

ILLINOIS POLLUTION CONTROL BOARD
August 5 , 1976

VILLAGE OF ROSSVILLE,)	
)	
Petitioner,)	
)	
v.)	PCB 76-142
)	
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 Rossville filed May 13, 1976 seeking variance from Rules 203(c), 402 and 404(f) of Chapter 3: Water Pollution Rules and Regulations as regards phosphorus. The Agency filed a Recommendation on June 29, 1976; no hearing was held in this matter.

The Village of Rossville is located in Vermilion County with a population of approximately 1,500 persons. At the present time the Village has a combined sewer system which collects both storm and sanitary wastes, but because the Village does not have a sewage treatment plant, these wastes are discharged untreated into the North Fork of the Vermilion River, which is tributary to Lake Vermilion. In May, 1975, the Village was offered a Step I grant by the Agency for the preparation of a Facilities Plan. This Facilities Plan, which anticipates the use of either an oxidation ditch or aerobic-anaerobic lagoons for the proposed treatment plant, was submitted to the Agency in February, 1976, and the Village is awaiting Agency approval thereof.

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 North Fork of the Vermilion River as it enters Lake Vermilion 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 \$52,000.00 (oxidation ditch) or \$73,000.00 (aerobic-anaerobic lagoon) with yearly maintenance costs of \$20,000.00 and \$29,000.00 respectively. Even with this phosphorus removal equipment, however, the Village alleges the effluents will not comply with the 0.05 mg/l phosphorus standard. Pumping the effluent into an adjacent watershed and land application were also considered, but these alternatives were also found undesirable for economic reasons.

The Village alleges that the removal of phosphorus from the treatment plant's effluent would have either little, or at most an insignificant, effect on the water quality of the North Fork of the Vermilion River or Lake Vermilion. This allegation is based on the fact that the median phosphorus concentration in the North Fork is lower downstream (0.200 mg/l) from the Village than upstream (0.440 mg/l). As the Agency points out, however, while the concentration of phosphorus is less downstream, there is a substantial increase in total phosphorus being carried by the stream due to the increased flow volume found to exist downstream. The fall in phosphorus concentration is unexplained; the Agency suggests that the phosphorus most likely is carried by bottom sediments into the Lake (R. p6) in which case it would not be measured by upper water sampling. Total phosphorus loading to the Lake is estimated to be 31,066 kilograms, of which the Agency estimates 2,381 kilograms (7.7%) is discharged from the Village. The Board does not consider this to be an insignificant amount.

The Village alleges 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. The Board also notes that 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 of 1500 or more population equivalents 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.

In view of these considerations the Board believes the Village is entitled to 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 appro-

priate phosphorus removal facilities. Because the Village plans to apply for a Pfeffer exemption, the Board will also grant a variance from Rules 404(f)(ii)(A) and 404(f)(ii)(D) as those rules apply to phosphorus. While the Agency submits that this relief is not needed because Rule 409 (Delays in Upgrading) provides the Village with the same relief until July 1, 1977, the Board does not agree. Rule 409 provides relief until July 1, 1977 from effluent standards but does not apply in situations in which the discharge is water quality limited.

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

ORDER

The Village of Rossville is granted a variance for the operation of its proposed sewage treatment plant from the phosphorus limitations of Rules 203(c), 402, 404(f)(ii)(A) and 404(f)(ii)(D) of Chapter 3: Water Pollution Regulations until August 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 Rossville 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, the Village of Rossville 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 76-142, 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 5th day of August, 1976 by a vote of 5-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board