

ILLINOIS POLLUTION CONTROL BOARD
December 13, 1979

VILLAGE OF HOMEWOOD,)
)
) Petitioner,)
)
) v.) PCB 79-133
)
) ENVIRONMENTAL PROTECTION AGENCY,)
)
) Respondent.)

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

Petitioner is seeking a variance from Rules 401, 402, 404, 405, and 406 of Chapter 3: Water Pollution for the discharge from its sewage treatment facilities into Butterfield Creek. The Agency recommended that a variance be granted. No hearing was held.

Petitioner has been unable to comply with the provisions of NPDES Permit No. IL0029211 for several reasons. Hydraulic overloads due to high inflow and infiltration in Petitioner's collection system have interfered with the sewage treatment plant's ability to remove BOD₅ and suspended solids. Present facilities have never incorporated ammonia reduction. Limitations on chlorine residual and fecal coliform bacteria are violated because of failures of chlorination equipment and inadequate contact time. Petitioner has also asked for a variance from its present NPDES requirement to monitor influent.

Petitioner has completed a Step 1 facilities plan under its construction grant which will not be approved until a sewer system evaluation survey (SSES) is completed.

Petitioner's sewage facilities handle domestic sewage from a population of approximately 20,000. Present facilities include primary treatment, then secondary treatment split between activated sludge and trickling filter processes, followed by finishing ponds and chlorination. These facilities are designed to treat 3.5 million gallons per day (MGD). Flows in excess of 4.5 MGD receive primary treatment and chlorination with reduced contact time. When flow reaches 10.5 MGD bypassing occurs. During periods of little or no inflow into the collection system, the average flows do not exceed design capacity. During March of 1979 a flow of 14.234

MGD was recorded. From August 1978 until April 1979 the design flow was exceeded on about 46.1% of the days in that period. Effluent concentrations of BOD₅ exceeded 10 mg/l on 55% of the days sampled but did not exceed 30 mg/l. Effluent concentrations of suspended solids exceeded 12 mg/l on 33% of the days sampled and exceeded 30 mg/l on 2.4% of the days sampled. Mass limitations in Petitioner's NPDES permit are exceeded more frequently due to excess flows. Nitrification occurs in the activated sludge portion of Petitioner's plant only when conditions are favorable.

Petitioner plans to correct its violations through completion of its SSES followed by either upgrading of its facilities with construction grant funding or diversion of flows to the Metropolitan Sanitary District of Greater Chicago (MSD). Presently Petitioner plans to complete the SSES in December, 1980 and make its decision on upgrading and diversion in January, 1981. Petitioner's sewer system will not be rehabilitated and diversion to MSD could not occur until December, 1981. If Petitioner's treatment facilities are upgraded, improvements could not be completed until May, 1984. The total costs for either of these alternatives is expected to range from \$6.4 million to \$8.5 million.

Petitioner predicts no change in the present condition of Butterfield Creek, described as "fair", if a variance is granted. Petitioner points to plant improvements since August, 1977 and increases in operation and maintenance budgeted expenses as evidence that its present inadequate facilities are being operated at optimum efficiency.

Petitioner feels that any more locally funded interim improvements, such as \$600,000 capital costs for breakpoint chlorination for ammonia removal, would constitute undue hardship. Petitioner feels its resources will be better spent pursuing long range solutions.

Petitioner has requested the following interim effluent limitations during the variance:

	<u>7 day average</u>	<u>30 day average</u>
BOD ₅	2200 lbs. (1000 kg)/day (30 mg/l)	1540 lbs. (700 kg)/day (30 mg/l)
suspended solids	2200 lbs. (1000 kg)/day (30 mg/l)	1540 lbs. (700 kg)/day (30 mg/l)
Flow		9.0 MGD
Chlorine residual		0.2 - 0.75 mg/l

Fecal Coliform - unlimited when flow exceeds 4.5 MGD and
400/100 ml at other times.

Ammonia nitrogen - 25 mg/l at all times

No influent reporting requirements.

The interim relief from BOD₅, suspended solids, flow, and chlorine residual would be necessary only when the average monthly flows exceed 3.5 MGD, daily flows exceed 7.0 MGD or mean monthly temperatures are below 1°C.

Petitioner has been negotiating with MSD on diversion since September of 1977 when it decided that this alternative was its best long range solution. The areawide water quality management plan prepared by the Northeastern Illinois Planning Commission concurs in this decision. Issues related to a pre-annexation agreement with MSD presently remain unresolved. Petitioner feels it cannot complete its negotiations until the SSES is completed. In an Amended Recommendation the Agency has asked that a variance be granted until January 1, 1981 or until the SSES is complete, whichever occurs first. The Agency concurs with Petitioner's requested interim effluent limitations but has indicated that no variance is needed to drop the NPDES requirement that influent be monitored.

The Board's Water Pollution regulations were adopted in 1972. The record in this matter is silent on the critical issue of why Petitioner's sewage collection and treatment problems have lingered for over seven years with another two to five years needed to rectify the situation. In EPA v. Village of Homewood, PCB 76-320, 26 PCB 49, June 28, 1977, the Board accepted a stipulation which provided, inter alia, that Petitioner would submit a facilities plan to the Agency by June 30, 1977. Once again the question remains as to why this five year delay? In this matter, Petitioner states that it has never provided nitrification with no explanation why the ammonia nitrogen water quality standard of Rule 203(f) was ignored. The Board cannot quarrel with Petitioner's estimated costs if it is required to proceed now with local funding for needed improvements. The problem remains that Petitioner has not shown why this hardship should not be construed as self-imposed. If Petitioner is inclined to provide this information in a future variance petition, it should feel free to do so. At this point the Board sees no alternative to denying relief.

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

ORDER

Petitioner's request for a variance from Rules 401, 402, 404, 405 and 406 of Chapter 3: Water Pollution is hereby denied.

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 13th day of December, 1979 by a vote of 4-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board