

ILLINOIS POLLUTION CONTROL BOARD  
January 21, 1981

VILLAGE OF LENA, )  
 )  
 ) Petitioner, )  
 )  
 ) v. ) PCB 81-162  
 )  
 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
 ) Respondent. )

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

The Village of Lena (Village) filed a petition for variance on October 19, 1981, requesting relief from effluent limitations in its NPDES permit for its wastewater treatment plant (WTP). An amended petition was filed on November 5, 1981, and the Illinois Environmental Protection Agency (Agency) filed its recommendation that the variance be granted to the extent allowed by federal law and subject to certain conditions. This recommendation was accompanied by a motion to file instant, which motion is hereby granted. Hearing was waived and none was held.

The Board in general will not order modification of NPDES permit conditions in a variance proceeding. However, it will construe the variance as requesting relief from Rule 404(c) of Chapter 3: Water Pollution, as it relates to five-day biochemical oxygen demand (BOD<sub>5</sub>) and total suspended solids (TSS).

The Village owns and operates a WTP which serves approximately 2,000 persons and became operational in July, 1975. It consists of a raw sewage inlet structure with a flow meter, two primary clarifiers, one single stage rotary distributor trickling filter, one secondary clarifier, one effluent holding lagoon, four moving bed filters, one chlorinator, two anaerobic digesters, and two sludge drying beds. Plant design is for 3,600 P.E. and 0.4 million gallons per day (MGD). Discharge is to an unnamed tributary of Yellow Creek, which in turn is tributary to the Pecatonica River. Actual discharge has averaged about 0.2 MGD.

Agency inspection reports dating back to April 12, 1976 indicate problems with the moving bed filters. Operation of these filters is initiated by two 160 gallon per minute lagoon pumps which take suction from the lagoon and pump the water to the influent chamber. Flows then enter a mixing chamber where polymer and alum are added and mixed before the flow enters the moving bed filter. Through a series of pumps, the dirty filter sand is cut off the face of the filter, washed and replaced in the filter bed. This entire process is automatic. Prior to the

Village's removal of the moving bed filters from operation on or about June 5, 1981, only the two west filters were in operation because parts from the two east filters were being used to keep the west units in operation. This was done in conjunction with the filing of a lawsuit against the manufacturer of the moving filter bed and the contractor. That lawsuit was settled in August, 1981, but the record does not indicate whether the beds are now in operation.

The Village was issued NPDES Permit No. IL0024945 on June 9, 1977, with an expiration date of February 1, 1982, which requires the Village to meet the following effluent limitations:

<u>Parameter</u>	<u>30 Day Avg.</u>	<u>7 Day Avg.</u>
BOD <sub>5</sub>	10	15
TSS	12	18

The Village is also required to monitor and report to the Agency regarding BOD<sub>5</sub> and TSS effluent concentrations. The most recent reports are summarized below:

<u>Month</u>	<u>Flow (MGD)</u>		<u>BOD<sub>5</sub> (mg/l)</u>		<u>TSS (mg/l)</u>	
	<u>Avg.</u>	<u>Max.</u>	<u>Avg.</u>	<u>Max.</u>	<u>Avg.</u>	<u>Max.</u>
June, 1981	0.19	0.245	15	21	17	25
May, 1981	0.215	0.285	18	20	14	19
April, 1981	0.21	0.29	29	31	34	36
March, 1981	0.2	0.33	22	--	12	--
February, 1981	0.205	0.3	45	--	26	--
January, 1981	0.2	0.295	23	--	18	--

Improvements to the Village's facility, including the moving bed filters, were constructed pursuant to funding under the construction grants program. While construction was completed some time ago, final payment has not been made because of problems with the moving bed filters. The United States Environmental Protection Agency (USEPA) has initiated a study to determine the feasibility of repairing the moving bed filters. It is not known whether this study has been completed. If repair is not possible, the Village will have to go back into Step 2 of the grants program for design of new tertiary treatment facilities. Currently, the Village's priority number is such that funds for Steps 2 and 3 would not be available; however, it is felt that due to the nature of the Village's problem special consideration could be made.

The Agency argues that the Board is powerless to grant a variance in this case including BOD<sub>5</sub> and TSS limitations in excess of 30 mg/l in that these limitations are federally mandated by Section 301(b)(1)(B) of the Federal Water Pollution Control Act (FWPCA) and 40 CFR Section 133.102(a) and (b), and that the State is bound by them. While it is possible for the Village to be exempted from these standards by Section 301(i)(1) of the FWPCA, and it has made a timely application for such exemption, the Agency alleges that no such exemption

can be granted until a determination is made that the corrective measures necessary for compliance are grant eligible. That determination, however, has not been made.

The Board need not decide whether the Agency's interpretation of the FWPCA sections is correct in this case, however, in that the Village's discharge data indicate that the granting of 30 mg/l limitations for BOD<sub>5</sub> and TSS should be sufficient to place the Village in substantial compliance.

The Village presents several alternative solutions to its filter bed problem if repair is not possible, but has not yet decided what course to follow and exact costs cannot be calculated. However, the Village's estimate of \$1,242,200 is reasonable according to personnel from the Agency's Grant Administration Section. The Village's share of this cost would be \$310,550 if a 75% share is grant-funded, or \$186,300 if an 85% share is grant-funded, depending upon whether it is considered a failure of a unique technology. Were it possible to renovate the existing moving bed filters, the Agency estimates that the cost of compliance would be considerably less; perhaps in the \$120,000 range, but this amount would not be grant eligible.

The Board finds that denial of the requested variance would constitute a financial hardship, and since the Agency has found no stream degradation due to the Village's discharge, this hardship would be arbitrary and unreasonable.

The Village requests variance until grant funds are made available and tertiary treatment facilities are constructed. However, such construction may not be necessary. Further, if it is necessary there is no showing that they will be completed within five years which is the maximum variance period. Therefore, the Board will follow the Agency's recommendation and grant variance until March 1, 1984.

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

#### ORDER

1. The Village of Lena is hereby granted a variance from Rule 404(c) of Chapter 3: Water Pollution, subject to the following conditions:

a. This variance shall expire on March 1, 1984, or upon attaining operation of any new tertiary treatment facility, or upon attaining operation of renovated moving bed filters, whichever occurs first;

b. In the event that the USEPA study concludes that renovation of the moving bed filters is possible, the Village shall expeditiously undertake all actions necessary to achieve such renovation;

c. During the period of this variance, the Village's effluent shall not exceed 30 mg/l BOD<sub>5</sub> or 30 mg/l total suspended solids as a monthly average.

d. The Village shall provide the best practicable operation and maintenance at its WTP.

2. The Illinois Environmental Agency shall modify the Village's NPDES Permit No. IL0024945 in a manner consistent with this Order pursuant to Rule 914 of Chapter 3.

CERTIFICATE

I, (We), \_\_\_\_\_, having read the Order of the Illinois Pollution Control Board in PCB 81-162 dated January 21, 1982, understand and accept the said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

\_\_\_\_\_  
Petitioner

\_\_\_\_\_  
By: Authorized Agent

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 21<sup>ST</sup> day of January, 1981 by a vote of 4-0.

Christan L. Moffett  
Christan L. Moffett, Clerk  
Illinois Pollution Control Board