ILLINOIS POLLUTION CONTROL BOARD
July 10, 1980

VILLAGE OF ALTONA, Petitioner,	)	
v.	)	PCB 80-74
ENVIRONMENTAL PROTECTION AGENCY, Respondent.	)	

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

On April 15, 1980, the Village of Altona (Village), filed a petition for variance from the 2.0 mg/l fluoride maximum level contained in Rule 304, Chapter 6: Public Water Supplies (Chapter 6). On May 16, 1980, the Environmental Protection Agency filed a Recommendation, and on June 13, 1980, filed its First Amended Recommendation; both support variance through January 1, 1981. Hearing was waived, and none was held.

The Village of Altona, located in Knox County, currently supplies approximately 240 water users from a well approximately 820 feet deep. In March, 1980, the Village applied to the Environmental Protection Agency (Agency) for a construction permit for a water main. The Agency responded that it could not issue the permit because its records indicated that the water pumped to the distribution system contained fluoride in excess of the 2.0 mg/l limit of Chapter 6. (Pet. Ex. 1). On the basis of thirteen Agency analyses taken over the period April, 1951, to May, 1979, the Agency states that these levels have ranged from 2.2 mg/l to 2.8 mg/l, for an average of 2.49 mg/l Rec. ¶2.

The Village estimates the installation cost of the recommended activated alumina adsorption treatment system to be $185,000, and that additional annual revenues of $40,000 would be required to finance and operate such a system, necessitating a $14.00 monthly increase in user charges over the present $2.50 (Pet. ¶4). The Village therefore pleads that requiring defluoridation would impose an arbitrary and unreasonable economic hardship upon it, and in addition, states its belief that defluoridation equipment is unreliable and difficult to operate and would be of little benefit since no public health hazard exists (Pet. ¶5).

The Agency agrees that no threat to health exists at such levels, and has urged the U.S. Environmental Protection Agency to raise the allowable level of fluoride to 4.0 mg/l (Rec. ¶4-6).

The Agency acknowledges that defluoridation equipment is difficult to operate. It also acknowledges that it will be expensive, although the Agency calculates that the monthly user charges would increase by no more than $8.87. (1st. Am. Rec. ¶2).

The Agency therefore recommends that relief be granted through January 1, 1981, the deadline for exemption from the Safe Drinking Water Act (SDWA) as provided by §1416, 42 U.S.C. §300(g)-5. The Agency was informed by the United States Environmental Protection Agency (USEPA) that this position is consistent with the USEPA interpretation ofthe SDWA. The USEPA appears to believe that variances, which are defined in §1415, 42 U.S.C. 300(g)-4 and have no federal deadline, can not be granted.

However, the USEPA, recognizing that small systems are unlikely to meet the January 1, 1981 exemption deadline, has published a strategy to address this problem. In a recent "interim final policy" statement entitled "Small System Strategy for Public Water Supply Systems-Safe Drinking Water Act," (Interim Final Policy) 45 Federal Register 40222-40226, June 13, 1980, of which the Board takes official notice, USEPA has recommended that primacy states issuing SDWA exemptions should establish compliance schedules extending beyond the statutory compliance date. USEPA pledged not to enforce against these schedules "if a good faith effort [towards compliance] has been and continues to be made by the State and [utilities] system." 45FR at 40225.

The Agency has stated that it "does not believe that the State's system could accommodate this procedure, quite apart from the question of whether it is in accordance with the federal requirements themselves." In attempting to deal with this new compliance problem, the Agency proposes granting a variance until January 1, 1981, and to enter into a compliance agreement, under its own enforcement powers after January 1, 1981, if that deadline is not extended. (1st Am. Rec. 3).

The Board has addressed the problem of the 2.0 mg/l fluoride standard as applied to the small water supplier twice this year in Turnberry Utilities, Inc. v. EPA, PCB 79-257, March 20, 1980 (supplying 75 single-family homes and certain recreational facilities, raw and finished water fluoride content 2.72 mg/l) and Village of Wataga v. EPA, PCB 80-30, May 1, 1980 (supplying 390 people, finished water fluoride content averaging 2.2 mg/l). The SDWA requirements are in a state of flux: the Agency has urged that the fluoride standard be raised to 4.0 mg/l, and both the Agency and USEPA anticipate Congressional extension of the SDWA compliance deadline. Also, as explained below, fluoride treatment technologies for small systems are still being researched and developed.

