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8171

**Comments of the Institute for Energy and Environmental Research on the proposed revision of the Fernald Record of Decision regarding the maximum allowable amount of uranium in water**

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In a Record of Decision (ROD) for its Fernald, Ohio site, and therefore in its agreement with the community, the Department of Energy (DOE) agreed to remediate the groundwater at Fernald to a standard of 20 micrograms per liter. DOE decisions on clean up are being taken on a site by site basis because the DOE derailed the process of setting national clean up standards after having agreed that it would work with the EPA to create such national standards and abide by them in its clean up operations. The DOE claimed that national standards were not needed because the remediation standards were best created on a site by site basis in a manner appropriate for each site.

Having spurned national standards in favor of a site by site approach, the DOE is now attempting to use an EPA national standard to relax local clean up standards. This is objectionable as to process, principle, and substance. The DOE opted for local, site by site standards and it should at least stick by the commitments that it has made. If the DOE chooses to use a safe drinking water national standard for uranium at Fernald, then it should, first of all, make an across the board and unequivocal commitment to all safe drinking water standards now and for the indefinite future for all clean up at all DOE sites. Until the DOE makes this commitment, its use of national standards to relax local commitments will lack integrity and smack of opportunism. If the DOE proposes to use the Environmental Protection Agency's (EPA) national safe drinking water standard for uranium for the Fernald site, the Institute for Energy and Environmental Research will regard this as a de facto official commitment to all aspects of the safe drinking water standard for all remediation across the nuclear weapons complex.

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At the time of the ROD, there was no national standard for uranium in national EPA safe drinking water regulations. But there were standards for other radionuclides. The DOE has not agreed to respect these safe drinking water standards as a matter of national practice. But the DOE is appealing to the Fernald community to relax the previously agreed limit for uranium because the new EPA limit is 30 micrograms per liter for uranium. This EPA standard is based on the toxicity of uranium as a heavy metal rather than its effect as a radionuclide. It represents a 50 percent relaxation of the previously agreed DOE limit of 20 micrograms per liter.

The EPA national standard and hence the proposed DOE relaxation implicitly ignores the radiation

8171

doses from the uranium. If we examine the various limits from a radioactivity point of view, we find that EPA uranium limit amounts to 20 picocuries per liter for natural uranium, and more in case the uranium is enriched. This is in excess of its standard for transuranic alpha-emitting radionuclides in the Safe Drinking Water rules, which is 15 picocuries per liter. The Fernald ROD limit of 20 micrograms per liter corresponds to about 13.4 picocuries per liter. The dose to the bone surface from drinking such water regularly would be about 35 millirem per year. This excludes the radiation dose from eating food grown using this water for irrigation. A fifty percent increase in this dose is completely unwarranted.

The people who live near the Fernald plant have been subjected to sufficient risk as a result of historical exposure to radiation. All future exposure to current and future generations in the area should be minimized as a matter of simple justice to the community. In proposing to relax previously agreed rules, the DOE is violating a trust and, in effect, thumbing its nose at the past and present sacrifices of the people of the region.

The EPA standard of 30 micrograms per liter is a maximum upper limit for water contamination and not some desirable level to be achieved. The DOE should still be bound by the ALARA rule that is the radiation protection rule that requires exposures to be kept "as low as reasonable achievable." Presumably, the DOE settled upon a limit of 20 micrograms per liter in its ROD because it was achievable and reasonable, and, in that sense, a local ALARA limit. A clean up maximum limit of 20 micrograms per liter of uranium would meet the EPA national standard. There is no logical reason to relax it except to save money.

If the DOE can argue for vast budgets for a program such as the National Ignition Facility (over \$15 billion for construction and operation over its lifetime), so nuclear weapons physicists can have interesting work to do in the post-Cold War era, then surely it can find the modest additional resources needed to fulfill the commitment on groundwater it has already made to the people living around its Fernald facility. To fail to do so would be to repeat the historical injustices of the Cold War, when the health of communities was put far below nuclear weapons production. Having said mea culpa many times over the last decade about its skewed Cold War priorities, and having promised that health will not fall into second place behind production and design and research, the DOE now seems set to renege on that promise. The proposed relaxation of the groundwater rule at Fernald is one more piece of evidence leading to such a conclusion. The DOE should scrap the proposal to relax the groundwater maximum contaminant limit for uranium to 30 micrograms per liter for Fernald and find the resources to meet its prior commitments to the community.

2