

ILLINOIS POLLUTION CONTROL BOARD  
April 15, 1982

VILLAGE OF CAROL STREAM, )  
 )  
 ) Petitioner, )  
 )  
 ) v. ) PCB 81-205  
 )  
 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
 ) Respondent. )

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

This matter comes before the Board on the December 23, 1981 petition for variance filed by the Village of Carol Stream (Village). The Village seeks variance from the 1.0 mg/l barium concentration limitation of Rule 304(b)(4) of Chapter 6: Public Water Supply. On February 1, 1982 the Illinois Environmental Protection Agency (Agency) filed its Recommendation in support of grant of variance. Hearing was waived, and none has been held, since the one objection to this variance was withdrawn after the objector's receipt of the Recommendation.

The Village of Carol Stream, DuPage County, currently supplies the water needs of its approximately 15,500 residents from 4 wells, two deep and two shallow, an additional shallow well having been phased out of service. One of the deep wells, located in the Spring Valley subdivision, Well #5, supplies about 31% of the Village's water demands during the peak periods and is the only well not in compliance with the barium standards. Nine samples of the raw water from this well taken in 1979-1981 have shown barium concentrations ranging from 1.7 to 5.4 mg/l. 1981 samples of water from 14 points in the Village's distribution system outside of the Spring Valley area show 2 points at which barium levels exceed the 1.0 mg/l standard, with S 6 showing 3.23 mg/l and S 8 showing 1.63 mg/l

The Village's consulting engineers, Baxter and Woodman, Inc., have investigated various compliance options. Use of Well #5 cannot be discontinued without replacing it with an alternative water source, given the Village's increasing water needs. The drilling of replacement shallow wells, and installation of iron removal equipment if necessary, could cost between \$600,000 and \$1,000,000 depending upon the number of replacement wells needed and the iron content of the wells' water. Due to the nature of the Village's distribution system, blending the water from Well #5 with that from the other wells would require an outlay of \$3,000,000 for additional water lines and distribution mains.

Costs of water softening were estimated to be \$750,000 for a zeolite system and \$150,000 for a lime softening plant, with annual operation and maintenance costs running from \$100,000 to \$200,000.

The preferred compliance option is replacement of the water from the deep wells with Lake Michigan water; a commitment for discontinuation of the use of the deep wells was in fact made by the Village in conjunction with its receipt of a Lake Michigan water allocation to commence in 1985. The Village has joined the regional DuPage Water Commission, which currently anticipates being able to transmit Lake Michigan water to its 26 member communities and to the County of DuPage by 1985. In short, the Village seeks variance to continue to use its well system only so long as it takes to implement this favored compliance option.

As the Village is part of the regional water supply Commission, the Agency recommends grant of variance until January 1, 1986, consistent with Section 1416 of the Safe Drinking Water Act. The Agency states in support of its conclusion that it believes that consumption of the Village's well water will impose no threat to the health of its water users.

In light of the high cost to the Village of treatment of its current water supply, the fact that consumption of barium at the levels in the Village's water will be unlikely to threaten health, and finally the Village's demonstrated commitment to the regional water system, the Board finds that denial of variance would impose an arbitrary or unreasonable hardship. The requested variance from Rule 304(B)(4) of Chapter 6 is hereby granted until January 1, 1986, subject to the Village's continuing as part of the regional DuPage Water Commission and subject to the other conditions outlined in the attached Order.

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

#### ORDER

1. Petitioner, the Village of Carol Stream, is hereby granted variance from the 1.0 mg/l barium standard of Rule 304(B)(4) of Chapter 6: Public Water Supplies until January 1, 1986, subject to the following conditions:

a. Petitioner shall continue to perform its obligations as outlined in the DuPage Water Commission Agreement, as it may be from time to time amended, and shall replace its current water supply with Commission-supplied water as expeditiously as is practicable. This variance shall terminate in the event that the Village ceases to continue as a part of the DuPage Water Commission.

b. Petitioner shall take all reasonable measures with its existing equipment to minimize the level of barium in its finished water, which shall in no event be allowed to exceed 6.0 mg/l.

c. Pursuant to Rule 313(D)(1) of Chapter 6, on or before June 30, 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 1.0 mg/l maximum barium standard. The notice shall state the average content of barium in samples taken since the last notice period in which samples were taken.

2. Within forty-five days of the date of this Order, Petitioner shall execute and forward to the Illinois Environmental Protection Agency, 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:

CERTIFICATE

I, (We), \_\_\_\_\_, having read the Order of the Illinois Pollution Control Board in PCB 81-205, 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 15<sup>th</sup> day of April, 1982 by a vote of 50.

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