

COMMENTS ON

NUCLEAR REGULATORY COMMISSION
FSME INTERIM STAFF GUIDANCE
FSME-ISG-01
EVALUATIONS OF URANIUM RECOVERY FACILITY
SURVEYS OF RADON AND RADON PROGENY IN AIR AND
DEMONSTRATIONS OF COMPLIANCE WITH 10 CFR 20.1301
Revised Draft Report for Comment

NRC PUBLIC WORKSHOP
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- **Thank You:** Thank you to NRC Staff for developing the Interim Staff Guidance (ISG) and providing responses to the comments on the 2011 draft ISG.
- **Agreement State Programs**
 - 10 C.F.R. §§ 20.1301 and 20.1302 applies to uranium recovery operations in both NRC and NRC Agreement States that regulate 11e.(2) byproduct material.
 - It is likely that Agreement States will rely on the NRC ISG to determine licensee compliance with 10 C.F.R. §§ 20.1301 and 20.1302.
 - The ISG will be beneficial to citizens in states with either NRC or Agreement State regulated uranium recovery operations.

- Agreement State Programs (continued)
 - It is likely that Agreement State citizens will rely on the NRC ISG to assess agency determinations regarding licensee compliance with Sections 20.1301 and 20.1302.
 - NRC Agreement State program reviews have not adequately evaluated Agreement State determinations regarding uranium mill compliance with Sections 20.1301 and 20.1302.
 - The NRC must consider Agreement State use of the ISG in Agreement State uranium recover licensing decisions and not exclude something because it might only apply to a uranium recovery operation in an Agreement State.

- **Definition of “Radon”**

- The EPA asked that the use of the term “radon” also include radon-220 (thoron), a decay product of thorium-232.
- EPA stated that, although radon-220 has a short half-life of about 55 seconds, if present in air continuously from an unlimited source, it has the potential to enter the lung and add to the lung dose.
- The EPA cited 40 C.F.R. § 192.41. EPA § 192.41 and NRC § 20.1301 are standards that apply to uranium recovery operations under both NRC and Agreement State regulatory programs.

- Definition of “Radon” (continued)
 - NRC Staff licensed the receipt, storage, processing, and disposal of high-thorium content waste in tailings cells at the White Mesa Mill in Utah.
 - NRC has opened the gate for the disposal of waste containing thorium-232 and progeny at uranium mills.
 - Though Utah is now an Agreement State for 11e.(2) byproduct material, it will likely use of the ISG to determine compliance with Section 20.1301.
 - It is highly likely that neither the NRC, nor Utah, ever considered the storage, processing, and disposal of thorium-232 waste at the White Mesa Mill when evaluating licensee compliance with Section 20.1301.

- Definition of “Radon” (continued)
 - The MILDOS-AREA computer code used to determine Section 20.1301 compliance via calculation does not consider radon-220 emissions.
 - The measurement of radon emissions from uranium tailings impoundments—used to demonstrate compliance with 40 C.F.R. Part 61 Subpart W—could also be used for demonstrating compliance with Section 20.1301. However, the Subpart W radon-measurement methodology does not capture radon-220 emissions.
 - The NRC must include radon-220 in its definition of “radon.” If not, radon-220 emissions might not be included in dose assessments at uranium mills regulated under the Atomic Energy Act and subject to NRC and EPA standards.

- **Documentation**

- Documentation of licensee compliance should be submitted to the agency and made publicly available, so the public would be able to evaluate compliance determinations. Documentation would include the data and information that was used by the licensee to demonstrate compliance through the methods described in Section 20.1302. For example, the data and assumptions entered into the MILDOS-AREA computer code used to determine compliance via calculation.