



The above five petitioners all filed a Petition seeking a variance from the limit of 0.02 mg/l of copper found in Rule 203(f) of the Water Pollution Rules in order to apply copper sulfate to public supply reservoirs to control algal growth. The Board ordered additional information concerning actual dosages, frequency of application, and the resulting copper concentrations in raw water intakes in three of the petitions; Harrisburg, Eldorado, and Triple Oaks. These three Petitioners all complied with the Board's Order. The Agency has recommended a grant in all five cases.

We granted the first of the 1974 seasonal algae growth variances in City of Nashville, PCB 74-35 on April 18, 1974. For the reasons detailed in that Opinion, the Board has decided to grant each of the five requests as recommended by the Agency. "However, a concern of the Board, is the possible buildup of copper in the bottom sediments sufficient to poison benthos or affect bottom-feeding fish. The requirement to obtain a permit from the Agency for the activity proposed by (Petitioner) is currently before the Board in the proposed amendments to the Public Water Supply Systems Rules and Regulations, R73-13"(City of Nashville supra). While the Board notes that differing water conditions, i.e. hardness, alkalinity, nutrient loading, turbidity, temperature, etc., affect the potential for algal growth, the Board questions the necessity of the wide difference from 0.06 mg/l to 0.35 mg/l of recommended copper application concentrations present in these five cases. "It may be that the traditional amounts of copper sulfate always used in the past are being recommended by the Agency with no attempt to prescribe the least possible amount" (City of Mount Olive et al v. EPA, PCB 73-124, at 9-12, August 9, 1973).

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

#### ORDER

Each Petitioner is hereby granted a variance from Rule 203 (f) of the Water Pollution Rules subject to the following conditions:

1. That copper sulfate treatment be limited to one treatment per month for: City of Harrisburg, to be applied for the months of May, through and including September, 1974; City of Mount Olive, to be applied for the months of May, through and including October, 1974; City of Ashley, be applied for the months of April, through and including September, 1974; Eldorado Water Company, to be applied for

the months of May, through and including October, 1974; and Triple Oaks Water Company, to be applied for the months of June, through and including September, 1974;

2. That copper sulfate dosages not exceed: City of Harrisburg, 600 and 500 lbs. per treatment for the north and south side channels which at maximum dosages should not exceed 0.12 mg/l respectively; City of Mount Olive, 900 lbs. per treatment in the main reservoir and if the supplemental reservoir is treated 400 lbs. per treatment which at maximum dosages should not exceed 0.135 and 0.11 mg/l respectively; City of Ashley, 350 lbs. per treatment, which at maximum dosages should not exceed 0.35 mg/l; Eldorado Water Company, 600 lbs. per treatment which at maximum dosages should not exceed 0.08 mg/l; and Triple Oaks Water Company, 90 lbs. per treatment in Lake Wildwood and 500 lbs. per treatment in Northern Oaks Lake which at maximum dosages should not exceed 0.14 mg/l and 0.06 mg/l;
3. That copper sulfate at the raw water intake to each treatment plant never exceed 1.0 mg/l recommendation of the U.S. Public Health Service Drinking Water Standards;
4. That the copper concentrations in the reservoir be measured immediately prior and after each copper sulfate treatment, and the results of the measurements be submitted to the Environmental Protection Agency on a monthly basis.

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 2<sup>ND</sup> day of May, 1974 by a vote of 4-0.

  
Christan L. Moffett, Clerk  
Illinois Pollution Control Board