ILLINOIS POLLUTION CONTROL BOARD
August 15, 1985

VILLAGE OF WATAGA,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 85-20
	)	
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	
	)	
Respondent.	)	

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

This matter comes before the Board upon a variance petition filed February 11, 1985 as amended on March 1, 1985 and June 4, 1985. Petitioner requests extension of a previous variance for a period of five years from the maximum allowable concentration of 2.0 mg/l for fluoride in its finished drinking water (35 Ill. Adm. Code 604.203(a)) or alternatively from the effect of Restricted Status as it relates to fluoride (35 Ill. Adm. 602.105(a) and 602.106). The Village previously sought and was granted a variance from the fluoride standard in PCB 80-30, May 1, 1980 which expired on March 31, 1985. The Illinois Environmental Protection Agency (Agency) filed its recommendation on April 4, 1985 recommending denial of the variance for lack of information. An amended recommendation was filed on July 2, 1985 recommending that variance from Section 602.105 as it relates to fluoride be granted, but that variance as it relates to the health-based standard for fluoride itself be denied. Hearing was waived and none was held.

The Village of Wataga is located in Knox County, Illinois. Its public water supply serves approximately 386 consumers. The water supply facilities consist of a 840 foot deep well, a 150,000 gallon elevated storage tank, a 16,000 gallon water treatment tank and the distribution system. Water is pumped, aerated for hydrogen sulfide removal and discharged into the treatment holding tank. It is then chlorinated and discharged through a wet riser pipe to the elevated storage tank. From there, the water is received by the distribution system. During 1983 and 1984, the fluoride levels in the finished water ranged from from 2.13 mg/l to 2.54 mg/l.

Wataga contends, and the Agency agrees, that to require the Village to immediately comply with the fluoride standard would impose an arbitrary or unreasonable hardship. This is because the compliance options available to the Village are asserted to be technically infeasible and/or economically unreasonable. The petition discusses three options. One alternative is the use of

activated alumina adsorption as a treatment technique. The installation cost of this technology is estimated at $400,000 with annual revenue requirements to pay for and operate the installation of $94,250. This translates into an estimated increase of $20 per user per month for defluoridation. The Board, in its previous order, noted that this is not a generally available treatment technology.

The second alternative discussed is the construction of a water main to Wataga from the City of Galesburg, a distance of approximately seven miles. No cost estimate is provided but the Agency notes that it "undoubtedly" would be costly. Wataga also notes that the cost would be even higher than in 1980 when the Board and Agency concluded it was unreasonable.

The third alternative considered is the drilling of additional wells from shallow aquifers for blending purposes. The technical feasibility of this alternative is questionable as the water quality of the shallow aquifers in the area is poor due to significant iron content. Additionally, the wells may not be capable of producing enough water to make a blending program successful. Aside from these technical objections the costs associated with this alternative, including drilling (approximately $40,000), land acquisition, equipment, engineering design and project supervision fees, would result in an increase of water service charges of between $5.00 and $10.00 per month.

Wataga argues that to require any of these alternatives would impose an arbitrary or unreasonable hardship especially in light of the minimal adverse health impacts expected at these fluoride concentrations. In its order granting Wataga's previous variance, the Board found:

> The finished water shows an average fluoride level of 2.2 mg/l in excess of the standard of 2.0 mg/l . . . . The Agency agrees that fluoride shown in Wataga's water presents no threat to health (Rec. 2). Aside from dental mottling, there are no known harmful effects from drinking water at levels up to 8 mg/l fluoride.

In connection with this petition, the Agency states that there is no recent information to alter this conclusion (Rec. at par. 12). Moreover, the fluoride standard is in a state of flux and may be revised upwards to 4.0 mg/l. (See attachment to Petition, Letter to Mr. Hillemeier)

The Board finds that at these concentration levels, the hardship imposed by requiring immediate compliance outweighs the minimal environmental or public health impact.

Remaining at issue is the question whether variance from the health based standard for fluoride or variance from the effects of being on Restricted Status alone should be granted. The Village has stated its request for relief in the alternative and

although no arguments are made or preferences given for either request, the Board assumes that Wataga would prefer variance from the health based standard since it affords the most complete relief. The Agency, however, recommends that variance from the health based standard be denied preferring that the Board grant variance only from Restricted Status.

The Agency's recommendation stems from a long-standing disagreement with USEPA over the proper interpretation of the Safe Drinking Water Act (SDWA), 42 U.S.C. Sec. 300(f) et seq. and regulations pursuant thereto, which provides for a federal variance from the maximum contaminant levels (MCL) for drinking water supplies upon a finding that:

> a) Because of characteristics of the raw water sources which are reasonably available to the system, the system cannot meet the requirements respecting the maximum contaminant levels of the drinking water regulations despite application of the best technology, treatment techniques, or other means, which the [USEPA] Administrator finds are generally available (taking costs into consideration); and
>
> b) The granting of a variance will not result in an unreasonable risk to the health of persons served by the system. Section 1415 of the SDWA, 42 U.S.C. 300g-4(a)(1)(A).

