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OSU Nuclear Reactor LabNotes: Comments regarding Docket ID NRC-2011-0286Page 1 of 3*SUNDI Review Complete*
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U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Comments on Draft Regulatory Guide DG-4014, "Decommissioning Planning During Operations" (Docket ID NRC-2011-0286)

The Ohio State University Research Reactor (OSURR) wishes to submit comments regarding Draft Regulatory Guide DG-4014, ***Decommissioning Planning During Operations***, in this letter. The OSURR is a 500 kW research reactor located on the campus of the Ohio State University in Columbus, OH. Our mission is to provide opportunities for research, education, and service in the field of nuclear science. The OSURR is committed to safety and supports the NRC's effort to protect the public both from adverse health effects and the burden of providing financial support for decommissioning contaminated sites that have been abandoned. However, we believe that Draft Regulatory Guide DG-4014 will impose unnecessary requirements on the OSURR and similar licensees, which runs counter to Section 104 of the Atomic Energy Act of 1954 (AEA 1954), which states:

The Commission is directed to impose only such minimum amount of regulation of the licensee as the Commission finds will permit the Commission to fulfill its obligations under this Act to promote the common defense and security and to protect the health and safety of the public and will permit the conduct of widespread and diverse research and development.

In DG-4014, an approach has been taken of requiring new subsurface and groundwater sampling for all licensees (1) that are not uranium recovery facilities or NPPs (2) for whom decommissioning financial assurance is required (3) that have fluids processes. We are writing this letter to explain that subsurface and groundwater sampling would be an unnecessary requirement for the OSURR and similar licensees that can demonstrate that no source term exists to could cause "significant residual activity".

The water-filled pools in the OSU Nuclear Reactor Laboratory are the only fluid sources that could potentially result in subsurface residual activity. However, as part of its existing radiation protection program, the OSURR staff measures samples of water from the pools for activity, and these measurements always indicate activities ranging from none to very low levels of specific, expected isotopes. Because of the type and quantities of these isotopes, the OSURR could demonstrate through measurements and calculations that there is no scenario under which significant residual activity could possibly accumulate in the subsurface. The revised language in 10 CFR 20.1501(a) resulting from the Decommissioning Planning Rule states:



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Each licensee shall make or cause to be made, surveys of areas, including the subsurface, that—

- (1) May be necessary for the licensee to comply with the regulations in this part; and
- (2) Are reasonable under the circumstances to evaluate

This rule language makes clear that the subsurface and groundwater sampling should only be required for situations in which it is necessary and reasonable. For licensees that can demonstrate that there is no source term in the facility that could possibly result in significant residual activity in the subsurface, requiring subsurface and groundwater sampling would be neither necessary nor reasonable.

Rather than specifying that action is required for all licensees with fluid processes, the guidance in DG-4014 should specify that action will not be required for licensees that can demonstrate that their fluid processes cannot result in significant residual activity. Otherwise, licensees will be burdened with unnecessary requirements that they may not be able to afford, which runs counter to the language and spirit of AEA 1954.

In addition to what has been stated above, we also request that the guidance be made more clear for Class 104 licensees. The guidance refers to NPPs as 10 CFR 50 licensees, ignoring that research and test reactors are licensed under 10 CFR 50.21. Including in the guidance a clear path for Class 104 licensees would be very helpful.

We thank you for the opportunity to provide our feedback on the matter

Best regards,

Andrew Kauffman, Associate Director
The Ohio State University Nuclear Reactor Lab