## ILLINOIS POLLUTION CONTROL BOARD May 11, 1978

CITY OF AUBURN,	)	
Petitioner,	)	
V.	)	PCB 78-58
ENVIRONMENTAL PROTECTION AGENCY,	)	
Respondent.	)	

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

This matter comes before the Board on a Petition filed on March 2, 1978, by the City of Auburn for a variance from the phosphorus requirements of Rules 203(c), 402, and 404(f) of Chapter 3: Water Pollution Regulations, as a prerequisite for obtaining a Pfeffer exemption. On April 3, 1978, the Environmental Protection Agency filed a Recommendation in favor of granting a variance from Rules 203(c) and 402 provided that Petitioner adhere to certain conditions. No hearing was held in this matter.

The City of Auburn, Sangamon County, Illinois, owns and operates a sewage treatment works which discharges to the Sugar Creek tributary to Lake Springfield (Pet. p2). Since the treatment plant discharges to a lake, it is subject to the requirements of Rules 203(c) and 402 for phosphorus which, in combination, prohibit any discharge from causing or contributing to a violation of the 0.05 mg/l phosphorus water quality standard in any lake or in any stream at the point of entry into the lake. Petitioner does not need a variance from the phosphorus requirements in Rule 404(f) for, in this case, relief from Rule 203(c) would remove the phosphorus requirement as a condition for a Pfeffer exemption.

The Auburn sewage treatment works is an activated sludge facility consisting of a bar screen, aerated grit removal, comminutor, activated sludge plant, pumping station, polishing pond, and a final tank containing chlorination equipment and newly-installed chemical treatment equipment for phosphorus which is expected to be operational in the next few months (Pet. p5, 8). Constructed in 1974, the treatment facility was expected to meet 4 mg/l BOD<sub>5</sub> and 5 mg/l total suspended solids on a 30-day average (Rec. p3). The 1977 Agency grab samples show that the Auburn effluent concentration averaged 14 mg/l

BOD<sub>5</sub>, 14 mg/l total suspended solids, and 5.4 mg/l phosphorus (Pet. p4). While these figures are higher than anticipated, the Agency considers that the plant design is experimental in nature and its polishing pond to be an unproven technology. It further notes that the Auburn facility often produces an effluent quality within the 4/5 BOD<sub>5</sub>/TSS limitation and was consistently less than the 10/12 standard (Rec. p3).

Information from the National Eutrophication Survey indicates that the City of Auburn contributes approximately 6.5% of the phosphorus load entering Lake Springfield. With the addition of phosphorus removal equipment, Petitioner submits that these improvements will reduce its phosphorus concentrations from 5.4 mg/l to 1.0 mg/l and its contribution to Lake Springfield from 6.5% to 1.2% (Pet. p2, 8). At these anticipated effluent levels, Petitioner claims that its phosphorus contribution to Lake Springfield would be equivalent to that derived from direct precipitation (Pet. p9).

The City of Auburn states that treatment of municipal sewage to meet a 0.05 mg/l phosphorus standard is technically infeasible (Pet. p5). In evaluating alternative measures, Petitioner claims without the benefit of detail, that two stage treatment using dual media filtration would reduce phosphorus concentration to 0.1 mg/l but cost prohibits use of this technology. Petitioner further claims that its chemical treatment efforts should achieve consistent phosphorus effluent levels of 1.0 mg/l (Pet. p5).

The Board is familiar with the problems facing municipal dischargers in meeting phosphorus standards. City of Hoopeston, PCB 76-234, 24 PCB 441; Southern Illinois University at Edwards-ville, PCB 77-111, 25 PCB 775; Valley Water Company, Inc., PCB 77-146, 25 PCB 289.

In those and other cases, the Agency and the Board have recognized that it is economically impractical for the petitioners to comply with the current phosphorus limitation of Chapter 3. In addition, the Agency has petitioned the Board in regulatory proposal R76-1 for appropriate amendments to the phosphorus effluent and water quality standards of the Water Pollution Regulations. If regulatory proposal R76-1 were adopted as proposed, the City of Auburn would be required to treat phosphorus to a level of 1.0 mg/l (Rec. p3).

The Board will direct the Agency to issue a new NPDES permit to Petitioner consistent with this Order pursuant to Rule 914 of Chapter 3 and to include interim effluent limitations as may be reasonably achieved through the application of best practicable operation and maintenance practices in the existing facilities.

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

## ORDER

- 1. The City of Auburn is granted a variance for the operation of its wastewater treatment plant from Rules 203(c) and 402 of Chapter 3: Water Pollution Rules and Regulations regarding phosphorus until April 27, 1983, subject to the following condition:
  - a) This variance will earlier terminate upon adoption by the Board of any modification of the existing phosphorus water quality standards and effluent limitations and the City shall comply with such revised regulations when adopted by the Board.
- 2. The Petition for Variance from the phosphorus requirements of Rule 404(f) of Chapter 3: Water Pollution Regulations is hereby dismissed.
- 3. Petitioner shall immediately request Agency for NPDES permit to incorporate all conditions of the variance set forth herein.
- 4. The Agency, pursuant to Rule 914 of Chapter 3, shall issue a new NPDES permit consistent with the conditions set forth in this Order including appropriate monitoring requirements and such interim effluent limitations as may reasonably be achieved through the application of best practicable operation and maintenance practices in the existing facilities.
- 5. 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 suspended in the event of judicial review of this variance pursuant to Section 31 of the Environmental Protection Act. The form of said certification shall be as follows:

## CERTIFICATION

the Order of the Pollution Control Board in PCB 78-58, 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.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the  $11^{+1}$  day of 1978 by a vote of 1978 by a vote

Christan L. Moffett, Clerk
Illinois Pollution Control Board