

ILLINOIS POLLUTION CONTROL BOARD
March 21, 1984

THE METROPOLITAN SANITARY DISTRICT)
OF GREATER CHICAGO,)
)
Petitioner,)
)
v.) PCB 84-16
)
ILLINOIS ENVIRONMENTAL PROTECTION)
AGENCY,)
)
Respondent.)

OPINION AND ORDER OF THE BOARD (by B. Forcade):

This matter comes before the Board upon a February 9, 1984 petition for variance filed by The Metropolitan Sanitary District of Greater Chicago ("Sanitary District"). The petition seeks a variance from the effluent standard for fecal coliform in 35 Ill. Adm. Code 302.406 and the water quality standards of 304.121. The variance would apply to the Sanitary District's Calumet, Northside, West-Southwest and Lemont sewage treatment plants. Each of these plants discharge into secondary contact waters and each is equipped with chlorination facilities. On March 15, 1984 the Sanitary District filed a motion to expedite Board decision on the grounds that contractual commitments would be required to be made on March 22, 1984. That motion is hereby granted.

HISTORY

Calumet Plant

The Calumet Sewage Treatment Works is located at 400 E. 130th Street, Chicago, Illinois and discharges 220 MGD to the Little Calumet River. This plant has been operating without chlorinating its effluent since the Board issued a variance on July 14, 1983 (PCB 83-72). The variance was for the period from August 1, 1983 to March 31, 1984.

In this petition, the Sanitary District requests a variance covering the period from April 1, 1984 to December 31, 1984.

During 1981 when the rule changes in R 77-12, Docket D, were pending in the Illinois Pollution Control Board, the Calumet Sewage Treatment Works was approved by the United States Environmental Protection Agency and the Illinois Environmental Protection Agency for a 180 million dollar expansion program under Contract 77-284-2P and other related contracts. During this project the regular chlorination units will have to be taken out of service

for approximately 100 days. Temporary arrangements for chlorination will have to be made during the interim unless a variance is granted. The contract for the work provides that the contractor is to provide interim chlorination if necessary. The contract price is to be reduced by \$8,400 per day if chlorination is not required. This could amount to as much as \$840,000 over 100 days (PCB 83-72).

In July, 1983, the Sanitary District notified the contractor that the Board had granted the variance and directed the contractor to submit the date when the bypass of the chlorine contact tank would begin. At the time of the filing of this petition the contractor had not yet begun the initial bypass (Pet. p. 5).

West-Southwest Plant

The West-Southwest Sewage Treatment Works is located at 5901 W. Pershing Road, Stickney, Illinois. The plant has a design capacity of 1,200 MGD and discharges into the secondary contact waters of the Chicago Sanitary and Ship Canal. In this petition, the Sanitary District requests a variance covering the period from April 1, 1984 to December 31, 1984.

By a letter dated January 20, 1984, K.A. Steel advised the District that it would be removing a tank leased to MSD for the storage of sodium hypochlorite at the West-Southwest STW. The letter advised that K.A. Steel had other requirements for that tank and would remove it during the last week of January, 1984. The tank in question had been utilized by the contractor and the Sanitary District for the storage of chemicals necessary to chlorinate the effluent discharge from the treatment works. On January 30, 1984, K.A. Steel removed the tank, forcing the Sanitary District to use another tank on that location for emergency storage of sodium hypochlorite (Pet. p. 6).

Lemont Plant

The Lemont Sewage Treatment Works is located at 13 River Street, Lemont, Illinois. The plant has a design capacity of 1.6 MGD and discharges into the secondary contact waters of the Chicago Sanitary and Ship Canal. In this petition, the Sanitary District requests a variance covering the period from April 1, 1984 to December 31, 1984 (Pet. p. 7).

Northside Plant

The Northside Sewage Treatment Works is located at 3500 West Howard Street, Skokie, Illinois. The plant has a design capacity of 333 MGD and discharges into the secondary contact waters of the North Shore Channel. In this petition, the Sanitary District requests a variance covering the period from April 1, 1984 to December 31, 1984 (Pet. p. 7).

FACTS

This variance request is unique because of the appeal status of the Board's effluent and water quality regulations pertaining to fecal coliform. Prior to November of 1982, 35 Ill. Adm. Code 304.121 limited effluent fecal coliform to 400 per 100 ml. Further, those effluents could not cause or contribute to violation of the secondary contact and indigenous aquatic life water quality standard of Section 302.406. In R 77-12, Docket D, October 14, 1982, 6 Ill. Reg. 13750, November 4, 1982, the Board revised fecal coliform regulations, deleting the secondary contact fecal coliform water quality standard and modifying the effluent standard. On November 16, 1982 the Attorney General of Illinois filed an appeal in the First District Court of Appeals, People v. Illinois Pollution Control Board, 456 N.E. 2d 909. At the Attorney General's request the First District issued a stay of the Board's Order on February 1, 1983. On November 15, 1983, the First District rendered its decision, affirming in part, reversing in part the Board's Order. On January 31, 1984, the Illinois Supreme Court granted the Illinois Environmental Protection Agency ("Agency") leave to appeal, which stays entry of the mandate of the First District. Thus, the First District's February 1, 1983 stay order remains in effect as do the Board's old fecal coliform regulations.

