



Natural Radionuclides in Public Drinking Water

- Public drinking water plants test for contaminants and filter them out, including radionuclides.
- EPA sets limits for radionuclides in public drinking water through the Safe Drinking Water Actⁱ. Local water suppliers must follow these limits.

About Natural Radionuclides in Public Drinking Water

Water treatment plants take precautions to protect drinking water before supplying it to the public. They regularly test the water and use filters or other methods to remove chemicals and natural radionuclides that can get into water from the soil.

Many of the contaminants found in public drinking water sources occur naturally. For example, the minerals radium and uranium are found in small amounts in almost all rocks, soil and water. Radonⁱⁱ, a radioactive gas, can be another natural contaminant in water. It comes from the breakdown of radium in soils, rocks and water. If it were not removed, radon in water could be released from into the air as you shower or use water for other household tasks like washing dishes or doing laundry.

However, a much more common source of radon in the home is in the air itself. Radon moves up from the ground into buildings through openings in floors or walls that are in contact with the ground. Radon can accumulate in buildings over time and may pose a health hazard. Any home or building may have high levels of radon, including new and old homes, well-sealed and drafty homes, and homes with or without basements.

Drinking water suppliers prevent water sources from becoming contaminated by:

- Identifying the path that water travels to reach the drinking water intake and determining areas where drinking water could become contaminated.
- Participating in voluntary programs that help keep contaminants out of drinking water. These programs could help educate the public or help businesses learn how to properly dispose of wastes that could contaminate water.
- Preparing for emergencies, such as a flood or spill that could threaten the drinking water supply.

Rules and Guidance

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

Under the Safe Drinking Water Act, EPA sets limits for radionuclides in public drinking water. Local water suppliers must follow these limits. They are also required to inform citizens about the level of radon and other radionuclides in their water. This is usually done through annual drinking water reports. EPA provides guidance to drinking water treatment plants and state regulatory agencies on meeting the limits.



THE STATES

Most states have set drinking water standards that meet the requirements set by EPA under the Safe Drinking Water Act. The states enforce those standards and set monitoring programs.

What you can do

Stay informed. Public water systems follow laws that protect the public from radiation in drinking water. Stay informed by reading your public water system's annual report card to see how well the water system in your area meets EPA's contaminant limits for drinking water.

Where to learn more

You can learn more about natural radionuclides in public drinking water by visiting the resources available on the following webpage: <http://www3.epa.gov/radtown/public-drinking-water.html#learn-more>.

ⁱ <http://water.epa.gov/lawsregs/rulesregs/sdwa/>

ⁱⁱ <http://www2.epa.gov/radiation/radionuclide-basics-radon>