

ILLINOIS POLLUTION CONTROL BOARD
September 25, 1986

VILLAGE OF MOUNT MORRIS,)
)
 Petitioner,)
)
 v.) PCB 86-155
)
 ILLINOIS ENVIRONMENTAL)
 PROTECTION AGENCY,)
)
 Respondent.)

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

This provisional variance request comes before the Board upon a September 25, 1986 Recommendation of the Illinois Environmental Protection Agency (Agency). The Agency recommends that a 45-day provisional variance be granted to the Village of Mount Morris (Village) from 35 Ill. Adm. Code 302.212 and 35 Ill. Adm. Code 304.120(c) as it pertains to the biochemical oxygen demand (BOD), total suspended solids (TSS) and ammonia nitrogen effluent requirements of the Petitioner's NPDES Permit during the time period in which the old rotating biological contactors (RBC's) are removed from service for replacement with new, modern RBC units.

The Village of Mount Morris owns and operates a municipal wastewater treatment facility (WWTP) which has a design average flow of 0.5 million gallons per day (MGD) and consists of an aerated grit chamber, comminutor, primary clarifier, secondary clarifiers, trickling filter, rotating biological contactors, aerated chlorine contact tank, gravity sand filters, anaerobic digesters, aerated excess flow storage lagoon and return of flow to the treatment process, and land application of sludge. The Petitioner's WWTP, which treats combined domestic and industrial flows, discharges its effluent to an unnamed tributary of Pine Creek, which discharges to the Rock River, pursuant to NPDES Permit #IL0030031. (Rec. 1; Pet. 1).

The Petitioner's NPDES Permit provides that the Village's wastewater treatment facilities must meet monthly average final effluent limitations of 10 milligrams per liter (mg/l) for BOD, 12 mg/l for TSS, and 1/5 mg/l(October)/4.0 mg/l(November) for ammonia nitrogen. (Pet. 1). Additionally, the Village's NPDES Permit provides that its WWTP must meet weekly average limits of 20 mg/l for both BOD and TSS. (Pet. 1).

According to the Village, one of its rotating biological contactors is currently "out of service and unrepairable" and the

other RBC unit is "in very bad condition and may fail at any time". (Pet. 2). As a result of the non-repairable structural failure of these RBC units, the ammonia nitrogen process efficiency has decreased to the point of excursions (due to the loss of one unit) and the Village believes that, should the second RBC unit fail, the result would be continual excursions from the applicable ammonia nitrogen effluent limits. (Pet. 2).

The Village has decided that the best solution to avert the anticipated environmental problems due to the structural failure of its RBC units is to replace both rotating biological contactors with modern, new RBC units. The Petitioner has investigated various alternatives to achieve compliance and has ascertained that the planned installation of the new RBC units is the most desirable solution because the original RBC process was very successful in providing compliance and new, more efficient RBC's will cost less and be faster to install than any other alternative equipment. (Pet. 2; Rec. 2). The Agency agrees with the Village that the proposed installation of new rotating biological contactor assemblies is the best and most practical solution. (Rec. 2).

Earlier this summer, bids were taken by the Village to have equipment suppliers provide two new shaft assemblies for its RBC's. These two new shaft assemblies are presently in fabrication and are scheduled for delivery to the Village in mid-October. The Petitioner intends to remove the old RBC shafts during mid-October, 1986 and to install the new shafts when the new shafts are delivered (sometime around November 1, 1986). The Village estimates that process efficiency will be restored in approximately three weeks (i.e., sometime around November 24, 1986), providing that the tentative timetable regarding delivery and installation is followed and that no unforeseen developments occur. (Pet. 2).

During the time period that the rotating biological contactors are expected to be out of service (i.e., from approximately mid-October, 1986 until November 1, 1986), the Village intends to direct the flow from its secondary clarifiers around the RBC process and directly to the tertiary filters, while concurrently having all other treatment processes remain in operation. (Rec. 2). At the present time, the Petitioner is in compliance with all applicable effluent limitations except for those pertaining to ammonia nitrogen concentrations. The Village has indicated that "since the second stage of the two-stage RBC nitrification went down, the 1.5 mg/l summer limit for ammonia nitrogen has been exceeded, with typical readings of 2.4 - 2.6 mg/l". (Pet. 3).

