

ILLINOIS POLLUTION CONTROL BOARD
May 9, 1986

LAKE COUNTY PUBLIC WORKS)
DEPARTMENT, VERNON HILLS WATER)
SUPPLY SYSTEM,)
)
Petitioner,)
)
v.) PCB 86-35
)
)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Respondent.)

DISSENTING OPINION (by J. D. Dumelle):

My reasons for dissenting lie in the grant by the majority to the lifting of restricted status for the two residential developments (c) and (e). See majority Opinion, p. 2.

These new residences will expose their residents, which could well include babies, young children, and old people to drinking water radium levels above the State and National health-based levels.

The office buildings and the shopping plaza would not result in such 24-hour-a-day and 7-day-a-week exposure and I would have voted for their construction.

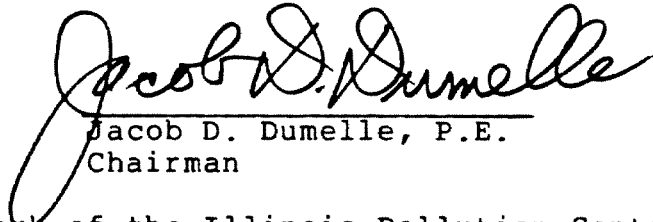
What is the risk from radium in drinking water? The Federal Register of August 14, 1975 (Vol. 40, 153, p. 34325) gives it as "between 0.7 and 3 fatal cancers annually per million exposed persons." Note the key word "annually." Because, it is an annual risk the Agency's assertion of "no significant health risk ... for the time period of this ... variance" is flawed.

The combined radium levels in the Vernon Hills water system are 9.4 pCi/l or 88% over the 5.0 pCi/l standard. Applying this factor to the fatal cancer incidence rate given above results in a range of 1.3 to 5.6 cases annually per million exposed persons.

The two new subdivisions here at issue total 130 housing units. Using three persons per unit, the new population exposed will be 390. Each year of exposure to the high radium in the drinking water brings with it a 1-in-300,000 chance of a fatal cancer to any one person on the average.

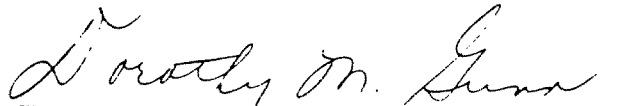
Finally, since it will realistically take seven or more years to bring Lake Michigan water to Vernon Hills the odds of a fatal cancer in this new group of exposed residents becomes about 1-in-50,000 (allowing one year for the actual construction of the new homes) over the six year period.

The risk of cancer from the radium in this drinking water is finite and real. I would have allowed the variance only for the non-residential construction.



Jacob D. Dumelle, P.E.
Chairman

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Dissenting Opinion was filed on the 15th day of May 1986.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board