

ILLINOIS POLLUTION CONTROL BOARD  
August 28, 1986

CITY OF PEKIN )  
(Sewage Treatment Plant #1) )  
 )  
Petitioner, )  
 )  
v. ) PCB 86-135  
 )  
ILLINOIS ENVIRONMENTAL )  
PROTECTION AGENCY, )  
 )  
Respondent. )

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

This provisional variance request comes before the Board upon an August 28, 1986 Recommendation of the Illinois Environmental Protection Agency (Agency). The Agency recommends that a 45-day provisional variance be granted to the City of Pekin (Sewage Treatment Plant #1) from 35 Ill. Adm. Code 304.121 (bacteria) to allow the Petitioner to discontinue chlorination during the period of construction when it is physically impossible to chlorinate (i.e., when its chlorination equipment and water supply piping are being replaced). The necessary repair work includes the installation of new chlorine solution lines, new chlorination equipment, new electrical wiring, and a standby pump. (Pet. 2; Rec. 1). The Board previously granted the Petitioner a 9-day provisional variance in PCB 86-61 to allow the replacement of a malfunctioning chlorination pump. (See: Opinion and Order of April 24, 1986 in PCB 86-61, City of Pekin (Sewage Treatment Plant No. 1) v. IEPA).

The City of Pekin (City), which has a population of 33,967 people, owns and operates a municipal wastewater treatment facility located at the southernmost end of the city in Tazewell County, Illinois. The Petitioner's facilities include bar screens, an aerated grit chamber, flow measurement equipment, pumps, primary clarifiers, secondary clarifiers, an activated sludge process, aerobic and anaerobic digesters, a sludge lagoon, an excess flow basin, and chlorination. The Petitioner's treatment plant has a design average flow of 3.7 million gallons per day (MGD) and discharges an average of 2.2 million gallons per day of normal secondary effluent directly into the Illinois River, a tributary of the Mississippi River, pursuant to the appropriate NPDES Permit authorization. (Rec. 1; Pet. 1). The nearest residence is about one quarter of a mile from the City's wastewater treatment plant. (Pet. 1).

The Petitioner is currently required by its NPDES Permit #IL0034495 (which was issued on April 6, 1983 and expires on April 30, 1988) to meet final effluent discharge limitations from Outfall 001 of 20 milligrams per liter (mg/l) of five-day biochemical oxygen demand (BOD<sub>5</sub>) on a 30 day average and 25 mg/l of total suspended solids (TSS) on a monthly average. Additionally, the Petitioner's effluent must meet a standard of 0.75 mg/l for chlorine residual and must comply with the daily maximum of 400 per 100 milliliters (ml) for fecal coliform. (Rec. 1). According to Agency records, the City's effluent has been in compliance with its NPDES Permit requirements continuously during the time period from October, 1983 through July, 1986 (except for the month of March, 1985). (Rec. 1).

In reference to the rationale for the proposed provisional variance, the City of Pekin has stated that:

"...The variance is requested to allow Pekin to discontinue chlorination during the period of construction when it is physically impossible to chlorinate. Chlorination of the secondary effluent is accomplished by pumping approximately 100 gallons per minute of clarified water to the chlorinators. The water mixes with chlorine gas at the chlorinators and flows to the chlorine contact basin as a chlorine solution to disinfect the secondary effluent before it is discharged to the river. The construction will involve installation of new chlorine solution lines, new chlorination equipment, new electrical wiring, a stand-by pump, and other miscellaneous improvements and replacements to the chlorination system and building. At times, the chlorination will have to be discontinued in order to complete the construction..." (Pet. 2).

To minimize the time(s) and duration when chlorination will be discontinued, the City of Pekin has indicated that it will work closely with the contractor during the requisite construction. (Rec. 2; Pet. 2).

Although the City has stated that it plans to begin its construction work during September, 1986 and that the contract time to complete the repair work is 90 days, the Agency has stated that "a maximum of 45 days can be granted to Petitioner under any one provisional variance". (Rec. 2). Accordingly, the Respondent has indicated that "therefore, the Agency will recommend that Petitioner be granted a provisional variance for 45 days". (Rec. 2).

