

ILLINOIS POLLUTION CONTROL BOARD
March 8, 1990

CITY OF BATAVIA,)
)
 Petitioner,)
)
 v.) PCB 89-183
) (Variance)
 ILLINOIS ENVIRONMENTAL)
 PROTECTION AGENCY,)
)
 Respondent.)

CONCURRING OPINION (by B. Forcade and J.D. Dumelle):

In this proceeding, Batavia is seeking relief from restricted status due to combined radium. The concentration of radium in the water supply is never clearly stated, but it appears that Batavia is asserting concentrations between 7.5 and 9.5 pCi/l. The most recent MAC violation printout from the Agency shows a value of 21.2 pCi/l. Braidwood's original variance petition asserts minimal environmental impact due to these levels based on the testimony of Drs. Toohey and Stebbings in R85-14. That testimony does not support such a conclusion for values above 20 pCi/l. While we would strongly disagree with the methods used by Dr. Toohey to derive his estimates, he only addressed levels up to 20 pCi/l:

To summarize, in my professional opinion, there will be no adverse health risk from granting the Agency proposed rule changes to those municipalities which have radium in their drinking water at levels from 5 to and including 20 pCi/l or which have gross alpha particle activity in their drinking water at levels from 15 to and including 60 pCi/l.

(R85-14; Agency Exhibit #13 Prepared Testimony of Richard E. Toohey, Ph. D.; August 2, 1985, p. 7).

In point of fact, the Agency had also clearly limited its support regarding a relaxation of restricted status to those communities with combined radium levels at or below 20 pCi/l:

30. The Agency believes the numerical limits for radium and gross alpha activity concentrations should be four times higher

than they are now before the effects of restricted status should be imposed, that is, 20 pCi/l for combined radium-226 and radium-228 and 60 pCi/l for gross alpha.

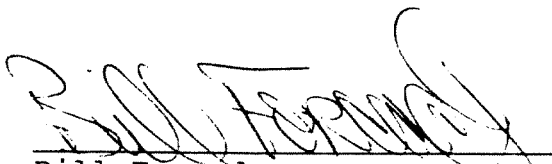
31. The Agency believes there is some potential ill health attributable to any exposure to ionizing radiation, including combined radium-226 and -228 and gross alpha activity.

(R85-14, Proposal for Amendments to Public Water Supply Regulations, June 12, 1985, paragraphs 30-31).

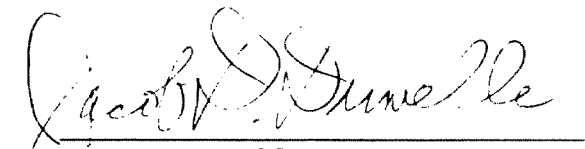
The same day that Dr. Toohey gave his testimony, August 2, 1985, the Journal of the American Medical Association, (Vol 254, No. 5, August 2, 1985 p. 621) contained an article, "Association of Leukemia with Radium Groundwater Contamination." Dr. Toohey's analysis did not include evaluation of the health effects of radium induced Leukemia.

Surely the state of knowledge on the effects of radium has advanced in the last five years. The National Research Council has produced Health Effects of Radon and Other Internally deposited Alpha-Emitters (BEIR IV, 1988) and Health Effects of Exposure to Low Levels of Ionizing Radiation (BEIR V, 1990). We believe this case is a proper place to evaluate those advances.

Batavia is asking the Board to evaluate old data, which may not have been intended to cover their situation, as justification for a variance. At 21.2 pCi/l, Batavia would be one of the highest levels of combined radium contamination which we can recall in our history of variance proceedings. We would have clearly required Batavia to justify the lack of adverse health risk from drinking water for a lifetime at its present radium levels in the Order issued today. Since that action was not taken, we choose to raise the issue in a Concurring Opinion.

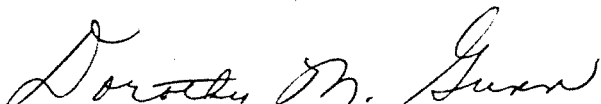


Bill Forcade
Board Member



J. D. Dumelle
Board Member

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Concurring Opinion was filed on the 9th day of March, 1990.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board