

ILLINOIS POLLUTION CONTROL BOARD
April 16, 1981

THE VILLAGE OF SAUGET)
AND THE CITY OF EAST ST. LOUIS,)
)
) Petitioners,)
)
) v.) PCB 80-176
)
) ILLINOIS ENVIRONMENTAL PROTECTION)
) AGENCY,)
)
) Respondent.)

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

On September 30, 1980, Petitioners filed a variance petition requesting relief from Rule 602(c)(1) and (2) of Chapter 3: Water Pollution. On October 31, 1980, the Environmental Protection Agency (Agency) filed a recommendation that the variance be granted subject to certain conditions. Hearing was waived and none was held.

Petitioners are Illinois municipal corporations situated in St. Clair County, Illinois, on the east bank of the Mississippi River. All wastewater within the East St. Louis sewer system is currently transported to the East St. Louis wastewater treatment plant. During periods of increased flow due to rainfall, wastewater is discharged directly to the Mississippi River.

In September, 1977, the Village of Sauget was designated as lead agency for the design, construction and operation of a Regional Wastewater Treatment Facility to provide primary and secondary treatment of the wastewater from the Cities of East St. Louis, Centreville, and the Villages of Sauget, Cahokia, Brooklyn, Allerton and National City.

Part of Sauget's responsibilities under the Step I Facilities Plan were to conduct a first flush analysis of the East St. Louis combined sewer system. According to Agency determinations any rainfall-related flows in a combined sewer system with levels of contaminants in excess of those concentrations expected on an average daily basis are deemed to be first flush flow. These flows normally have high concentrations of pollutants, (BOD₅, suspended solids, metals, etc.) which have accumulated in the system at times of dry weather. When resuspended from increased flow to the sewer system, the first flush is required under 602(c)(1) to receive the same degree of treatment as dry weather flow. Compliance with Rule 602(c)(2) requires a minimum of primary treatment for

not less than ten times the average dry weather flow. These flows are alleged to consist of approximately 20.9 million gallons, and 87 million gallons, respectively (see "East St. Louis' First Flush Analysis for the American Bottoms Regional Treatment Wastewater Facility" conducted by Russell and Axon, Inc., and submitted with the petition).

The Russell study concluded that the most cost-effective means of treating first flush flows would be to construct a 21 million gallon equalization basin to store the first flush and to provide subsequent transportation to the treatment facility. Total capital cost is estimated at \$9.2 million and annual operating costs at \$249,000.

The study further determined that primary treatment and disinfection of "10 times" average dry weather flow would require a facility with the capability of treating 87 million gallons. The most cost-effective approach was found to be the construction of a settling basin with a 21.8 million gallon capacity to provide one hour detention time for peak flow rates. Total capital cost is estimated at \$6.6 million and annual operating costs at \$312,000.

It is alleged that these costs are unreasonable in light of the minimal environmental damage that will result from a granting of this variance. Due to the large assimilative capacity of the Mississippi River, even at low river flow the concentration of BOD₅ is estimated to increase to 10.0 mg/l from 9.9 mg/l while total suspended solids (TSS) should actually decrease from 359.0 mg/l to 358.7 mg/l. Petitioners, therefore, allege that for all practical purposes no detectable environmental impact would result.

The Agency recommends a variance grant to eliminate unnecessary delays in the design or construction of the American Bottoms Regional Wastewater Treatment Facilities (ABRWTF), while Petitioners expeditiously pursue a permanent regulatory change. It asserts that such a delay would impose an arbitrary or unreasonable hardship upon the petitioners and the communities expecting to discharge to ABRWTF. If the variance is not granted, the Agency contends that present plans could not receive Agency approval until the regulatory proceeding has been decided.

The Agency states that denial will cause "unnecessary delays," but the delay will have been unnecessary only if the Board adopts the proposed site-specific regulation (R81-12). If the proposal is denied, a granting of the variance would, apparently, cause delay in that the approved plans would not have included design and construction of the basins. Further, without such inclusion, there is no showing of a compliance plan other than the hope that the regulatory proceeding will be decided in favor of Sauget. In other words, the granting of variance requires a plan which will lead to compliance with existing regulations within a five-year period. A compliance plan cannot be based solely upon the assumption that the regulations will change.

To decide a variance, as the Agency appears to recommend, based solely on a pending regulation serves to encourage variance petitioners to file rulemaking proceedings before the Board in order to bootstrap their way to a favorable variance decision.

Setting aside the consideration of the regulatory proceeding, the petition is inadequate to warrant a variance grant in three respects. First, the environmental impact computations cited are deceiving. The water quality standards of the Board deal with pollutant concentrations outside of the mixing zone. The theoretically derived concentrations using the entire volume of the Mississippi River as a mixing zone are not of primary interest. A mixing zone of that size is impermissible under Rule 201(b) of Chapter 3: Water Pollution. The "mixing zones must be quite small if the water quality standards are to have any meaning" (Rule 201(a)). The record is silent as to pollutant concentrations immediately outside of a mixing zone of acceptable size.

Second, the record is silent as to contaminants other than BOD₅ and TSS. Certainly these are not the only contaminants involved. Heavy metals and organics, among others, should also have been evaluated.

Third, wastewater from combined sewers will by definition carry objects of sewage origin. These are repugnant to the eye. In addition they carry bacterial and viral contamination. No statement is made about these environmental impacts.

Finally, even the economic hardship figures are deceptive. Much of the funding may well come from external sources. Further, if the regulatory proposal is adopted, the construction costs will be avoided. Only the unavoidable costs, most notably design fees for which no costs are given, constitute certain hardship. These figures should have been presented, as should costs of a shorter detention-time facility.

For these reasons, the Board will dismiss this petition as insufficient but will grant leave to refile.

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

ORDER

Proceedings in PCB 80-176 are hereby dismissed without prejudice.

IT IS SO ORDERED.

I. Goodman concurs.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 16th day of April, 1981 by a vote of 5-0.

Christan L. Moffett
Christan L. Moffett, Clerk
Illinois Pollution Control Board