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# WQA PRESS RELEASE

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## **USEPA researchers report that scales and films in drinking water supply pipes can accumulate and leach high levels of contaminants**

**Lisle, Illinois—February 10, 2004** USEPA personnel reported disturbing drinking water distribution system revelations at the Inorganic Contaminants Workshop sponsored by the American Water Works Association on February 1-3, 2004.

Agency field engineers have been discovering that “regulated inorganic and radiological contaminants present in source water above detectable [analytical detection levels] but less than the safety standard, can accumulate in distribution systems to a significant number of times above their respective standard and that this is a largely unknown, unexplored, and universal phenomena.”

In other words, though the water leaving a municipal treatment plant complies with all USEPA criteria, events occurring in the water distribution system *after* water leaves the plant can lead to significant spikes in contaminant levels.

Case histories were reported in which scales and biofilm that sheared off or otherwise leached from pipe walls have caused drinking water levels exceeding tens and thousands of milligrams per liter for iron and copper and exceeding hundreds of micrograms per liter as well for arsenic, lead, zinc, and manganese—well above levels considered safe for consumption.

This same phenomenon occurs with radium and causes two distinct problems:

1. Radium in pipe deposits far exceeds the Safe Drinking Water Act MCL of 5 picoCuries per liter.
2. Radium decays to radioactive radon, which is released into the flowing water supply.

One USEPA researcher reported that scales in household plumbing could literally cause the home’s water pipe system to exceed the federal government’s toxicity characterization leaching procedure (TCLP) limits—making those deposits, by definition, a “hazardous waste”!

Another meeting report noted a related adverse reaction in household plumbing that is actually being *created* by the increasing use of chloramination for public water system disinfection. Chlorine typically dissipates from chloramines as water resides in home water pipes. This auto-decomposition creates ammonia, which can then change to nitrites. This “nitrification” lowers water pH in low alkalinity waters—which can lead to iron and copper corrosion in home plumbing.

WQA Technical Director Joseph F. Harrison, P.E., CWS-VI says, “Water Quality Association supports the need for further research into the public health significance of these discoveries. We also urge new research into all possible remedies, such as more effective central treatment and control schemes and the feasibility of using of point-of-use and point-of-entry (POU/POE) water treatment approaches *inside the home* to provide safeguard barriers for consumers’ public health protection.”

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The Water Quality Association is the not-for-profit international trade association representing the household, commercial/industrial, and small system water treatment industry.