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DRINKING WATER: EPA sends White House controversial radiation guidelines

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U.S. EPA sent the White House on Friday its final version of a contentious set of guidelines for radiation levels in drinking water systems in case of a nuclear emergency.

In the final days of the George W. Bush administration, EPA finalized standards to update the thresholds for radionuclides in drinking water that exceed levels set in the Safe Drinking Water Act.

But the agency's work wasn't ready to show up in the Federal Register until after President Obama took office, and the new administration quickly pulled it from publication.

Now critics of the revised protective action guide say it's a flashback to eight years ago. The same administration that blocked those proposed concentrations set new levels this summer that are higher than the previous administration.

"It's very troubling that they're trying to push this through in a hurry in the last weeks of the Obama administration," said Daniel Hirsch, director of the Program on Environmental and Nuclear Policy at the University of California, Santa Cruz.

The <u>draft</u> drinking water guide, which EPA released in June, would change the allowable concentrations of 110 radionuclides in drinking water following a nuclear disaster or release.

Of those 110 radionuclides, EPA gave thresholds for only three: cesium-137, strontium-90 and iodine-131, said the group **Public Employees for Environmental Responsibility**, which sued EPA for more documents related to its work on the guidelines (<u>*Greenwire*</u>, Oct. 24).

"For us, it's sort of like déjà vu all over again," Jeff Ruch, executive director of PEER, said in a recent interview.

EPA developed the nonbinding guidance to provide intermediate guidelines for water from the time of an accidental radiation release from a power plant or "dirty bomb" to when the situation is considered under control.

The disaster at Japan's Fukushima Daiichi plant in 2011 highlighted the importance of intermediate standards. Radioactive iodine was found in Tokyo's water system after the incident (<u>*Greenwire*</u>, March 25, 2011).

"This proposal intends to provide the necessary tools to inform the level at which local emergency responders should restrict consumption of drinking water contaminated during a radiological emergency," EPA wrote in its draft.

But this intermediate phase could extend to years, said Diane D'Arrigo, an advocate with the Nuclear Information and Resource Service and a critic of the proposed guide.

"They're giving the impression that it's immediate," she said. "It's not the immediate exposure for the immediate response."

'Allowing greater radioactivity'

The proposal says the general public can be exposed to 500 millirem in drinking water, while pregnant and nursing women and children 15 years and younger should be limited to 100 millirem.

For strontium-90, the proposed concentration for adults is 7,400 picocuries per liter, except for pregnant and nursing women, 925 times higher than the Safe Drinking Water Act's maximum contaminant level. The Bush-era recommendations set the level at 6,650 picocuries per liter.

For iodione-131, the limit under the current proposal would be 10,350 picocuries per liter. The Safe Drinking Water Act limit is 3 picocuries per liter. The 2008 number was 8,490 picocuries per liter.

The current draft sets cesium-137 levels at 16,570 picocuries per liter, higher that the statute's 200 picocuries per liter. The version from eight years ago set the limit at 13,600 picocuries per liter.

Millirem is defined as a unit of absorbed radiation dose. A curie and picocurie are units of radioactivity named after physicist Marie Curie.

EPA has said the guidance would not pre-empt the Safe Drinking Water Act. After a radiological accident, water system operators would have to comply with the law as soon as possible. The agency anticipates publishing the recommendation manual by the end of the year, said spokeswoman Enesta Jones.

EPA's final guidance arrived at the White House Office of Management and Budget for review one day after OMB finished scrutinizing a more wide-ranging manual on evacuation, sheltering, relocation, food safety, potassium iodide administration, cleanup and waste disposal following a crisis.

It's likely that the drinking water guide will become part of that broader manual, said Hirsch, and both would be finalized together.

A 2013 letter from the Nuclear Energy Institute said the broader guidelines were on the "conservative" end of comparable guidance from the International Commission on Radiological Protection and the International Atomic Energy Agency.

Ellen Anderson, director of radiation safety for NEI, said the guidance would apply to a number of hazards: nuclear power plants, but also weapons, transportation accidents and improvised nuclear devices.

Anderson added that the guidance would implement a two-tiered approach, setting different standards for pregnant or nursing mothers and other adults.

Instead of assessing the total amount of picocuries, EPA is assessing the absorbed dose in a range that is acceptable according to international organizations that oversee nuclear power, she added.

"Is it going to be higher than the normal range? Yeah, it is," she said. But by having an all-hazards approach, communities can make a more informed decision.

Revisions come as the nuclear industry struggles with updating older plants. At the 54year-old Indian Point nuclear plant in New York, for example, cesium-137, strontium-90 and tritium have leaked into the Hudson River, said the Council on Intelligent Energy and Conservation Policy and Promoting Health and Sustainable Energy in comments to EPA.

"It's a way to get at allowing greater radioactivity in the water," said D'Arrigo. "That's what's truly motivating this."

Anderson of NEI said the guidance has nothing to do with leakage from aging plants.

"They're not even related," she said.

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