IDAPA 58.01.10

Rules Regulating the Disposal of Radioactive Materials Not Regulated Under the Atomic Energy Act of 1954, As Amended

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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Scoping Meeting
January 18, 2023

Agenda

- Zero-Based Regulation
- Idaho Statue 39-107D
- Technologically Enhanced Naturally Occurring Radioactive Material (TENORM)
- Disposal restriction under current rule
- Waste sampling project
- Potential changes Suggestions & Recommendations
- Rulemaking timeline

Executive Order No. 2020-01

Zero-Based Regulation (ZBR)

- Purpose
  - Critical and comprehensive review of all rule chapters
  - Reduce regulatory burden
  - Increase clarity and ease of use
- Goals
  - Remove obsolete, outdated, unnecessary regulations
  - Simplify rules
  - Review each ruleset every 5 years

Idaho Statue 39-107D Requirements

- 39-107D(2)
  - Action based on science and studies
- 39-107D(3)
  - Identification of risk
  - Identification of studies

TENORM

Any naturally occurring radioactive materials not subject to regulation under the Atomic Energy Act whose radionuclide concentrations or potential for human exposure have been increased above levels encountered in the natural state by human activities. TENORM does not include source, byproduct or special nuclear material licensed by the U.S. Nuclear Regulatory Commission under the Atomic Energy Act of 1954. (IDAPA 58.01.10.010.14)

IDAPA 58.01.10.020.04 prohibits disposal at municipal solid waste landfills

TENORM Sampling Project

- DEQ is completing a voluntary evaluation of TENORM wastes generated by a number of drinking water and wastewater treatment facilities in Idaho.
- DEQ does not know if wastes generated at these facilities contain radionuclides that would warrant special disposal at landfills permitted or authorized to manage radioactive waste, or if they can safely be managed by other less burdensome means.
- A change to the rule would implement a threshold value under which wastes with natural radioactive concentrations could be disposed of at an authorized municipal solid waste landfill.

Sample project scope of work

The Scope of Work for this project includes the following elements:

- Evaluate and communicate advantages and disadvantages of utilizing prescribed TENORM value thresholds and how they are protective of human health and the environment.
- Evaluate and communicate advantages and disadvantages of utilizing site specific (risk-based) TENORM thresholds and how they are protective of human health and the environment.
- Evaluate and report whether 270 picocuries (the NRC threshold for transport, labeling, placarding, and spills) or another threshold is reasonable and environmentally protective for landfilling TENORM in Idaho.

Threshold values on human health and environmental considerations

The estimated dose to a landfill worker used by other states establish concentration limits would be no greater than 100 mrem/y. The doses to members of the public residing near the landfill and under future land use would be lower than the dose to the landfill worker under the proposed scenarios, as determined by the risk assessments.

Potential changes Suggestions & Recommendations

Develop rationale and specific provisions for update to state regulation. Establish a threshold solid waste facilities can update waste acceptance criteria, allowing receipt of natural radioactive concentrations “without consideration of the radioactive constituents”.

Rulemaking

Final rule	Mar – May 2025
Legislative review	Jan – Mar 2025
DEQ Board review	Nov 2024
Proposed rule	Aug 2024
Negotiations	Sep 2023 – Apr 2024
Sampling project and evaluation	January 2023 – Fall 2023

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Questions