



VILLAGE OF CHANNAHON

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STATE OF ILLINOIS
Pollution Control Board

August 12, 2004

Ms. Dorothy M. Gunn, Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph Street Suite 11-500
Chicago, Illinois 60601

Re: Docket R04-21
Revisions to Radium Water Quality Standards: Proposed New 35 ILL.
Adm. Code 302.307 and Amendments to 35 ILL. Adm. Code 302.207 and
302.525

*R04-21
PC#5*

Dear Ms. Gunn:

The Village of Channahon would like to submit the following comments in support of the above proposed rulemaking, which would amend the water quality standard for radium from 1 picocurie per liter to 5 picocuries per liter and change its applicability to only public and food processing water supplies. The Village of Channahon owns and operates a public water supply system and a public wastewater treatment system. The source water for the public water supply is groundwater pumped from shallow and deep aquifers. The water pumped from the deep aquifer currently exceeds the maximum contaminant level (MCL) for combined radium 226 and radium 228. Channahon currently uses two methods to treat its potable water to comply with the MCL: blending with low radium content water and coprecipitation with hydrous manganese oxide (HMO) followed by filtration. Both of these methods were identified in the Village's Compliance Commitment Report submitted to the IEPA. The HMO plant is currently in use after receiving an operating permit from the IEPA.


While the Village does not have any data on the radium levels currently in its effluent from the wastewater treatment plant, it is generally believed radium entering the treatment plant is partially deposited in the sludge and partially released in the effluent. It is important to note that the amount of radium reaching the wastewater treatment plant after bringing the potable water supply into compliance with the radium MCL is expected to be the same as it was before

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treatment of the potable water for radium removal. The source water has not changed and therefore the radium levels should remain as before. The only difference from what occurred before treatment for radium is that the radium is removed before entering the distribution system and then recombined with domestic sewage in the wastewater stream. The blended water continues to contain radium below the MCL of 5 picocuries per liter, but quite possibly higher than the existing rule for discharge to surface waters of 1 picocurie per liter.

This revision is necessary to allow us, and other similarly affected water treatment facilities, to operate without violation. Also, it would allow potable water treatment methods for radium removal approved by the IEPA to exist without the unintended consequence of requiring the wastewater treatment facility to treat for radium in its effluent or not accept waste containing low levels of radium at all. Additionally, it is unclear if any danger exists from the discharge of radium to water other than public water supplies or food processing. According to information obtained from the Illinois Department of Public Health, radium is only a danger when ingested. Radiation received externally is insignificant since the skin blocks the alpha radiation. Again, the Village of Channahon supports the IEPA's proposal to revise the current radium water quality standards.

Sincerely,



Edward S. Dolezal, P.E.
Director of Public Works

cc: Joe Cook, Village President
Village Board of Trustees
David Johnson, Village Administrator