

ILLINOIS POLLUTION CONTROL BOARD  
November 1, 1979

CITY OF ONEIDA, )  
 )  
 ) Petitioner, )  
 )  
 ) v. ) PCB 79-158  
 )  
 ) ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
 ) Respondent. )

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

Petitioner has requested a variance from the drinking water standard for fluoride for its public water supply in Knox County. The Agency has recommended that a variance be granted until January 1, 1981. No hearing was held.

Petitioner's water supply serves a community of 780 persons with approximately 300 water users. Petitioner recently constructed a 150,000 gallon elevated water storage tank which will replace an aging wooden ground storage tank and pressure tank. Raw water from Petitioner's two existing wells has an average fluoride content of 2.0 - 2.5 mg/l. Petitioner is presently required to meet a standard of 2.0 mg/l by Rule 304B4 of Chapter 6: Public Water Supplies. Petitioner has investigated three alternative treatment techniques to comply with this standard. They are activated alumina and bone char adsorption, reverse osmosis, and electro dialysis. In addition, Petitioner has investigated alternate ground water or surface water supplies. Petitioner has concluded that there are no alternative sources available and that adsorption is the most cost effective treatment technique. Adsorption would involve \$255,000 in installation costs which would require additional annual revenues of \$35,000. Water rates would have to rise from the present \$10.00/user/month to \$27.00. Petitioner feels that this increase is unreasonable since the fluoride standard may be changed at the federal level soon and fluoride treatment is unreliable. Petitioner is requesting relief until January 1, 1981, the maximum extent allowed under federal law, with a promise to install fluoride removal after that date if necessary. Petitioner feels that its present fluoride levels do not constitute a threat to public health.

The Agency's data show that recent fluoride analyses of Petitioner's supply have ranged as high as 3.8 mg/l. The

Agency agrees that there is no fluoride free ground water supply available to Petitioner and that switching to a surface water supply is not an economically reasonable alternative. The Agency feels that activated alumina adsorption is superior to the use of bone char and that Petitioner's cost estimates are accurate. The Agency agrees that present fluoride levels are not a health threat and that Petitioner should not be required at this time to install fluoride removal. The Agency believes that U.S. EPA may raise the permissible maximum concentration level for fluoride and that Congress may extend the date for compliance with all of the National Interim Primary Drinking Water Standards U.S. EPA feels that aside from tooth mottling, no adverse health effects have been observed at levels up to 8 mg/l. Until further studies are completed, U.S. EPA recommends interim relief up to 4 mg/l providing excess tooth mottling is not evident. The Agency believes that the fluoride levels in Petitioner's supply should not produce noticeable tooth mottling.

The Board has addressed similar situations in three variances affecting small water supplies near Petitioner's (Central Illinois Utility Co. v. EPA, PCB 77-349, 30 PCB 32, April 13, 1978; Little Swan Lake Sanitary District v. EPA, PCB 78-53, 30 PCB 310, May 25, 1978; and Village of Rio, PCB 78-218, 31 PCB 691, October 19, 1978). In each case the Board granted relief because present levels were below 4 mg/l and treatment was unproven and unreasonably expensive. The Board noted that it would be inappropriate to require treatment which may be rendered unnecessary if the standard is changed. Since those decisions, U.S. EPA has granted Illinois primary enforcement responsibility (primacy) under the Safe Drinking Water Act.

The Board concludes that denial of a variance in this instance would constitute arbitrary or unreasonable hardship. Petitioner's circumstances are similar to the previous variances, and the logic of those decisions is controlling. The only difference here is that the vesting of primacy requires the Board to respect Federal deadlines. Consequently Petitioner will be required to submit a compliance program for approval by the Agency to show that it is ready to comply with whatever standards or deadlines U.S. EPA or Congress may choose to establish.

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

#### ORDER

1. Petitioner is hereby granted a variance from the drinking water standard for fluoride in Rule 304B4 of Chapter 6: Public Water Supplies until January 1, 1981.

- 2. Within six months of the date of this Order, Petitioner shall submit a compliance program for approval by the Agency to show its plans to comply with the fluoride standard in a timely fashion.
- 3. Within 45 days of the date of this Order Petitioner shall execute a certification of acceptance and agreement to be bound by the terms and conditions of this variance. This 45 day period shall be held in abeyance if this matter is appealed. The certification shall be forwarded to the Illinois Environmental Protection Agency, Division of Public Water Supplies, 2200 Churchill Road, Springfield, Illinois 62706 and shall read as follows:

CERTIFICATION

I (We), \_\_\_\_\_, having read and fully understanding the Order in PCB 79-158 hereby accept that Order and agree to be bound by all of its terms and conditions.

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 1st day of November, 1979 by a vote of 4-0.

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