



Department of Energy
Washington, DC 20585

April 16, 2018

Ms. Carol Gallagher
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTN: Rulemakings and Adjudications Staff

Dear Ms. Gallagher,

This letter responds to the Nuclear Regulatory Commission's (NRC's) request published in the *Federal Register* on February 14, 2018, for comment on *Greater-Than-Class C and Transuranic Waste* (NRC-2017-0081/RIN 3150-AKOO). NRC's February request seeks stakeholder participation and involvement in identifying the various technical issues that should be considered in the development of a regulatory basis for the disposal of greater-than-Class C (GTCC) low-level radioactive waste and transuranic waste through means other than a deep geologic disposal, including near surface disposal.

If you have any questions on these comments, please contact me at (202) 586-0785 or Douglas Tonkay, Director, Office of Waste Disposal, at (301) 903-7212.

Sincerely,

A handwritten signature in black ink, appearing to read "MSenderling", written over a horizontal line.

Mark Senderling
Deputy Assistant Secretary for
Waste and Materials Management

Attachment



EM Response to NRC's Request for Comment on Greater-Than-Class C Low-Level Radioactive Waste and Transuranic Waste

1. What are the important radionuclides that need to be considered for the disposal of the GTCC and transuranic wastes?

EM Response: The U.S. Department of Energy (DOE) collected information on the radionuclide inventories for greater-than-Class C (GTCC) low-level radioactive waste (LLW) and GTCC-like wastes in *The Final Environmental Impact Statement for the Disposal of Greater-Than-Class C (GTCC) Low-Level Radioactive Waste and GTCC-Like Waste* (DOE/EIS-0375) published in February 2016. This Environmental Impact Statement contains information on isotopes to be disposed and their estimated volumes. Additionally, international data/sources, e.g., Environmental Disposal of Radioactive Material (EDRAM), may also be helpful to ensure completeness of the specific radionuclide inventories that will need to be disposed of as GTCC LLW and transuranic (TRU) waste.

2. How might GTCC and transuranic wastes affect the safety and security of a disposal facility during operations (i.e. pre-closure period)?

EM Response: Current regulatory framework supports disposal of Class A, B, and C LLW. Based on operation of DOE treatment, storage, and disposal facilities, lessons learned can be readily utilized for GTCC LLW and GTCC-like disposal facilities. Existing safety and security standards are adequate for pre-closure operations. Specific design and operational specifications and constraints will be defined in accordance with the appropriate regulations and polices once a disposal facility site is selected.

3. How might GTCC and transuranic wastes affect disposal facility design for post-closure safety including protection of an inadvertent intruder?

EM Response: It is EM's position that regulations and guidance should be risk-informed. Site-specific performance assessments must be the standard for post-closure safety requirements including reasonable protection from an inadvertent intruder. Safety is paramount; however, care should be taken to understand the cost implications and relative benefits of new requirements for disposal of GTCC LLW, including implementation. Cost and worker dose impacts need to be considered. Inadvertent intruder scenarios must be realistic and reasonable, considering safety and cost considerations. Requirements and guidance must not be extreme, e.g., they must not project what the activities and lifestyles of future generations might be. Requirements should assume that customs and practices of today continue into the future. This provides a common basis for conducting analyses and avoids speculation about the rate and nature of technological development.

From: Kliczewski, Theresa
To: [RulemakingComments Resource](#)
Subject: [External_Sender] DOE EM comments on GTCC & TRU FRN (NRC-2017-0081)
Date: Monday, April 16, 2018 6:01:29 PM
Attachments: [4-16-18 DOE EM comments on NRC FRN GTCC.pdf](#)

NRC,

Attached are the DOE Office of Environmental Management's comments on NRC's FRN regarding GTCC LLW & Transuranic Waste.

Thanks.

Theresa

Theresa J. Kliczewski
Office of Waste Disposal
Environmental Management
U.S. Department of Energy
Telephone: (202)586-3301