

ILLINOIS POLLUTION CONTROL BOARD
November 19, 1981

VILLAGE OF LAKE ZURICH,)
)
) Petitioner,)
)
) v.) PCB 81-92
)
 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 filed by the Village of Lake Zurich (Village) on June 1, 1981 as amended August 19, 1981. The Village seeks variance from the 15 pCi/l gross alpha particle activity limitation of Rule 304 (C)(1)(b) of Chapter 6: Public Water Supplies. On September 30, 1981 the Illinois Environmental Protection Agency (Agency) filed its Recommendation in support of grant of variance. No hearing has been held, as hearing was waived by the Village, and as the objection filed June 22 was withdrawn on November 9, 1981.

The Village of Lake Zurich, Lake County, population approximately 7500, supplies its water users with water drawn from 3 deep wells. Primary Well #3 is 1333 feet deep, and back-up wells #5 and #8 (1135 and 1373 feet deep) are open to, among others, the Glenwood-St. Peter sandstone aquifer which contains more radium than do other, shallower aquifers in Illinois [See Village of Lemont v. IEPA, PCB 80-48 (May 1, 1980)]. A March, 1981 report of tests done on a composite sample of water taken from the Village's distribution system in November, 1979 and January, 1981 shows gross alpha particle activity of 21.9 ± 4.94 pCi/l, and gross beta particle activity of 21.6 ± 2.39 pCi/l (Agency Rec.). Also, tests of a sample drawn from Well #8 on April 21, 1981 shows gross alpha of 21.5 ± 5.19 pCi/l and gross beta of 23.5 ± 4.11 pCi/l (Amend. Pet.). No testing has been done for radium 226 or 228.

In connection with drilling Well #8 in 1980, the Village explored but had to abandon the idea of a shallow (535 feet) well, as the aquifer could not produce an adequate amount of water. Thus, it has no source of water with lower radioactivity to blend with the waters of higher radioactivity from its deep wells.

The Village believes that its other compliance option is installation of a sodium zeolite or other water softening process. Capital costs are estimated to be \$850,000, and annual operation and maintenance costs to be \$144,000. The Village finds this option undesirable because, as it states without elaboration, it will increase user costs "more than is economically feasible" given a large increase in sewer rates due to costs related to completion of a new sewage treatment plant within the last year. In addition, the softened water could be too soft for general uses, and the softening process itself can create backwash water disposal and other problems.

Finally, the Village remarks that the radiological water quality limits are being reviewed at the federal level, and that it believes that no immediate threat to the health of its water users is being posed. The Agency concurs with this belief, and with all facts presented by the Village.

Based on the high costs of compliance as balanced against the lack of an immediate health threat, the Board finds that denial of variance would pose an arbitrary or unreasonable hardship. Based on the size of the Village's system and consistent with §1416 of the federal Safe Drinking Water Act, variance is granted through January 1, 1984 subject to conditions.

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

ORDER

1. Petitioner, the Village of Lake Zurich, is granted a variance from the 15 pCi/l gross alpha particle activity limit of Rule 304(C)(1)(b) of Chapter 6: Public Water Supply until January 1, 1984, subject to the following conditions:

a. Petitioner shall, in consultation with the Agency, continue its sampling program to determine as accurately as possible the level of radioactivity in its wells and finished water. Testing for radium 226 and 228 shall be commenced.

b. As expeditiously after identification of a feasible compliance method as is practicable, but no later than January 1, 1983, Petitioner shall submit to the Agency a program (with increments of progress) for bringing its system into compliance with radiological quality standards.

c. Pursuant to Rule 313(D)(1) of Chapter 6, on or before January 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 15 pCi/l maximum gross alpha particle activity standard. The notice shall state the average content of gross alpha particle activity in samples taken since the last notice period during 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, 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:

CERTIFICATE

I, (We), _____, having read the Order of the Illinois Pollution Control Board in PCB 81-92, 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 19th day of November, 1981 by a vote of 50.

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