

ILLINOIS POLLUTION CONTROL BOARD
March 4, 1982

VILLAGE OF PARKERSBURG,)
)
) Petitioner,)
)
) v.) PCB 81-195
)
) ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,)
)
) Respondent.)

OPINION AND ORDER OF THE BOARD (by J. Anderson):

This matter comes before the Board on the petition for variance of the Village of Parkersburg (Village), Richland County, filed December 11, 1981 as amended December 24, 1981. The Village seeks relief from the 1.8 mg/l maximum fluoride concentration limit of Rule 304(B)(4) of Chapter 6: Public Water Supplies. The Illinois Environmental Protection Agency (Agency) filed its Recommendation in support of variance on January 28, 1982. Hearing was waived and none has been held.

The Village serves the water needs of its 105 customers (population 268) from two wells. Water from these approximately 300 feet deep wells is pumped into an elevated storage tank, chlorinated, then pumped into the distribution system without further treatment. Well #1 had, in May, 1981, a fluoride content of 6.49 mg/l, and Well #2 a content of 6.96 mg/l. Various 1979 and 1981 samples taken from the Village's distribution system showed fluoride levels ranging from 5.5 mg/l to 7.6 mg/l.

The Village states that there is no alternate ground water supply with lower fluoride levels available to it due to the nature of the aquifer underlying several southern Illinois counties. It also states, without further elaboration, that there is no "economically feasible" alternative surface water supply within 20 miles of the Village. Of the available treatment options for fluoride removal, adsorption has been identified as the most cost-effective for the Village's system.

There is internal disagreement between the costs of such a treatment system as recited in the body of the petition and as detailed in Exhibits A and B; the Board will place its reliance on the more detailed figures of the exhibits. Installation costs are estimated to be \$169,000, and annual operation and maintenance costs to be \$26,000. To finance these expenses, each users' typical \$9.82 monthly bill would need to be increased by \$37.27.

The Village has distributed a questionnaire asking residents whether "you or any of your children experienced dental mottling... [or] fluorosis". Of the 42 responses received, 3 stated that some fluorosis had been experienced by children. However, the Village believes that fluoride at these levels presents no risks to the health of its users.

As Exhibit E to its Recommendation, the Agency has attached a January 19, 1982 memorandum regarding the fluoride levels in the Village's water. Raymond A. Kuthy, D.D.S, who is chief of the Division of Dental Health of the Illinois Department of Public Health, is of the opinion that, while the Village's water has "higher than optimal levels of fluoride...these levels should not cause any acute or chronic adverse health conditions". The Agency does not dispute the Village's allegations, and recommends that variance be granted. The Agency acknowledges that this petition falls in line with recent cases in which the Board has granted 5 year variances to small municipalities, but recommends variance only through January 1, 1984, the current deadline for exemptions under Section 1416 of the Safe Drinking Water Act, 42 U.S.C. 300(g)-5.

The Board finds that the Village had demonstrated that denial of variance would impose an arbitrary or unreasonable hardship on its water users. While the occurrence of tooth mottling raises concern, the Board finds Dr. Kuthy's opinion concerning lack of health risks highly persuasive. [See also Village of Kirkwood, PCB 81-111 (December 3, 1981).]

For the reasons stated in previous opinions, consistent with §1415 of the SDWA, which has no deadline, the Board grants variance for a five year period, subject to the conditions outlined in the attached Order. (See City of Minonk, PCB 80-136, October 2, 1980, and cases cited therein 15 p. 3.) Among these conditions is the quarterly provision of notice of this variance, a statement of the fluoride content of the Village's water and advice of possible tooth mottling effects.

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

ORDER

1. Petitioner, the Village of Parkersburg, is granted a five year variance from the 1.8 mg/l maximum fluoride concentration standard of Rule 304(B)(4) of Chapter 6: Public Water Supplies, subject to the following conditions:

a) Beginning on or about June 1, 1982, and at six month intervals thereafter, the Petitioner shall communicate with the Agency in order to ascertain whether fluoride removal techniques specifically applicable to small systems

have been developed and identified. As expeditiously after such identification as is practicable, Petitioner shall submit to the Agency a program (with increments of progress) for bringing its system into compliance with fluoride standards.

b) Petitioner shall take all reasonable measures with its existing equipment to minimize the level of fluoride in its water supply and shall not allow the fluoride concentration to exceed 8.0 mg/l.

c) On or before March 31, 1982 and every three months thereafter Petitioner will send to each user of its public water supply a written notice to the effect that Petitioner has been granted by the Pollution Control Board a variance from the 1.8 mg/l maximum fluoride standard. The notice shall state the average content of fluoride in samples taken since the last notice period during which samples were taken. The notice shall also state that "Studies to date indicate that consumption of water containing up to 8.0 mg/l fluoride does not produce adverse health effects, but may cause the cosmetic tooth mottling (browning or whitening of the teeth) effects of fluorosis in children under 12."

2. Within forty-five days of the date of this Order, Petitioner shall execute and forward to the Illinois Environmental Protection Agency, PWS Enforcement Programs, 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 the Order of the Illinois Pollution Control Board in PCB 81-195, dated _____, understand and accept the said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

Petitioner

By: Authorized Agent

Title

Date

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 4th day of March, 1982 by a vote of 4-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board