

ILLINOIS POLLUTION CONTROL BOARD
August 23, 1979

CITY OF WINDSOR,)
)
 Petitioner,)
)
 v.) PCB 79-130
)
 ENVIRONMENTAL PROTECTION AGENCY,)
)
 Respondent.)

OPINION AND ORDER OF THE BOARD (by Mr. Young):

This matter comes before the Board on a Variance Petition filed on June 28, 1979, by the City of Windsor for relief from the dissolved oxygen water quality standards of Rules 203(d) and 402 of Chapter 3: Water Pollution Regulations, in order to qualify for a "Pfeffer Exemption" pursuant to Rule 404(f)(ii) of Chapter 3. On August 7, 1979, the Agency filed a Recommendation favorable to the grant of this relief provided that the Petitioner adhere to certain conditions. No hearing was held in this matter; hearing was properly waived by the Petitioner.

The City of Windsor is currently considering measures for upgrading its treatment facility under a Step 1, Facilities Plan. Petitioner's existing facility consists of an activated sludge treatment system, an effluent polishing pond and chlorination. The Windsor treatment facility is currently designed to receive an average flow of 150,000 gallons per day. The effluent is discharged to a tributary of Sandy Creek which is 3 to 4.5 miles upstream from Lake Shelbyville. (Pet. 2, 3, 5; Rec. 2).

On June 18, 1979, Petitioner's request for a "Pfeffer Exemption" was denied. The Agency rejected the request to allow Petitioner's proposed facility to plan treatment capabilities of 10 mg/l BOD₅ and 12 mg/l total suspended solids on the basis that it was impossible to determine, by modeling, the impact of Petitioner's discharge on the dissolved oxygen concentration in the receiving stream. The Streeter-Phelps equation, which is designed to predict the reaeration capabilities of a particular stream segment, can not be modified to accurately determine the dissolved oxygen impacts on Lake Shelbyville. (Rec. 2, 3).

In preparing its Step 1, Facilities Plan, the City of Windsor has advanced three alternative measures for achieving compliance with the Board's Water Pollution Rules. Alternative #1 proposes improvements to upgrade the plant's treatment capabilities to 10/12 BOD₅/TSS, provided that a variance be obtained from the dissolved oxygen requirements of Chapter 3. Alternative #2 would require an expenditure, in addition to the cost of the treatment improvements in Alternative #1, for a secondary lift station and 13,000 feet of six-inch pipe to divert its wastewater to an alternative river basin. Alternative #3 consists of proposed land application measures to the secondary treated effluent of the Windsor plant. The estimated cost for upgrading the Windsor facility in accordance with Alternative #1 is \$542,000; the estimated costs for Alternatives #2 and #3 are \$1,228,000 and \$1,352,000, respectively. With timely grants of Step 2 and Step 3 design and construction monies under the construction grants program, the City of Windsor anticipates completion of its improved facility by August, 1981. (Pet. 3-5, Tables 1-3).

After assessing the economic reasonableness of the alternative treatment technologies in its Facilities Plan, the Petitioner states and the Agency does not dispute that implementation of Alternative #2, diversion to another watershed and Alternative #3, land application, would impose an arbitrary and unreasonable hardship. In R77-12, Docket C, the Agency has proposed the deletion of the 4/5 BOD₅/TSS effluent limitation for dischargers to streams with less than one-to-one dilution ratio. During substantive hearings in this matter, the Agency has stated that treatment to a 4/5 BOD₅/TSS level is beyond the capabilities of conventional tertiary treatment. (Pet. 4-5).

The Board agrees that failure to grant the requested relief would impose an arbitrary and unreasonable hardship in view of the pending proceeding in Docket C of R77-12. Petitioner will be granted a variance from Rules 203(d) and 402 of Chapter 3 for two years in order for the Petitioner to qualify for its "Pfeffer Exemption". This variance shall terminate upon the adoption of any modification to the 4/5 BOD₅/TSS requirements in R77-12, Docket C.

During this interim period, Petitioner shall consider all reasonable measures in the design of the proposed facility for improving the dissolved oxygen concentration in the effluent from its existing treatment facility. Petitioner will not be required to monitor dissolved oxygen levels downstream from its discharge as recommended by the Agency at this time.

The Board will direct the Agency to modify Petitioner's NPDES permit to be consistent with this Order pursuant to Rule 914 of Chapter 3 to include interim effluent limitations and other measures as may be achieved or implemented through the application of best practicable operation and maintenance practices in the existing facility.

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

ORDER

1. The City of Windsor is granted a variance for its wastewater treatment plant from Rules 203(d) and 402 of Chapter 3: Water Pollution Regulations regarding dissolved oxygen until August 23, 1981, subject to the following conditions:

- (a) The City shall implement all reasonable measures in the design of its proposed treatment facility to increase dissolved oxygen levels in the treatment plant's effluent;
- (b) The variance shall terminate earlier upon adoption by the Board of any modification to 4/5 BOD₅/TSS requirements and the City shall comply with the revised regulations adopted by the Board.

2. Petitioner, within 30 days of the date of this Order, shall request Agency modification of its NPDES Permit to incorporate all conditions of the variance set forth herein.

3. The Agency, pursuant to Rule 914 of Chapter 3, shall modify Petitioner's NPDES Permit consistent with all conditions set forth in this Order including such interim effluent limitations as may reasonably be achieved through the application of best practicable operation and maintenance practices in the existing facility.

4. Within forty-five (45) days of the date of this Order, the Petitioner shall submit to the Manager, Variance Section, Division of Water Pollution Control, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706, an executed Certification of Acceptance and Agreement to be bound to all terms and conditions of the variance. The forty-five day period herein shall be stayed during judicial review of this variance pursuant to Section 41 of the Environmental Protection Act. The form of said certification shall be as follows:

CERTIFICATION

I, (We), _____ having read the Order of the Pollution Control Board in PCB 79-130, understand and accept said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

SIGNED

TITLE

DATE

IT IS SO ORDERED.

Dr. Satchell abstained.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 23RD day of August, 1979, by a vote of 4-0.

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