

ILLINOIS POLLUTION CONTROL BOARD
December 2, 1976

VILLAGE OF BETHANY,)
)
 Petitioner,)
)
 v.) PCB 76-230
)
 ENVIRONMENTAL PROTECTION AGENCY,)
)
 Respondent.)

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

This matter comes before the Board on a variance petition filed September 10, 1976, by the Village of Bethany seeking relief from Rules 203(c) and 402 of Chapter 3: Water Pollution Rules and Regulations as those rules apply to phosphorus. The Agency filed a Recommendation on November 5, 1976; no hearing was held in this matter.

The Village of Bethany is located in Moultrie County and has an existing sewage collection system and a treatment facility consisting of a contact stabilization plant, polishing lagoon and chlorination; the treatment facility is not capable of meeting existing effluent standards (Pet. 1). Petitioner has developed a facilities plan under a Step 1 grant to upgrade the existing facilities by the addition of ammonia nitrogen removal and mechanical filtration processes (Pet. 2) and the final effluent, after chlorination, will be discharged to an unnamed tributary of Marrowbone Creek which is tributary to Lake Shelbyville (Pet. 3). Marrowbone Creek has a 7-day 10-year low flow of zero; Petitioner discharges approximately one mile upstream from the point where the stream enters Lake Shelbyville (Rec. 2).

The proposed facility has a design average flow of 0.20 MGD and there are approximately 1300 persons within the area to be served by the projected improvements to the treatment works which are expected to be completed by March 15, 1979 (Pet. 2, 4). Capital cost of the proposed treatment plant improvements is \$437,000.00 (Pet. 6). Land application was investigated by Petitioner as an alternative means of disposal, however, the estimated capital cost of \$957,000.00 and significantly increased annual operating and maintenance costs precluded further consideration of land application as a viable treatment alternative for the Petitioner (Pet. 6, 7).

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 effluent not contribute to a violation of the Rule 203(c) water quality standard. The phosphorus concentration in Marrowbone Creek as it enters Lake Shelbyville presently exceeds .05 mg/l; therefore, the effluent is water quality limited to the Rule 203(c) standard of .05 mg/l phosphorus. If the proposed treatment facility does not meet the .05 mg/l standard of Rule 203(c), the Agency cannot issue a construction permit or award a construction grant unless the Village first obtains a variance from the Board.

The Village alleges that there is no technically feasible method of attaining the phosphorus standard for its discharge (Pet. 8). Furthermore, while the Village did consider pumping the effluent into an adjacent watershed as well as land application, these alternatives were considered impractical for economic reasons (Pet. 7, 8).

Survey data from the USEPA National Eutrophication Survey indicates that the total loading from the Bethany wastewater treatment facility contributes 0.5% of the total phosphorus loading to Lake Shelbyville and that no nuisance conditions were observed during the survey. Lake Shelbyville is not utilized as a public water supply but is used for flood control and recreation (Pet. 3, 4).

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 prior to discharge. As justification for this proposal the Agency submits that eutrophication studies by both the United States Environmental Protection Agency 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 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 denial of this variance would prevent the Village from utilizing State/Federal grant funds to assist in the construction of a much needed sewage treatment plant. Balancing this hardship with the small contribution the discharge will make to the Lake Shelbyville phosphorus problem leads the Board to believe

that the Village is entitled to relief. 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 Bethany is granted a variance for the operation of its proposed sewage treatment plant from Rules 203(c) and 402 of Chapter 3: Water Pollution Regulations as regards phosphorus until December 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 Bethany 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.

3. Within 35 days of the date of this Order, the Village of Bethany 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 76-230, 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, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 2ND day of December, 1976 by a vote of 4-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board