The Petitioner believes that the environmental impact of the requested provisional variance will be minimal, with a temporary and short-term increase in effluent concentrations for BOD, TSS

and ammonia nitrogen. (Pet. 2). The Agency has agreed with the Village's assessment of the situation and has emphasized that "the remaining treatment processes will remain in operation and provide secondary treatment, filtration, and disinfection of the wastewater". (Rec. 2).

The Village of Mount Morris contends that denial of its requested provisional variance would impose an arbitrary or unreasonable hardship because the present RBC's are beyond repair and must be replaced. Furthermore, the Village indicates that it has expeditiously taken appropriate steps to replace the RBC's and must, of necessity, wait for the manufacture and delivery of the new RBC shaft assemblies before it can properly correct the present situation.

For the previously mentioned reasons, the Agency agrees with the Petitioner's assessment of hardship and has therefore concluded that immediate compliance on a short-term basis with the requisite NPDES Permit standards pertaining to BOD, TSS, and ammonia nitrogen levels would impose an arbitrary or unreasonable hardship upon the Village of Mount Morris. (Rec. 1; 3). The Agency has indicated that there are no federal regulations which would preclude the granting of the requested provisional variance. (Rec. 3). Additionally, there are no downstream public water supplies which would be adversely affected by the grant of the requested relief. Accordingly, the Agency has recommended that the Board grant the Petitioner a provisional variance from 35 Ill. Adm. Code 302.212 and 304.120(c) as it pertains to BOD, TSS and ammonia nitrogen effluent requirements, subject to various specified conditions.

Pursuant to Section 35(b) of the Illinois Environmental Protection Act, the Board hereby grants the provisional variance as recommended.

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

ORDER

The Petitioner, the Village of Mount Morris, is hereby granted a provisional variance from 35 Ill. Adm. Code 302.212 and 304.120(c) as it pertains to BOD, TSS, and ammonia nitrogen effluent levels to allow time for the removal from service of its present rotating biological contactors and the replacement with new, modern rotating biological contactors at its municipal wastewater treatment plant, subject to the following conditions:

1. This provisional variance shall commence when the present rotating biological contactors(RBC's) are removed from service and shall continue for 45 days

thereafter.

2. During the term of this provisional variance, effluent from the Petitioner's wastewater treatment facility shall be limited to 20 mg/l for both BOD and TSS as monthly averages.
3. The Petitioner shall collect samples and perform analysis as set forth in its NPDES Permit #IL0030031. Analysis results shall be reported to the Agency on its monthly discharge monitoring reports.
4. The Petitioner shall notify Mr. Jack Adam of the Agency's Rockford Regional Office via telephone at 815/987-7755 when the present RBC's are removed from service; when the new RBC's are installed and placed in service, and when the RBC process efficiency is restored. Written confirmation of each telephone notification shall be submitted within 5 days to the Agency at the address given below.:

Illinois Environmental Protection Agency
4302 N. Main Street
Rockford, Illinois 61103

Attention: Mr. Jack Adam

5. The Petitioner shall operate and maintain the remaining treatment units so as to discharge the best effluent practicable.
6. Within 10 days of the date of the Board's Order, the Petitioner shall execute a Certificate of Acceptance and Agreement which shall be sent to Mr. James Frost of the Agency at the following address:

Mr. James Frost
Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
2200 Churchill Road
Springfield, Illinois 62706

This certification shall have the following form:

I, (We) _____, having read the Order of the Illinois Pollution Control Board in PCB 86-155 dated September 25, 1986, understand and accept 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, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 25th day of September, 1986 by a vote of 6-0.

Dorothy M. Gunn
Dorothy M. Gunn, Clerk
Illinois Pollution Control Board