lake. The sanitary sewage would still go to the North Plant. It is expected that the pretreated industrial waste effluent entering the lake will contain no more than 10 mg/l BOD₅ and 12 mg/l suspended solids. Rule 404(f) of the

Illinois Water Pollution Regulations (adopted March 7, 1972) provides in part that "on or after December 31, 1973, no effluent whose dilution ratio is less than one to one shall exceed 4 mg/l of BOD₅ or 5 mg/l of suspended solids..."

The company has an ongoing program to determine the type of wastes the various laboratories generate and insures that these contaminants are handled through the use of special containers rather than thru the sewer system. Waste collected in this manner is disposed of off the site by a scavenger. In addition, they propose to install inflatable sewer line plugs at strategic locations in the sewer system. If an accidental spill occurs, the plugs will be inflated immediately and then the sewer line will be pumped into barrels and/or a tank wagon thus never reaching the pretreatment facility or the lake.

Occasionally, during heavy rainfalls, the lake does overflow into the Illinois Tollway drainage ditch which runs east-west and is located just south of the lake. The overflow then travels thru culverts under the Tollway and empties into two large retention ponds. If the ponds become filled, the overflow would then travel west thru the Tollway drainage ditch. The overflow would eventually reach the West Avenue culvert and then would flow into a stone quarry located west of the Standard Oil property. Water from the quarry drains into the west branch of the DuPage River. The City and the company have agreed with the Tollway Authority that during rare cases when the water level in the Tollway drainage ditch is high enough to enter the culvert at West Avenue the effluent from the company's pretreating facility will be diverted from their lake back to the Naperville sewage treatment plant.

The Agency recommends that the variance be granted subject to the following conditions:

1. The effluent BOD and suspended solids shall not exceed 10 mg/l and 12 mg/l respectively to the Tollway ditch;
2. No renewal of the variance be granted beyond the date when the Springbrook sewage treatment plant becomes operational;
3. The company provide prompt and detailed reports on the occasion of each overflow, including amount, duration, test samples taken of water from the Tollway ditch, and other relevant information.

We agree with the Agency recommendation. We feel that the ecology of the area will be better served by the company's proposal than by continuing the overloaded condition of the existing sewage treatment plant. The only additional condition which we will impose is that the level of inorganic suspended solids discharged to the Tollway ditch shall not exceed 100 mg/l.


This opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

The petition for variance is granted subject to the following conditions:

1. The effluent BOD and suspended solids shall not exceed 10 mg/l and 12 mg/l respectively to the Tollway ditch;
2. No renewal of the variance be granted beyond the date when the Springbrook sewage treatment plant becomes operational;
3. The company provide prompt and detailed reports on the occasion of each overflow, including amount, duration, test samples taken of water from the Tollway ditch, and other relevant information.
4. The level of inorganic suspended solids discharged to the Tollway ditch shall not exceed 100 mg/l as a monthly average.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 22nd day of August, 1972 by a vote of 5-0.


Christan L. Moffett, Clerk
Illinois Pollution Control Board