

ILLINOIS POLLUTION CONTROL BOARD
October 6, 1983

CITY OF FARMINGTON,)
)
) Petitioner,)
)
) v.) PCB 83-63
)
) ILLINOIS ENVIRONMENTAL)
) PROTECTION AGENCY,)
)
) Respondent.)

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

This matter comes before the Board on the petition for variance of the City of Farmington (City), filed May 5, 1983 as amended May 24 and July 18, 1983. The City seeks variance from the prohibition against sanitary sewer overflows of 35 Ill. Adm. Code 306.103(b), in order to construct temporary bypasses in its sewer system to facilitate measurement of wet weather flows. On August 12, 1983 the Illinois Environmental Protection Agency (Agency) filed its Recommendation that variance be granted until July 1, 1984, subject to conditions. Hearing was waived and none has been held.

The City of Farmington, Fulton County, has a population of about 3000 and operates a sanitary sewer system serving about 1,100 users. The sewer system is tributary to the Farmington Sanitary District's sewage treatment plant (STP).

The sewer system suffers from severe overloading during wet weather, apparently due to excess infiltration and/or inflow. If the groundwater table is high, as in the spring, a 1 3/4 inch rainfall in 12 hours will result in back-ups in about 100 basements, and sewer overflows at about 10 manholes. Rainfalls of this intensity occur on an average of once a year.

The City and Farmington Sanitary District has recently (late 1970s) completed STP construction and sewer system rehabilitation and construction under a State grant. STP construction consisted of a two cell lagoon system followed by intermittent sand filters and chlorination and terminal lift station and forcemain (a permitted bypass exists upstream of the lift station). Sewer system

rehabilitation and construction consisted of plugging three sewer cleanouts, disconnecting three storm sewer inlets, constructing 400 feet of 8-inch sewer to replace a 4-inch sewer, replacing seventy-two open-type manhole lids with watertight manhole frames, and grouting the interior of seventeen brick manholes. In addition, approximately 1,671 feet of 8-inch replacement sewers were installed that were not grant eligible. Even with this sewer system rehabilitation and construction, excessive flows still exist.

On February 9, 1982, the Agency awarded Petitioner a Step 1 State grant in the amount of \$52,500 for, in part, the preparation of an SSES (no SSES was prepared under the previous grant discussed above). The purpose of this grant is to address the problems of basement backups and manhole overflows. (This project presently does not have priority to receive Step 2 and 3 funds and future funding is "questionable", according to the Agency).

As part of the SSES, the City plans to conduct a flow monitoring study. However, it feels that accurate flow data cannot be obtained as long as unmeasurable amounts back up into basements and overflow manholes. In order to obtain a means to measure this flow, the City proposes to install three bypasses to eliminate basement backups and manhole overflows.

Bypass 1 will discharge to a tributary of Kickapoo Creek, a tributary to the Illinois River, while Bypass 2 and Bypass 3 will discharge to a tributary of Littlers Creek, a tributary to the Spoon River, and thence to the Illinois River. Both Kickapoo and Littlers Creek, in the vicinity of Farmington, are considered to have a 7-day, 10-year low flow of zero. These creeks could be adversely affected by the discharges of deoxygenating wastes and sewage related solids. However, these effects will be somewhat minimized by the fact that discharging will only occur during wet weather.

The City asserts that there is no practical alternative to the bypass method proposed if it is to gather the accurate data needed for its SSES. The use of pumps or other mechanical methods at manhole discharge points is believed not feasible due to their cost and inaccuracy, and would not address the problem of measuring basement backups.

The Agency notes that the bypasses the City proposes are actually not new. Petitioner presently has an unpermitted 24-inch high level overflow pipe at Bypass 1. (However, the Agency believes some adjustment to the elevation of the pipe might be necessary in order to provide relief from basement backups and manhole overflows.) Furthermore, during wet weather, the City pumps from various manholes to relieve basement backups, which the Agency thinks probably involves Bypass 2 and Bypass 3.

Notwithstanding these infractions of the bypassing prohibition, the Agency recommends that variance be granted until July 1, 1984, the flow monitoring completion date contained in the petition. The Agency suggests that denial of variance could affect the SSES and eventual sewer system rehabilitation which could have long term effects through the continuation of basement backups and manhole overflows if not properly planned at the beginning. On the other hand grant of variance should have only a short term impact on the receiving stream and should actually solve the basement backup problem during the period of the flow monitoring study.

Conditions suggested include a study to determine the proper elevation of bypasses, and a requirement that bypasses be plugged once the study is completed.

The Board finds that denial of variance would impose an arbitrary or unreasonable hardship, as the variance relief suggested does appear to be the only mechanism for collection of data necessary to solve a severe environmental problem. Variance from 35 Ill. Adm. Code 306.103(b) will be granted until July 1, 1984, with conditions similar to those recommended by the Agency.* The Board notes, however, that there has been considerable slippage in the timetable suggested by the City in May. Should the variance term need extension for data collection purposes, the City is invited to bring this matter to the Board's attention during the 35 day period for reconsideration of this Opinion and Order.

*The Board agrees with the Agency's comment that, should the City wish at a later time to extend the variance beyond the data collection period to allow for continued relief from the basement back-up and manhole overflow problems, a compliance plan discussing private, non-grant funding for sewer improvements would be necessary if grant funding remains "questionable".

ORDER

1. Petitioner, the City of Farmington is hereby granted variance from 35 Ill. Adm. Code 306.103(b), subject to the following conditions:

- a) This variance authorizes only installation and use of the 3 bypasses described in Exhibit A to the May 5, 1983 variance petition.

b) This variance shall expire on July 1, 1984 or upon completion of the flow monitoring study, whichever occurs first. The three bypasses will then either be removed or permanently sealed, if no further variance has been applied for by the City and granted by the Board.

c) Petitioner shall determine the elevation of sewage at each of the three bypasses when basement backups of manhole overflow occur and shall develop plans to install the bypass no more than 6 inches below this elevation. The plan and any necessary permit applications shall be submitted to the Agency for its approval.

d) Petitioner shall monitor and report to the Agency monthly the date(s) of each bypass event, quantity of wastewater bypassed, and weather conditions that caused the bypass.

2. Within thirty (30) days of the date of this Order, Petitioner shall execute and forward to Steven M. Spiegel, Attorney Advisor, Enforcement Programs, the Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706, a Certificate of Acceptance and Agreement to be bound to all terms and conditions of this variance. This thirty (30) day period shall be held in abeyance for any period this matter is being appealed. The form of the certificate shall be as follows:

CERTIFICATE

I, (We), _____, having read the Order of the Illinois Pollution Control Board in PCB 83-63 dated _____, 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.

Board Chairman J.D. Dumelle concurred.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 6th day of October, 1983 by a vote of 40.



Christan L. Moffett, Clerk
Illinois Pollution Control Board