

ILLINOIS POLLUTION CONTROL BOARD
November 15, 1979

TRIVOLI PUBLIC WATER DISTRICT,)
)
Petitioner,)
)
v.) PCB 79-198
)
ENVIRONMENTAL PROTECTION AGENCY,)
)
Respondent.)

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

This matter comes before the Pollution Control Board upon a variance petition filed on September 17, 1979 by the Trivoli Public Water District in Trivoli, Peoria County. Petitioner requests a variance from the 2.0 mg/l limitation for fluoride in Rule 304(B)(4) of Chapter 6: Public Water Supplies for a period of five years. The Environmental Protection Agency (Agency) filed a recommendation on October 19, 1979. No hearing was held and no comment has been received.

The Trivoli Public Water District (District) was formed in 1970 to replace the unreliable private wells serving each home in an unincorporated community. With the aid of local volunteer help and a forty year loan of \$130,000 from the Farmers Home Administration (FHA) the well and distribution system was constructed. Petitioner presently serves 105 homes and businesses with the total income used to cover loan payments, operating expenses and depreciation. Because of high loan costs, the water rate charges are substantially higher than those of adjacent communities. Petitioner's loan costs will continue until 2010; no reduction in expenses is expected until then.

Petitioner's average fluoride concentration as of May 24, 1979 was 3.85 mg/l. This exceeds the standard of 2.0 mg/l. The estimated cost of equipment for fluoride removal is \$124,000. The operation and maintenance cost is estimated at \$2900. Petitioner still owes FHA approximately \$123,000. Petitioner asserts that with these high costs, the charges to the water customer would exceed the benefits and most homes would likely return to private wells. With this loss of revenue, the District could not operate the system and this result, Petitioner asserts, is not in the best interest of the public or the environment. The Agency agrees with this analysis and notes that similar effects have been observed previously.

The Agency agrees with Petitioner's allegations and further notes that fluoride removal equipment is difficult to operate and control. The Board has recognized the problems presented by fluoride removal treatment in PCB 77-349, PCB 78-53 and PCB 78-218.

The Agency agrees that the level of fluoride present in the Petitioner's water supply presents no public health danger. Regarding fluoride the USEPA guidance document states that aside from dental mottling "at levels up to 8 mg/l (and possibly higher) there have been no other known harmful effects on adults drinking such water." The document further states, "While additional studies are being conducted by EPA and the National Institute for Dental Research, exemptions should be readily available up to about four times the optimal, providing it can be shown that water related excess moderate-to-severe fluorosis is not evident."

The Agency believes that Petitioner's fluoride concentration, although above the current standard, is sufficiently low as to not require an epidemiological study as to the presence of fluorosis in the community. The Agency believes that at the level of fluoride in Petitioner's water there should be no noticeable fluorosis in the community or, if it is present, it should be at barely noticeable levels.

The Agency, along with the Department of Public Health and other states which are similarly affected, has urged USEPA to raise the applicable level of fluoride to four times the optimal level to approximately 4.0 mg/l. The Agency is not certain whether USEPA will raise the allowable level of fluoride; however, it does believe that Congress will extend the deadline for exemptions under the Safe Drinking Water Act from the current date of January 1, 1981. The Agency has received primacy of enforcement of the Safe Drinking Water Act from USEPA as of September 30, 1979, under the provisions of which the state must maintain a program at least as stringent as that of the federal government.

The Agency does recommend granting this variance with certain conditions. There is a lack of any demonstrated adverse health effects from the level of fluoride present in Petitioner's water. The cost is high and the treatment available is apparently unreliable. There is a likelihood that the standards will be changed or the time for compliance extended.

The Board agrees with the Agency. Requiring Petitioner to comply with the standard at this time would constitute an arbitrary and unreasonable hardship upon Petitioner. The Board will grant the requested variance until January 1, 1981 subject to the Agency's conditions.

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

ORDER

It is the Order of the Pollution Control Board that the Trivoli Water District is granted a variance from the 2.0 mg/l standard for fluoride in Rule 304(B)(4) of Chapter 6: Public Water Supplies until January 1, 1981, subject to the following conditions:

1. Subject to changes which may occur in the federal requirements, Petitioner will present to the Agency for its approval, within 150 days of the Order herein, a program to bring the supply into compliance with the fluoride standards by January 1, 1981.
2. Within forty-five days of the date of this Order, Petitioner shall execute and forward to the Illinois Environmental Protection Agency, Variance Section, 2200 Churchill Road, Springfield, Illinois 62706, a Certificate of Acceptance and Agreement to be bound to all terms and conditions of this variance. This forty-five day period shall be held in abeyance for any period this matter is being appealed. The form of the certificate shall be as follows:

CERTIFICATION

I, (We), _____, having read and fully understanding the Order in PCB 79-198, hereby accept that Order and agree to be bound by all of its terms and conditions.

SIGNED _____
TITLE _____
DATE _____

Mr. Goodman abstained.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 15th day of November, 1979 by a vote of 3-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board