Although USEPA has published a "Manual for Treatment Techniques for Meeting the Interim Primary Drinking Water Regulations" (hereinafter referred to as "Manual"), it has been the Board and Agency's position that the Manual does not meet the requirement that the Administrator issue regulations under the SDWA. Hence, the Board has determined that it has authority to grant variances to both large and small water supplies even where no treatment technology has been installed providing there is a demonstration of an arbitrary or unreasonably hardship.

The Agency notes, however, that USEPA disagrees with this determination citing 45 Fed. Reg. 56633, July 31, 1980, wherein USEPA maintains that the Manual and the establishment of the MCLs satisfies the "rule-making" requirement. Thus, it is apparently USEPA'S stance that variances may only be granted where the application of the best treatment techniques or technology is required. Should USEPA determine that "a state in a substantial number of instances, abused its discretion in granting variances" it could seek to revoke the variances after public hearing. In addition, USEPA could seek to revoke the determination that the state has primary enforcement responsibility, which would occasion a loss of approximately one million dollars in federal funding for the state.

The Agency believes that a variance from Restricted Status, because it is not a variance from the national primary drinking water regulations themselves, avoids the risk of loss of primacy while addressing the concerns of the water supply to no longer be under Restricted Status. Variance from Restricted Status does not, however, insulate the supply from the possibility of federal enforcement or enforcement proceedings brought by third parties under the Illinois Environmental Protection Act and regulations pursuant thereto for violations of the health based standard.

The Board finds that in this instance full relief from the health-based standard should be granted. First, the Board notes that even were the Manual to rise to the level of "rule-making" it specifically disclaims its applicability to small systems such as Wataga's. Specifically, the Manual's 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)

Secondly, the Board believes that, in this factual situation, a five-year variance from the fluoride standard of 35 Ill. Adm. Code 604.203(a) is warranted. The issue is not whether Wataga need ever comply with the national regulations, but rather how it may best reach compliance in a finite period, given the nature of its current raw water sources and the lack of reliable alternate sources or treatment technologies for small supplies. The Board notes that the variance as granted is in the nature of a compliance order, requiring activities which the Village has agreed to perform in order to reach compliance within a five year period. However, in the interest of eliminating any possible delay or uncertainty the Board will also grant variance from Restricted Status (35 Ill. Adm. Code 602.105(a) and 602.106) although variance from the health-based standard makes relief from this sanction for non-compliance superfluous.

Balancing the great expense to comply at this time with the minimal threat to the public health, the Board finds that requiring immediate compliance with the fluoride standard would constitute an arbitrary or unreasonable hardship. Accordingly, variance is hereby granted to the Village of Wataga from the provisions of 35 Ill. Adm. Code 604.203(a), 602.105(a) and 602.106.

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

ORDER

The Village of Wataga is hereby granted variance from 35 Ill. Adm. Code 604.203(a), 602.105(a) and 602.106 subject to the following conditions:

1. This variance shall expire upon attainment of compliance with the fluoride standard or August 15, 1990, whichever occurs first.

2. Petitioner shall make all reasonable efforts to identify a feasible compliance method for achieving compliance with the fluoride standard.

3. As expeditiously after identification of a feasible compliance method as is practicable, but in any event no later than three years after grant of the variance, Petitioner shall submit a program (with increments of progress) for bringing its system into compliance with the fluoride quality standard to the Agency's Division of Public Water Supplies, Permit Section at 2200 Churchill Road, Springfield, Illinois 62706.

4. Petitioner shall achieve compliance within two years from the date of submission of the compliance program described above, but in any event no later than August 15, 1990.

5. That pursuant to 35 Ill. Adm. Code 606.201, Petitioner shall 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 for fluoride (35 Ill. Adm. Code 604.203(a)) in the first set of water bills issued after the grant of this variance and every three months thereafter.

6. That Petitioner shall take all reasonable measures with its existing equipment to minimize the level of fluoride in its finished water, and shall at all times maintain a fluoride concentration of less than 4 mg/l.

7. That within forty-five days of the date of this Order, Petitioner shall execute and forward to E. William Hutton, Enforcement Programs, Illinois Environmental Protection Agency, 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 during which this matter is being appealed. The form of certification shall be as follows:

CERTIFICATION

I, (We) _____, hereby accept and agree to be bound by all terms and conditions of the Order of the Pollution Control Board in PCB 85-20, August 15, 1985.

_____
Petitioner

_____
Authorized Agent

_____
Date

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 15th day of August, 1985, by a vote of 7-0.

Dorothy M. Gunn
Dorothy M. Gunn, Clerk
Illinois Pollution Control Board