

ILLINOIS POLLUTION CONTROL BOARD  
May 27, 1982

COUNTY OF DuPAGE, )  
 )  
 ) Petitioner, )  
 )  
 ) v. ) PCB 82-24  
 )  
 ) ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
 ) Respondent. )

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

This matter comes before the Board on the March 11, 1982 petition for variance filed by the County of DuPage (County). The County seeks variance for "at least one year" from the 15 pCi/l gross alpha particle activity limitation of Rule 304(C)(1) of Chapter 6: Public Water Supply. On April 5, 1982 the Illinois Environmental Protection Agency (Agency) filed its Recommendation in support of grant of variance until January 1, 1984. Hearing was waived and none has been held.

The County, through its Department of Public Works, supplies drinking water to the 5,425 residents (1981 Agency estimate) (1,550 service connections) of the Rosewood Trace Subdivision, which is located in an unincorporated area of southeastern DuPage County adjacent to the Village of Burr Ridge. The County seeks variance to continue use of deep (1,610') Rosewood Trace No. 1 Well and its distribution system. A composite of four quarterly distribution system samples taken between September 24, 1980 and July 14, 1981 showed a gross alpha level of  $22.0 \pm 4.45$  pCi/l. However, single samples taken from two points in the distribution system on September 24, 1980 and December 21, 1981 showed gross alpha levels in pCi/l, respectively, of  $7.11 \pm 2.74$  and  $10.8 \pm 3.55$ . The Agency also notes the existence of a shallow (300') well, which "is on standby". The pumping capacity and the gross alpha particle activity levels of each well have not been provided. The County states that it has received no test results concerning radium 226 and 228 levels.

In support of its petition, the County states that it has considered three compliance options. One option would be to construct treatment facilities, construction costs for which are estimated to be \$133,000. Another option would be to replace the well water by, for instance, Lake Michigan water, for which the County has received an allocation (the size and initial availability of which was not specified). The petition indicates,

without elaboration, that Lake Michigan water would be delivered by the DuPage Water Commission, but no timetable or cost estimates concerning this option were provided. A third short term solution would be a blending approach, in which water from (unspecified) other wells would be used to dilute the water of Well No. 1, with estimated construction costs of \$25,000 and an estimated implementation timetable of 5 months. The County intends to obtain, but has not yet done so, professional services "to assist in reviewing and evaluating this situation and to prepare recommendations for resolving this problem". Subject to receipt of a professional recommendation, the County states that it "presently anticipates" implementation of a blending program to achieve compliance.

The County asserts that denial of variance would impose an arbitrary or unreasonable hardship because "there is a great need for the expansion of the [Rosewood Trace] water distribution system in order to serve the domestic and fire protection requirements of the local population"; however, the Village does not provide any details supporting these bare conclusions. The Village believes that to require the expenditure of funds for immediate installation of treatment facilities would not be in the public interest, particularly since such facilities "would probably" be abandoned when Lake Michigan water is obtained.

The Agency generally agrees with the facts asserted in the petition, and states its belief that grant of variance "will not result in an unreasonable risk to health". The Agency therefore recommends grant of variance until January 1, 1984 subject to conditions, including engagement of professional consulting services.

While the two single samples indicate compliance with Rule 304(C)(1), the Board finds that the result of the test of the composite sample is determinative of non-compliance for the purposes of justification and need for Board consideration of the County's variance request (see Village of Round Lake v. IEPA, PCB 82-17, May 13, 1982). The Board does not find the petition's lack of data concerning compliance options to be a fatal deficiency in light of the Village's asserted willingness to develop such information.

The Board finds 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 Village'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 until June 1, 1983, subject to conditions, during which time the County shall investigate blending and other compliance options. (The County should note that should it join a regional water supply system such as the DuPage Water Commission, variance relief is available through January 1, 1986.)

The Board notes that this is the second recent case in which the gross alpha readings as indicated by tests of composite samples is significantly higher than tests of single samples (see Village of Round Lake, supra). It is discomfoting that the discrepancies were explained in neither case and the Board is concerned that these results may indicate flaws in the technique for holding or analyzing composite samples. Given the divergent sample results, it is even more than usually important that gross alpha testing continue, and that radium testing commence, and the Board will so order.

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

#### ORDER

1. Petitioner, the County of DuPage, 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 to allow continued operation of Rosewood Trace No. 1 Well until June 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. On or before September 15, 1982 the Petitioner shall secure professional assistance (either from present staff or an outside consultant) in investigating compliance options, including the possibility and feasibility of achieving compliance by blending water from its shallow well with that of its deep well. On or before October 15, 1982, evidence that such professional assistance has been secured shall be submitted to Wayne Weimerslage, Enforcement Programs, at the address stated in paragraph 2, below.

c. As expeditiously after identification of a feasible compliance method as is practicable, but no later than April 1, 1983, Petitioner shall submit a program (with increments of progress) for bringing its system into compliance with radiological quality standards to the Agency's Division of Public Water Supplies, FOS, at the address stated in paragraph 2, below.

d. 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 82-24, 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 27<sup>th</sup> day of May, 1982 by a vote of 5-0.

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