Section 1415 of the SDWA, 42 U.S.C. §300(g)-4 allows for variance where no unreasonable health threat exists, and where "[b]ecause of characteristics of the raw water sources" compliance is unattainable "despite application of the best technology,

treatment techniques, or other means, which the Administrator finds are generally available (taking costs into consideration)." USEPA has advised the Agency that variance in these fluoride cases is inappropriate because "a means of treatment has been identified by the Administrator in the USEPA publication "Manual of Treatment Techniques for Meeting the Interim Primary Drinking Water Regulations," and that treatment has not been put in place by Petitioner" (Rec.2).

In Turnberry Utilities, supra, at p.4, the Board observed that the Manual has not been promulgated as a regulation. Yet, even were such the case, the Manual itself disclaims its applicability to small systems. Specifically, the Introduction states:

> "One difficulty encountered in preparing this document was the lack of information on treatment technology applicable to the small water utilities serving 1,000 consumers or less. Research is now underway in an attempt to fill that void; because the research has not been completed, this document does not contain the information. Cost data were another difficulty. It is impossible to prepare treatment cost information that is universally applicable to all utilities. The authors, therefore, recognize that the costs contained in this document may not apply to all situations." (p.1, emphasis added)

The Board has received no new information which would cause it to retreat from its findings in Turnberry and Wataga that fluoride removal techniques are not "generally available"; this finding is in fact buttressed by USEPA observations in Interim Final Policy that "Many of the available technologies for the removal or reduction of contaminants are not directly applicable to small systems," 45FR at 40223. Variance relief is the only and the proper mechanism whereby sufficient time as well as protection from enforcement can be granted to a small system to allow it to wait for stabilization of requirements and for research and development of reliable, cost effective treatment systems.

An exemption would give petitioner little relief from the dilemma in which it finds itself. The Village would be forced to immediately begin development of a compliance schedule to correct a slight, naturally occurring violation of a fluoride standard in a situation where 1) no health hazard is present, 2) a change in that standard has been recommended, 3) postponement of statutory compliance deadlines is expected, 4) timely compliance with existing statutory deadlines is impossible, and 5) cost effective treatment technology applicable to its very small system is in the process of being developed. Even if such a schedule were to be developed, the Village would continue to be exposed to the threat of a federal enforcement action in the event that a) USEPA questions the good faith of the Village's efforts or modifies or abandons its recent

non-enforcement policy, or b) this policy is successfully challenged in court. To reach such a result-which the Board need not merely by giving the language of §1415 its natural meaning-would be unreasonable.

Therefore, a five-year variance is granted, subject to the conditions outlined in the attached order.

This Opinion constitutes the Board's finding of fact and conclusion of law in this matter.

ORDER

Petitioner, the Village of Altona is granted a variance from the 2.0 mg/l maximum fluoride concentration standard of Rule 304 of Chapter 6: Public Water Supplies, subject to the following conditions:

1. This variance will expire 5 years from the date of this order, or at such earlier time as fluoride standards are revised.

2. Subject to prior revision of fluoride standards, by January 1, 1981, the Petitioner shall submit to the Agency a report on the availability of, and economic feasibility of utilizing, alternative water sources which could be blended with its current well sources to reduce the fluoride content of the finished water.

3. Subject to prior revision of fluoride standards, beginning on or about January 1, 1981, and at six month intervals thereafter, the Petitioner shall communicate with the Agency in order to ascertain whether fluoride removal techniques specifically applicable to very 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.

4. 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 4.0 mg/l.

5. On or before September 30, 1980, 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 2.0 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 state that consumption of water containing excessive amounts of fluoride can result in fluorosis and that dental mottling can occur at levels in excess of 4.0 mg/l.

6. Petitioner and the Environmental Protection Agency shall devise a mutually agreeable schedule for sampling of Petitioner's public water supply.

7. 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 obeyance 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 80-74, 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 were adopted on the 10th day of July, 1980 by a vote of 5-0.

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