

ILLINOIS POLLUTION CONTROL BOARD

August 1, 1974

CITY OF EFFINGHAM)
)
 v.) PCB 74-186
)
 ENVIRONMENTAL PROTECTION AGENCY)

OPINION AND ORDER OF THE BOARD (by Dr. Odell)

On May 21, 1974, the City of Effingham filed with the Pollution Control Board (Board) a Petition for Variance from Rule 203(f) of the Water Pollution Regulations (Chapter 3). Rule 203(f) of Chapter 3 states, in pertinent part, that the concentration of copper in any water of the State may not exceed 0.02 mg/l. Effingham wants to treat its 64-million gallon public water supply reservoir with copper sulfate to control excess algae growth which occurs during the warm summer months. Effingham alleges that there have been no adverse effects from the use of copper sulfate as an algicide in their reservoir during the summers since 1947. Alternative algaecides are less desirable than copper sulfate.

On May 23, the Board issued an interim Order requesting additional information within 35 days relative to copper levels in the raw water intake actually achieved under the previous Variance (City of Effingham v. Environmental Protection Agency, PCB 73-391, October 18, 1973).

On June 7, 1974, the Board received information from the City of Effingham that (a) although they received a Variance (PCB 73-391) for the use of copper sulfate in the summer of 1973, this treatment was not used and (b) they "have no information on the resultant concentration of copper with treatments previous to 1973."

The Environmental Protection Agency (Agency) filed its Recommendation on July 8, 1974. "Petitioner's operator states that because of the lateness of the petition (filed with the Agency September 7, 1973) and the resulting Board order, Petitioner did not make any copper sulfate treatment during 1973. Therefore, Petitioner has no special copper measurements for review. The Agency has in its files the following copper measurements taken in conjunction with other water analyses from the Petitioner's water supply. They are as follows:

<u>Date collected</u>	<u>Sampling point</u>	<u>Sample type</u>	<u>Copper concentration</u>
4.30.73	Finished	Monthly bacterial	0.01 mg/l
5.30.73	Raw	Monthly bacterial	0.06 mg/l
8.13.73	Raw	Complete mineral	0.08 mg/l
8.13.73	Finished	Complete mineral	0.0 mg/l
8.21.73	Raw	Monthly bacterial	0.18 mg/l
8.21.73	Raw	Monthly bacterial	0.15 mg/l
9.25.73	Raw	Monthly bacterial	0.15 mg/l

In light of Petitioner's allegation that no copper sulfate treatment occurred during the 1973 season, the Agency finds the copper concentration levels reported for August 21, 1973, and September 25, 1973, somewhat puzzling. The most likely implication of these measurements is that Petitioner did, in fact, treat the reservoir prior to receiving a variance, although the Agency does not have any further evidence on this point. While the Agency is concerned about the possibility of an infraction by Petitioner, it does not feel that an implication of such an infraction is sufficient to warrant the adverse results from denial of Petitioner's present request for a copper sulfate variance." The Agency recommends that the Variance be granted, subject to certain conditions.

The Board notes the irregular copper values in August and September, 1973, and urges Petitioner to monitor copper concentrations more carefully. The Board will grant this Variance because (a) copper sulfate is the best available treatment for excess algae, (b) no short term adverse environmental effects will result if the treatment is properly made, and (c) it will be beneficial to the public interest.

ORDER

IT IS THE ORDER of the Pollution Control Board that:

Variance is granted from Rule 203(f) of the Water Pollution Regulations (Chapter 3) to permit exceeding the water quality standard for copper of 0.02 mg/l when treating with copper sulfate for algae control in the water supply reservoir during the summer of 1974. This Variance is subject to the following conditions:

- a. The copper sulfate treatment shall be limited to one treatment per month for the months of June through October, 1974.

- b. The copper sulfate dosage shall not exceed 300 pounds per treatment.
- c. Copper concentrations at the raw water intake to the treatment plant should never exceed the 1.0 milligram per liter; and
- d. Copper concentrations in the reservoir shall be measured immediately prior to and after each copper sulfate treatment and the results of the measurements shall be submitted to the Agency on a monthly basis.
- e. Petitioner shall measure copper concentrations at the raw water intake during times of copper sulfate application and keep those measurements on file for Agency review.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 1st day of August, 1974, by a vote of 5 to 0.


Christan L. Moffett