

ILLINOIS POLLUTION CONTROL BOARD
June 14, 1973

GALESBURG SANITARY DISTRICT)
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 v.) PCB73-86
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 ENVIRONMENTAL PROTECTION AGENCY)
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OPINION AND ORDER OF THE BOARD (by Mr. Dumelle)

Petitioner requests a variance from all applicable stream and effluent standards of the Water Pollution Regulations of Illinois for a one-year period, to be extended until July 1, 1977. Implicit in the petition is a request to be exempted from the Permit and Project Completion Schedule filing requirements of Rules 921(d) and 1002. Hearing was held on May 2, 1973.

Petitioner owns, operates, and controls a sewage treatment plant and sewage transport system serving the entire City of Galesburg and certain surrounding unincorporated areas. The majority of the area within the District is served by separate storm and sanitary sewage systems, though combined sewers still serve certain areas. The treatment plant provides secondary treatment by means of the trickling filter process. Chlorinated plant effluent is discharged to Cedar Fork Creek, which affords a dilution ratio of less than one to one.

Grab samples of the plant effluent taken by the Agency during 1972 show BOD at 34, 23, 16, 15, 11 and 10 mg/l; suspended solids at 14, 10, 23, 1, 6, and 12 mg/l and ammonia nitrogen at 7.2, 2.5, 2.0, 1.0 and 5.8 mg/l. The District monthly operational reports for 1972 show BOD ranging between 5 and 29 mg/l and suspended solids between 12 and 29 mg/l. The Agency believes that the plant is well operated and that the effluent has little or no adverse effect on Cedar Fork Creek.

Since Cedar Fork Creek provides a dilution ratio of less than one to one, Petitioner must comply with the BOD standard of 4 mg/l and the suspended solids standard of 5 mg/l by December 31, 1973. Petitioner anticipates that adequate BOD and suspended solids removal will be accomplished in conjunction with the process of ammonia removal. The District contends that reduction in effluent ammonia

concentrations and compliance with the Rule 203(f) standard of 1.5 mg/l will be possible upon construction of proposed upgraded treatment facilities. Ammonia reduction is said to be possible by supplementing the trickling filter process with an activated sludge unit (for nitrification) followed by multimedia filtration and break point chlorination. The District further maintains that a pilot plant study is an essential prerequisite to insure the proper physical and economic design of an ammonia removal process. Design and operation of the proposed pilot plant would require a one-year period.

In 1967 Petitioner began to expand and upgrade its treatment plant. The plant was designed to treat to a standard of about 7 mg/l of BOD. During construction the Sanitary Water Board Rules and Regulations (hereinafter SWB) became effective. Pursuant to SWB-14, Petitioner was required to meet a standard of 4 mg/l of BOD and 5 mg/l of suspended solids. Late in 1971, the Agency conducted a sampling program. Samples indicated that the 4/5 standard was not being met. Petitioner was notified of this inadequacy. Petitioner thereupon retained new engineering consultants and requested a report in order to plan further upgrading to meet standards.

During this period of time the Petitioner had also worked upon its sewer separation project; and by the middle of 1972 the greater part of this project was completed. Petitioner believed that separation was necessary in order to evaluate total plant loading.

The Agency, in its recommendation filed April 26, 1973 points out that "ignorance of applicable standards cannot justify the grant of a variance" (p.5). SWB-14, while it contains an ammonia water quality standard of 2.5 mg/l, applies this only to Public Water Supply and Food Processing Industry waters (Rule 1.04). There is no showing that Cedar Fork Creek is used for these purposes. Thus official notice of the need for ammonia reduction must begin with the March 1972 enactment by the Board of the 1.5 mg/l ammonia standard.

We have before us a variance filed March 5, 1973 asking for more time in which to do pilot plant work on ammonia, a year after the regulation was passed. This delay has not been satisfactorily explained and thus we cannot grant the ultimate relief desired which is until July 1, 1977.

On the other hand, we have before us in two regulatory proceedings the very issues of the ammonia standard itself and its deadline date and the issue of moving back from December 31, 1973 to December 31, 1974 the due dates for conformance with municipal effluent limits (R 73-3,

R73-4). Since we have not yet decided these regulatory proceedings we grant the variances requested until June 14, 1974 only leaving future extensions to a better showing of prompt pilot work research initiated between now and then. We grant a variance from Rule 921 (d) to permit the District to obtain construction permits in the absence of an approved Project Completion Schedule.


Finally, we note the Agency's comment in its recommendation that "plant effluent has little or no adverse effect on Cedar Fork Creek". The average levels in the effluent for 1972 were 17 mg/l BOD and 18 mg/l suspended solids or almost four times the incipient 4 mg/l BOD and 5 mg/l suspended solids standard for this stream. We invite the Agency to propose a new and less stringent effluent standard if it has proof that "no adverse effect" on low dilution streams will be felt.

This opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

1. Variance is granted until June 14, 1974 from Rule 203(f) as regards ammonia nitrogen.
2. Variance is granted from Rule 921(d) but a Project Completion Schedule must be submitted before June 14, 1974 showing the best anticipated date for compliance with the standards.
3. The District shall submit quarterly reports to the Agency detailing progress in its pilot plant research and in all other steps toward completion.
4. The sewage treatment plant shall not be operated at effluent levels to exceed 20 mg/l BOD and 25 mg/l suspended solids on a monthly average.
5. The District shall diligently pursue correction programs for sanitary and storm sewer overflows.
6. The District shall apply for an extension to this variance at least 90 days prior to its expiration.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 14th day of June, 1973 by a vote of 3-0.


Christan L. Moffett, Clerk
Illinois Pollution Control Board