

ILLINOIS POLLUTION CONTROL BOARD
May 20, 1976

CITY OF VANDALIA,)
Petitioner,)
)
v.) PCB 76-25
)
ILLINOIS ENVIRONMENTAL PROTECTION)
AGENCY,)
Respondent.)

OPINION AND ORDER OF THE BOARD (by Dr. Satchell):

Petitioner filed a variance request on January 23, 1976. The request is for a variance from Rule 203(h) of the Chapter 3 Water Pollution Regulations in order to treat certain shallow bays of Vandalia Lake with rotenone, a fish toxicant, in order to reduce the population of stunted carp from the Lake as part of a fish management program in conjunction with the Illinois Department of Conservation.

On January 29, 1976 the Board entered an Interim Order allowing the City of Vandalia an additional forty-five (45) days to submit information as to whether the Lake was a public water supply or whether it discharges to a stream that is a public water supply. On February 26, 1976 Petitioner filed additional information. The Agency filed its recommendation on May 12, 1976. The additional information indicated that while the Lake was not used as a direct source of a public water supply, it does have a discharge which reaches the Kaskaskia River approximately three and one half miles from the Lake. The City of Vandalia withdraws raw water from the River approximately one mile down stream from this point.

Petitioner intends to treat shallow bay areas of the Lake three times in 1976 over the spring and summer months when carp are schooling and are present in large numbers. The Agency in its recommendation states that it subsequently confirmed that the thirty (30) gallons of solution was intended to be used as the total for the season. It is to be applied in ten (10) gallon doses. In the initial petition it was estimated that the concentration of the rotenone in the area to be treated would be approximately 1 mg/l. The Agency calculates the treatment process will result in a concentration of 0.014 mg/l in the Lake. The Agency recommendation noted that the Lake has a surface area of approximately 660 acres and if the applied toxicant was dispersed evenly throughout the Lake, it would result in a concentration that would be for all intents immeasurable when mixed with the total water volume of the lake.

A regional fisheries biologist with the Illinois Department of Conservation will supervise the application of the toxicant. The fish killed will be properly removed from the Lake.

The Agency states that the toxic effects of rotenone will be of no threat to the users of the Vandalia Water Supply from the proposed application. At the estimated concentration in the bay areas to be treated, an ingestion of some 15,000 liters would be necessary to have a toxic effect. According to the "Farm Chemicals Handbook" (1976) rotenone loses its effectiveness within a week of application. The material deteriorates rapidly in sun and air. As any treated water will have to travel at least 4.5 miles of natural water course, including the Kaskaskia River, before it reaches Vandalia's treatment plant, the Agency states that this will further dilute the concentration of rotenone and will also accelerate its degradation. Additionally, Petitioner has stated applications will be made approximately two miles from the discharge area. At certain concentrations, rotenone can cause taste and odor problems in reaction with chlorine, a treatment chemical employed by Petitioner's supply; however, the Agency believes that the possibility of a concentration of rotenone sufficient to cause such a problem reaching the treatment plant is so slight as to not warrant requiring Petitioner to take any remedial action.

The Agency was also informed that there were several private homes which withdraw water from Vandalia Lake for potable use. The Agency states that while there does not appear to be any threat to these users from the amounts of rotenone used, Petitioner should notify these residents at least twenty-four (24) hours prior to any application and should avoid treating the Lake within 200 feet of their individual intake points.

The Agency did recommend that the variance be granted but with the following conditions:

- (a) That the rotenone treatment of the Lake be limited to three applications during the spring and summer months of 1976.
- (b) That each application of rotenone not exceed ten (10) gallons of liquid solution.
- (c) That the application be supervised by personnel of the Illinois Department of Conservation.

- (d) That individual homeowners using Vandalia Lake as a potable water supply source be notified at least 24 hours prior to application and that no application be made within 200 feet of any potable water intake.
- (e) That the Agency be notified at least 24 hours prior to any application.
- (f) That Petitioner effectively remove all fish killed by the rotenone treatment and dispose of them in a proper manner.
- (g) That Petitioner take a sample of its finished water four days after the application of rotenone to Vandalia Lake and forward the sample to the Agency for analysis. The Petitioner shall also forward additional samples of its finished water as may be required by the Agency.

The Board recognizes that the elimination of excess rough fish is a desirable fisheries management goal. The variance is granted subject to the requirements of the Agency Recommendation.

This constitutes the Board's findings of fact and conclusions of law.

ORDER

1. The Pollution Control Board hereby grants the City of Vandalia a variance from Rule 203(h) of the Chapter 3: Water Pollution Regulations in order to treat portions of Vandalia Lake with rotenone three times in 1976 over the spring and summer months subject to the aforementioned conditions in the body of the opinion.

2. Within 35 days of the date of this Order, 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 form of said certificate shall be as follows:


CERTIFICATION

I, (We), _____ having read the Order of the Illinois Pollution Control Board in PCB 76-25 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 20th day of May, 1976 by a vote of 5-0.


Christan L. Moffett, Clerk
Illinois Pollution Control Board