

## *Layne-Western*

*a division of Layne Christensen Company*

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August 15, 2005

Ms. Amy Antonioli  
Illinois Pollution Control Board  
100 W. Randolph, Suite 11-500  
Chicago, IL 60601

SUBJECT: Proposed Radium Standard for Wastewater Discharges- R04-021

Dear Ms. Antonioli,

With pending legislation for water utilities for radium compliance, it is not a good time to rush to change the standard for radium in wastewaters. The radium standard in drinking water took 20+ years of discussion before a safe level of combined radium 226 and radium 228 was determined. This has created an economic burden for utilities that will take a few years to recover from. Of course, they will have an improvement in the radium content of drinking water which should have long term benefits. This same approach should be used for determining discharge limits to our surface waters.

For surface water discharges, the actual levels that are currently being discharged are poorly documented. The effects of radium on aquatic life should be studied further to document any deleterious influences on aquatic life. Since this data does not exist, we feel that rushing to a new standard would be premature and provide a solution that is not fully backed by facts.

Some of the reasons that the standard should be investigated further before setting a new standard include:

1. Why would the level in surface waters be higher than what is regulated in drinking water?
2. No increases in discharges will result from setting the discharge limits higher.
3. There is little or no data on the effect of radium concentrations on aquatic life or other wildlife. The cost of a low standard should show some commensurate improvement in the environment.
4. There is little data on the actual levels of radium in water currently discharged from wastewater plants or on the dilution effect in surface waters.
5. It has taken many years to determine the new drinking water regulations and there is an economic hardship to meet the new drinking water regulation. Any change to wastewater limits should be staged for after the drinking water regulations go into effect and actual levels in wastewater are better documented. The dilution effect in surface waters should be taken into account as well.
6. Yes, a new standard needs to be developed because the 1 pCi/L radium 226 level cannot be met by dischargers and radium 226 and radium 228 need to be regulated together.



Thank you for the chance to comment on the water quality standard for radium.

Sincerely,

**LAYNE-WESTERN**

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Jim Groose

Water Treatment Specialist