In R 77-12, Docket D the Board deleted the fecal coliform water quality standard for secondary contact and indigenous aquatic life waters. The First District affirmed that action:

"The only waters in Illinois designated by the Board as 'secondary contact and indigenous aquatic life waters' are those waters into which the Metropolitan Sanitary District discharges its effluents. (35 Ill. Adm. Code sec. 303.441.) The Attorney General does not dispute this designation. In secondary contact waters, 'contact with the water is either incidental or accidental and *** the probability of ingesting appreciable quantities of waters is minimal, ***.' (35 Ill. Adm. Code sec. 301.380.) The Attorney General has not argued and we find no evidence in this record that the deletion of fecal coliform as a water quality standard for secondary use will affect the purposes for which secondary waters are used. Consequently we find no error in that portion of the Board's order which repealed section 302.406, the fecal coliform indicator for secondary contact and indigenous aquatic life waters. As a result of this conclusion, disinfection of fecal coliform bacteria will no longer be required of secondary contact and indigenous aquatic life waters." Supra, at 912-913.

That portion of the First District's decision which affirmed deletion of the secondary contact fecal coliform standard has not been challenged in the Supreme Court. However, that standard remains in effect as a result of the stay. The First District reversed the Board's decision to modify the fecal coliform effluent standard of Section 304.121.

ENVIRONMENTAL CONSEQUENCES

To support its variance petition, the Sanitary District prepared a report on fecal coliform densities downstream of the discharges from the four facilities subject to this variance (Ex. 1). That report compared fecal coliform densities when all four plants were chlorinating with periods when three were chlorinating but Calumet was not. That report, and an additional report prepared by Dr. Charles N. Haas of the Illinois Institute of Technology (Ex. 2) conclude there is no statistically significant difference in downstream fecal coliform values, with or without chlorinating except in the immediate proximity of the discharge. Additionally, there was testimony that residual chlorine may harm downstream aquatic life.

HARDSHIP

In the absence of a variance the Sanitary District must contract not later than March 31, 1984 for additional chlorination supplies estimated to cost \$1.6 million (Pet. ¶ 7). Additionally, the Calumet plant is undergoing expansion which requires bypassing the chlorine contact tank (Pet. p. 8, ¶ d) and the West-Southwest plant has been forced to replace a leased sodium hypochlorite storage tank with an emergency storage tank (Pet. p. 6, ¶ c). These alterations in the chlorination process may present hazards to contractors and employees that would be eliminated or minimized by this variance.

CONCLUSION

Due to judicial approval of the concept of deleting chlorination for secondary contact waters, the weight of evidence showing no downstream increase in fecal coliform, and the financial and safety hardship from continued chlorination the Board finds that the denial of variance would impose an arbitrary or unreasonable hardship. The Board will grant the 9 month variance requested by the petitioner, on the assumption that the additional year variance recommended by the Agency is merely a typographical error.

The Board notes, however, that this variance may not have been needed if the Sanitary District had moved the Supreme Court to modify the First District's stay order for those issues not being challenged in the Supreme Court.

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

ORDER

The Metropolitan Sanitary District of Greater Chicago is hereby granted a variance from 35 Ill. Adm. Code 302.406 and 304.121, subject to the following conditions:

1. The variance shall expire on December 31, 1984.
2. The variance shall apply only to sewage treatment plant discharges from the Calumet, Northside, West-Southwest and Lemont sewage treatment plants.
3. During the period of this variance, Petitioner shall conduct water quality monitoring to determine the impact of the cessation of chlorination, specifically including monitoring at Locport and Morris three times per week.
4. Petitioner shall make the results of all sampling available to the Agency.
5. Within 45 days of the date of this Order, The Metropolitan Sanitary District of Greater Chicago shall execute a Certificate of Acceptance and Agreement to be bound to all terms and conditions of the variance. Said Certification shall be submitted to the Agency at 2200 Churchill Road, Springfield, Illinois 62706. The forty-five day period shall be held in abeyance during any period that this matter is being appealed. The form of the certificate shall be as follows:

CERTIFICATE

I, (We), _____, having read the Order of the Illinois Pollution Control Board in PCB 84-16, dated March 21, 1984, understand and accept said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

Petitioner

Authorized Agent

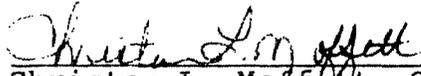
Title

Date _____

IT IS SO ORDERED.

Board Chairman J.D. Dumelle concurred.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 21st day of March, 1984 by a vote of 6-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board