ILLINOIS POLLUTION CONTROL BOARD November 20, 1980

VILLAGE OF BR	IMFIELD,)	
	Petiti	oner,))	
	v.) PCB	80-183
ENVIRONMENTAL	PROTECTION A	GENCY,	<i>)</i>))	
	Respon	ident.	,)	

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

This matter comes before the Board on the petition for variance filed by the Village of Brimfield (Village) on October 3, 1980 as amended November 3, 1980. The Village seeks variance from the 2.0 mg/l fluoride maximum limitation contained in Rule 304(B) of Chapter 6: Public Water Supplies (Chapter 6). On October 30, 1980, the Environmental Protection Agency (Agency) recommended that variance be granted, subject to conditions. Hearing was waived, and none has been held. No objections to the petition have been received by the Agency or the Board, which is giving this matter expedited consideration pursuant to the Village's request of November 6, 1980.

The Village of Brimfield, which is located in Peoria County, daily supplies an average of 63,000 gallons of water, according to Agency estimates, from one 1300 foot deep well to its approximately 850 residents. Variance is sought in order to extend the Village's water distribution service to 10 lots within the Village, where four homes have already been built and sold. The Village's request for the necessary permit was denied, as the Village's water contains a fluoride concentration of 3.3 mg/l (Pet. 1, Rec. 2, 3).

The Village states, without elaboration, that an engineering study performed in 1974 indicates that there are no alternate shallow well or surface supplies of water sufficient to replace or adequately supplement its deep well source. Investigation of costs of three fluoride removal techniques has led the Village to conclude that they are financially infeasible. The capital costs for activated alumina filtration were estimated to be \$200,000, additional yearly financing, operation, and maintenance expenditures to be \$40,000, and monthly cost increases to its 350 users to be \$9.61. Lime softening treatment figures given were \$375,000 in capital costs and \$68,000 in yearly expenditures, at a monthly user increase of \$16.23. Costs for reverse osmosis were estimated as \$300,000 capital costs and \$60,000 in yearly expenditures, at a monthly user increase of \$14.42 (Pet. 2-3).

The Village believes that continued consumption of water containing 3.3 mg/l fluoride will have no adverse health effects on its residents, who have consumed this water since 1953. The Board takes note of correspondence from both the Village and Oakley Builders, Inc., developer of the 10 lots needing water service. The letter from the Village acknowledges that permit denial should have been anticipated by both the builder and developer, but also states that four buyers of the lots will suffer financial and personal hardship if occupancy of their new homes is postponed by delay in commencement of water service (Pet. 3, Letters of October 17 and November 6, 1980).

The Agency believes that the Village has overestimated capital costs for the three treatment methods by, respectively, \$110,000 (alumina), \$55,000 (lime), and \$60,000 (reverse osmosis), and has overestimated yearly operation and maintenance costs for lime softening by \$6,000 but underestimated yearly costs for alumina filtration and reverse osmosis by \$3,000 and \$30,000. The Village's conclusion as to the unavailability of alternative water sources is not challenged, although the Agency desires more information in this regard (Rec. 3, 4, Ex. B-H).

The Agency nonetheless recommends grant of variance, as no health danger has been demonstrated and treatment costs would impose an unreasonable economic hardship to this small public water supply. The Agency reminds the Board that it has urged USEPA to raise the maximum fluoride level to 4.0~mg/l. 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 believes variance can be recommended only through January 1, 1981, the current deadline for exemptions under Section 1416 of the Safe Drinking Water Act, 42~U.S.C.~300(q)-5.

The Board finds that the Village has demonstrated that immediate compliance would impose an arbitrary and unreasonable hardship both on its current water users and the lot owners who seek service. For the reasons stated in previous opinions, 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 at p. 3.)

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

ORDER

- 1. Petitioner, the Village of Brimfield, is granted a variance from the 2.0 mg/l maximum fluoride concentration standard of Rule 304(B) of Chapter 6: Public Water Supplies, subject to the following conditions:
 - A. This variance will expire 5 years from the date of this order, or at such earlier time as fluoride standards are revised.

- B. 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 source to reduce the fluoride content of the finished water.
- C. Subject to prior revisions 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 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.
- D. 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.
- E. On or before December 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.
- 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
	cion Control Board in PCB 80-183,
	understand and accept the said
Order, realizing that such accerditions thereto binding and enfo	stance renders all terms and con- proceable.

Petitioner

By:				
	Title			gamentari (1884) anganik ajiti (1844), angangan agang
	Date	alan 1870 taga kalif 166 168 187 Sagangan (da 1970) an	 	

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 2010 day of 1980 by a vote of 5-0.

Christan L. Moffeth Clerk
Illinois Pollution Control Board