

ILLINOIS POLLUTION CONTROL BOARD
April 24, 1986

CITY OF PEKIN)
(Sewage Treatment Plant #1))
)
Petitioner,)
)
v.) PCB 86-61
)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Respondent.)

OPINION AND ORDER OF THE BOARD (by W.J. Nega):

This provisional variance request comes before the Board upon an April 24, 1986 Recommendation of the Illinois Environmental Protection Agency (Agency). The Agency recommends that a provisional variance beginning on April 10, 1986 and continuing through April 19, 1986 be granted to the City of Pekin (Sewage Treatment Plant #1) from 35 Ill. Adm. Code 304.121 (bacteria) for the time period that chlorination was discontinued until a replacement chlorination pump could be obtained and installed.

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 effluent directly into the Illinois River, a tributary of the Mississippi River, pursuant to the appropriate NPDES Permit authorization. (Rec. 1).

The Petitioner is currently required by its NPDES Permit #ILO034495 (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 (BOD₅) 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 March, 1986 (except for the month of March, 1985). (Rec. 1-2).

On April 10, 1986, the City's chlorination pump at its Sewage Treatment Plant #1 suddenly failed. (Rec. 2). According to the Petitioner's consulting engineering firm, the situation that existed at that time was as follows:

"...The variance is requested to allow Pekin to discontinue chlorination until the pump is replaced without violation of their permit. The chlorination pump supplies approximately 100 gallons per minute of water to the chlorination system. This water mixes with chlorine gas and flows to the chlorine contact basin as a chlorine solution where it disinfects the secondary effluent before the effluent is discharged to the river. Without the pump, the system cannot operate...

...The chlorination system cannot be operated without the chlorination pump. No backup alternative pump was available to replace the existing pump. It is impossible to chlorinate and comply with the permit until the chlorination pump is repaired or replaced. An evaluation of the condition of the existing pump indicated that it was not possible to salvage it, and a new pump must be purchased as a replacement."

(See: page 2 of the attachment to the letter dated April 16, 1986 from Randolph & Associates, Inc. to the Agency.)

The Petitioner originally requested a provisional variance for 22 days beginning on April 10, 1986 to allow adequate time for the purchase and installation of a replacement chlorination pump, thereby permitting the City to discontinue chlorination until the pump was replaced. Fortunately, the City was able to obtain and install a new chlorination pump sooner than originally anticipated. It is noted that "updated information received by the Agency on April 21, 1986, indicates that the replacement chlorination pump was received and installed by Petitioner on April 19, 1986." (Rec. 2).

The Agency has indicated that "Petitioner has requested the provisional variance beginning April 10, 1986, so that it will not violate its NPDES permit while the chlorination pump is replaced". (Rec. 1). In reference to the requested relief, the Agency has stated that:

"Variance relief cannot be granted from permit conditions; however, since chlorination has been stopped due to the broken pump the chlorine residual should be below the 0.75 mg/l average. Thus, the Agency considers Petitioner's request for relief from violation of the chlorine residual limits of its NPDES permit as unnecessary as there should be no chlorine residual and that the requested relief regarding fecal coliform is to be construed as a request for variance from 35 Ill. Adm. Code 304.121." (Rec. 2).

The Board agrees with the Agency's reasoning as to the appropriate extent of the relief to be granted and will therefore construe the Petitioner's request as pertaining to 35 Ill. Adm. Code 304.121.

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 was 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." (Rec. 2). However, as stated by the Petitioner's engineering consultants, "it is probable the unchlorinated effluent may produce high fecal coliform levels in the water in the immediate vicinity of the outfall". Nonetheless, 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).

In reference to viable alternative methods of compliance, there appears to have been no feasible alternative to ordering and installing a replacement pump and the concomitant equipment parts, since no backup alternative pump was available to immediately replace the existing pump.

Based on the inability of the Petitioner to provide chlorination during the time period that the chlorination pump was being replaced, 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 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 on April 10, 1986 and shall continue through April 19, 1986.
2. The Petitioner shall operate and maintain its Sewage Treatment Plant #1 so as to provide the best effluent practicable.
3. 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 86-61, dated April 24, 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 24th day of April, 1986 by a vote of 7-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board