

ILLINOIS POLLUTION CONTROL BOARD
April 29, 1982

CITY OF WENONA,)
)
) Petitioner,)
)
) v.) PCB 82-11
)
) ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,)
)
) Respondent.)

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

This matter comes before the Board on the February 3, 1982 petition for variance filed by the City of Wenona (City). The City seeks a five year variance from the 15 pCi/l gross alpha particle activity limitation of Rule 304(C)(1) of Chapter 6: Public Water Supplies. On March 18, 1982 the Illinois Environmental Protection Agency (Agency) moved to file its Recommendation in support of grant of variance until January 1, 1984 instanter, which motion is granted. Hearing was waived and none has been held.

The City of Wenona, Marshall County, supplies water to its 500 users (population approximately 1,100) from one primary deep (1837 feet) well pumping approximately 100,000 gallons per day. One additional shallow (62 feet) well exists, but its water is not further treated at the City's treatment plant and is used only for emergencies as its long term yield has been only 25 gallons per minute. May 7, 1981 test results from a composite of four distribution samples showed gross alpha particle activity levels of 42.9 ± 9.86 pCi/l, and gross beta levels of 31.1 ± 9.62 pCi/l. No tests for radium 226, 228 or uranium were performed.

Based on its own experience since 1930 in attempting to locate shallow aquifer water sources, and on reports of the State Water and Geological Surveys, the City believes no alternative shallow groundwater supply exists with which to replace its deep Well #5. No sufficient alternative surface water supplies have been located. Accordingly, the City is of the opinion that compliance can be achieved only through treatment of its deep well water by a lime softening method, since the zeolite process would add to the water's already high sodium content. A softening plant is estimated to require capital expenditures of \$270,000, and additional annual operation, maintenance, and sludge disposal fees of \$20,000. The City alleges that achieving compliance in this manner would impose an arbitrary or unreasonable hardship on

its citizens. Financing of bonds for the initial capital cost would require a 25% to 34% increase in property taxes (currently \$5.38 per \$100 assessed valuation). Monthly water bills would also be raised to cover the increase in annual expenditures, from the current \$8.62 to \$12.45 (44%). Imposition of these costs is viewed as particularly onerous as no adverse health effects have been observed, and as the City is aware that some experts have recommended to USEPA that the gross alpha particle activity limitation can safely be raised to 90 pCi/l.

The Agency does not disagree with the facts and assertions presented by the City. The Agency recommends that variance relief be made available only through January 1, 1984, the deadline date for exemptions under §1416 of the Safe Drinking Water Act (SDWA).

The Board observes that neither the City nor the Agency has considered or discussed the possibility of blending the waters of the shallow well with those of the deep well, so as to deliver finished water in compliance with the radiological quality standards. Based on the information presented, the Board cannot assess the economic feasibility of this option, but does note that the shallow well is capable of pumping roughly one-third (36,000 gpd) of the water pumped by the deep well (100,000 gpd). The Board does find, however, that to require immediate compliance would impose an arbitrary or unreasonable hardship, particularly since there would appear to be little immediate risk to health from consuming the City's water if variance is granted (see Village of Lemont v. IEPA, PCB 80-48, April 30, 1981). The Board will therefore grant a short-term variance subject to conditions, until January 1, 1983, during which time the City shall investigate the blending option.

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

ORDER

1. Petitioner, the City of Wenona, 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, 1983, 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. Petitioner shall investigate the possibility and economic feasibility of blending water from its shallow well with that of its deep well to reduce the radiation level in its finished water. Beginning on or about August 1, 1982, and at six month intervals thereafter, Petitioner shall communicate with the Agency to determine whether gross alpha particle removal techniques specifically applicable to small

systems have been developed and identified. As expeditiously after identification of a feasible compliance method as it practicable, but no later than April 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, in its first set of water bills or within three months after the date of this Order, whichever occurs first 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 82-11, 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 29th day of April, 1982 by a vote of 5-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board