Rateb M. (Boby) Abu-Eid, Sr. Advisor  
Division of Decommissioning, Uranium Recovery, and Waste Programs  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission

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Regulatory Framework

• In order to demonstrate compliance with the public dose limit of 100 mrem/yr in Title 10 of the Code of Federal Regulations (10 CFR) Part 20, “Standards for protection against radiation,” uranium recovery facility licensees must perform surveys of radioactivity in effluents to determine doses to members of the public.
Radon

- Radon-222 and its progeny are the most significant contributors to public dose at many uranium recovery facilities.
- The dose from radon progeny is much greater than the dose from the radon itself.
Interim Staff Guidance

NRC staff recognized that NRC guidance on radon and radon progeny surveys and determining public dose for uranium recovery facilities needed to be clarified.

Therefore, NRC staff prepared DUWP-ISG-01 on radon and radon progeny surveys and certain aspects of dose determinations for uranium recovery facilities to assist applicants, licensees, and NRC staff in evaluating compliance with the 10 CFR Part 20 public dose limit.
History of the Guidance

• The U.S. Nuclear Regulatory Commission staff published final Interim Staff Guidance for use in June 2019.
• NRC staff published an initial draft for public comment on November 21, 2011
• NRC staff considered the comments and prepared a revised draft which was published for public comment on March 27, 2014
• The NRC staff then considered the public comments on the revision in preparing the final report.
Contents of ISG

• The ISG includes discussion and guidance on the following topics:
  – Final 1991 Standards in 10 CFR 20
  – Compliance methods with 10 CFR 20.1301-1302
  – Survey methods for radon in air
  – Aspects of measurements of environmental radon in air
  – Simple dose calculation method
  – Radon progeny equilibrium factor
  – Other related aspects of demonstrating compliance
• DUWP-ISG-01 is available in NRC’s Agencywide Documents Access and Management System (ADAMS) at Accession No. ML15051A002.
• ADAMS is accessible from the NRC’s Web site at http://www.nrc.gov/reading-rm/adams.html.

Contact Information:

Rateb M. (Boby) Abu-Eid, Sr. Advisor
Division of Decommissioning, Uranium Recovery, and Waste Programs
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
301-415-5811
Boby.Abu-Eid@nrc.gov