Moreover, it should be noted by the parties that Section 36(c) of the Illinois Environmental Protection Act (Act) provides, in pertinent part, that "the provisional variances granted to any one person shall not exceed a total of 90 days during any calendar year."

The City of Pekin has asserted that the denial of its requested relief would create an arbitrary or unreasonable hardship because the planned repair work to its chlorination facilities cannot be accomplished without first discontinuing chlorination. (Pet. 1-3; Rec. 2). Additionally, the Petitioner has stressed that "the system improvements will provide a more reliable and safe chlorination system, thus minimizing periods of discontinued chlorination in future years of operation". (Pet. 3).

In reference to available compliance alternatives during the construction of the necessary improvements, the Petitioner believes that there is "no viable alternative method of compliance". (Pet. 3). The Agency agrees with the City of Pekin that "there is no reasonable alternative to discontinuing chlorination at some time during the construction process in order to complete the work and return the chlorination facilities to service". (Rec. 2).

The Agency expects that there will be little adverse environmental impact upon the Illinois River from the Petitioner's effluent discharge given the short duration of the discharges while chlorination is discontinued. The nearest town downriver is approximately 100 miles away (i.e., Beardstown) and it is unlikely that the discharge will directly significantly affect any major population centers. Because the first downstream public water supply is the City of Alton on the Mississippi River, the Agency has concluded that "there are no downstream public water supplies which would be adversely affected by granting this provisional variance request." (Rec. 2). The Agency agrees with the Petitioner that the expected environmental impact will be minimal and emphasizes that "Petitioner discharges directly to the Illinois River, which during the period October, 1983 to September, 1984 had a minimum recorded flow of approximately 3200 MGD at Pekin". (Rec. 2).

Based on the demonstrated necessity to discontinue chlorination during the period of construction when it is physically impossible to chlorinate, the Agency agrees with the Petitioner's contention that denial of the provisional variance would create an arbitrary or unreasonable hardship in this case. The Agency has also stated that there are no federal regulations that would preclude the granting of the provisional variance. (Rec. 2).

The Agency has therefore concluded that compliance on a short-term basis with applicable standards would impose an arbitrary or unreasonable hardship upon the Petitioner. (Rec. 1-2). Accordingly, the Agency has recommended that the Board grant the Petitioner a provisional variance from 35 Ill. Adm. Code 304.121, subject to certain conditions.

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

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

ORDER

The City of Pekin (Sewage Treatment Plant #1) is hereby granted a provisional variance from 35 Ill. Adm. Code 304.121, subject to the following conditions:

1. The provisional variance shall commence when chlorination is discontinued and shall continue for 45 days or until chlorination work is completed, whichever occurs first.
2. The Petitioner shall notify Mr. Gary Reside of the Agency's Compliance Assurance Section via telephone at 217-782-9720 when the work on the chlorination facilities is begun; when chlorination is discontinued; when chlorination is restarted, and when the work on the chlorination facilities is completed. Written confirmation of each verbal notification shall be submitted to the following address:  
  
Mr. Gary Reside  
Illinois Environmental Protection Agency  
Division of Water Pollution Control  
2200 Churchill Road  
Springfield, Illinois 62706
3. The Petitioner shall continue to sample and analyze its effluent and submit discharge monitoring reports to the Agency as required by its NPDES Permit #IL0034495.
4. The Petitioner shall limit the time(s) that chlorination is discontinued to those necessary to complete the work on the chlorination facilities in a safe, timely, and efficient manner.

- 5. The Petitioner shall operate and maintain its Sewage Treatment Plant #1 so as to provide the best effluent practicable.
- 6. Within 10 days of the date of the Board's Order, the Petitioner shall execute a Certification 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  
 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 86-135, dated August 28, 1986, 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, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 28<sup>th</sup> day of August, 1986 by a vote of 6-0.

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