

ILLINOIS POLLUTION CONTROL BOARD
June 18, 1976

VILLAGE OF TOWER HILL,)
)
 Petitioner,)
)
 v.) PCB 76-101
)
 ENVIRONMENTAL PROTECTION AGENCY,)
)
 Respondent.)

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

This matter comes before the Board on the petition of the Village of Tower Hill filed April 14, 1976 seeking variance from Rules 203(c) and 402 of Chapter 3: Water Pollution Rules and Regulations as regards phosphorus. On May 19, 1976, the Agency filed a Recommendation in this matter; no hearing was held.

The Village of Tower Hill is located in Shelby County and has a population of 683 people. At the present time the Village has no collection system or municipal sewage treatment facilities. Sewage treatment currently consists of individual septic tanks and tile fields. The Village is presently awaiting Agency approval of its Step I Facilities Plan for the construction of a sanitary sewage system and waste treatment facilities.

The proposed treatment facilities are designed to receive an average flow of .08 MGD and consist of a three-cell lagoon with diffused aeration, submerged sand filter, and chlorination. The discharge from the proposed facility will be tributary to Mitchell Creek, a tributary of the Kaskaskia River which is tributary to the Carlyle Reservoir.

Rule 203(c) sets a standard of 0.05 mg/l for phosphorus as P in any reservoir or lake, or in any stream at the point where it enters any reservoir or lake and Rule 402 requires that the Village's effluent not contribute to a violation of the Rule 203(c) water quality standard. The phosphorus concentration in the Kaskaskia River as it enters the Carlyle Reservoir presently exceeds .05 mg/l; therefore, the Village's effluent is water quality limited to the Rule 203(c) standard of .05 mg/l phosphorus. If the Village's proposed treatment facility does not meet the .05 mg/l standard of Rule 203(c), the Agency cannot issue a construction permit unless the Village first obtains a variance from the Board.

In order to meet the 203(c) standard, the Village would have to install phosphorus removal facilities estimated to cost \$118,000.00 with a yearly maintenance cost of \$2,500.00. The Village has also considered two other alternatives to phosphorus removal. Under one alternative the feasibility of discharging the effluent in the adjacent Sangamon Watershed was studied. Approximately 8 miles of force main would be required for this alternative with the project estimated to cost nearly \$450,000.00. The other alternative considered is the disposal of the effluent on land through an irrigation system. This alternative is estimated to cost \$205,000.00 with annual operating costs estimated to be nearly \$13,000.00. The Village alleges that an arbitrary and unreasonable hardship would be placed on the Village if it were required to use any of these methods to control their phosphorus discharge and, therefore, seeks this variance so that the proposed treatment plant can be installed with the help of State/Federal grant funds.

The Agency submits that the average phosphorus concentration of normal domestic sewage is approximately 10 mg/l; therefore the Village's proposed facility will discharge approximately 6.7 lbs/day phosphorus. In the USEPA National Eutrophication Survey Report on Carlyle Reservoir an annual total phosphorus loading of 698,050 lbs/year to Carlyle Reservoir is estimated. Based on this data, the Village's proposed treatment plant would result in only a 0.34% increase in phosphorus loading.

On January 5, 1976, the Agency filed a Petition for Regulatory Change (R76-1) with the Board which would amend the Regulations by requiring only point sources who have 1500 or more population equivalent to treat wastewater to a level not to exceed 1 mg/l phosphorus prior to discharge. As justification for this proposal the Agency submits that eutrophication studies by both the USEPA and the Illinois State Water Survey show that the contribution of point source dischargers to the total phosphorus problem of lakes and reservoirs is small compared to the non-point source contribution. The Agency submits that non-point sources, such as run-off waters from farm lands fertilized with phosphate base fertilizers, account for the overwhelming majority of the phosphorus loading of most lakes and reservoirs.

The Village alleges that they will suffer an unreasonable hardship if the Board denies this variance request, a denial which would prevent the Village from utilizing State/Federal grant funds to assist in the construction of a much needed sewage treatment plant. In light of aforesaid studies and the small contribution that the Village's discharge will make to the Carlyle Lake phosphate problem, the Board is disposed to grant the relief requested. The Board will require, however, that the Village design and construct the sewage treatment plant to allow for the possible future installation of appropriate phosphorus removal facilities.

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

ORDER

The Village of Tower Hill is granted a variance from the phosphorus limitations of Rules 203(c) and 402 of Chapter 3: Water Pollution Regulations until June 1, 1981, subject to the following conditions:

1. This variance will terminate upon adoption by the Board of any modification of the existing phosphorus water quality standards and effluent limitations and the Village of Tower Hill shall comply with such revised regulations when adopted by the Board.

2. The sewage treatment plant shall be designed and constructed to allow for the possible future installation of appropriate phosphorus removal facilities, and

3. Within 35 days of the date of this Order, Petitioner shall submit to the Manager, Variance Section, Division of Water Pollution Control, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois, 62706, an executed Certification of Acceptance and agreement to be bound to all terms and conditions of the variance. The form of said certification shall be as follows:

CERTIFICATION

I, (We), _____ having read the Order of the Pollution Control Board in PCB 76-101, understand and accept said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.


SIGNED

TITLE

DATE

IT IS SO ORDERED.

I, Christian L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 18th day of June, 1976 by a vote of 5-0.



Christian L. Moffett, Clerk
Illinois Pollution Control Board