

ESTOutreachCEm Resource

From: Marthea Rountree [Rountree.Marthea@epamail.epa.gov]
Sent: Wednesday, June 27, 2012 10:41 AM
To: ESTOutreach Resource
Cc: Jacobs, Christian
Subject: NRC Draft Report on Extended Storage and Transportation (EST) Technical Information Needs - EPA Comments
Attachments: ID & Prioritization of Info Needs - Extended Storage SNF - EPA Comment Ltr.pdf

Extended Storage and Transportation Program Staff,

Attached are EPA's comments on NRC's draft Report on Extended Storage and Transportation (EST) Technical Information Needs. Please do not hesitate to contact me you have any questions.

(See attached file: ID & Prioritization of Info Needs - Extended Storage SNF - EPA Comment Ltr.pdf)
Regards,

Marthea Rountree
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From: Marthea Rountree

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WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

JUN 21 2012

Christian Jacobs, Project Manager
Mailstop EBB-2B2
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Ms. Jacobs:

In accordance with our responsibilities under Section 309 of the Clean Air Act, the National Environmental Policy Act (NEPA), and the Council on Environmental Quality's (CEQ) NEPA regulations, the Environmental Protection Agency (EPA) has reviewed the Nuclear Regulatory Commission's (NRC) Draft Report for Comment, "Identification and Prioritization of the Technical Information Needs Affecting Potential Regulation of Extended Storage and Transportation of Spent Nuclear Fuel," May 2012. This report is being conducted in parallel with the possible update of NRC's Waste Confidence decision and the preparation of an environmental impact statement (EIS) for spent nuclear fuel (SNF) storage beyond the period given in the 2010 Waste Confidence decision.

The evaluation in this report focuses on the degradation phenomena that may affect dry storage systems, and how these phenomena may affect the ability of the systems to fulfill their regulatory functions. For this evaluation, NRC staff considered performance of the systems over an initial 300 year period following discharge of the SNF from the reactor. Its purpose is to identify, evaluate, and prioritize the need for additional technical data on the behavior and aging of the systems, structures, and components used for dry storage so that NRC can effectively license and regulate spent fuel management for extended periods through multiple dry cask license renewals. For the final assessment, NRC prioritized the areas for further technical investigation, using the following criteria: 1) regulatory significance for safety performance; and 2) the level of knowledge about the process or issue. In general, those areas with high safety significance and low level of knowledge ranked highest for further investigation. A low priority ranking indicates that enough information is available for regulatory considerations. NRC will use these data to understand 1) systems that must be monitored and inspected, 2) frequency of the monitoring and inspecting, and 3) the timeframes in which replacement or repair of systems might be expected.

Based on the information provided in the report we offer the following comments and request for clarifications for your consideration.

1. Page 1-2 states that under current regulations, damaged or degraded SNF can be safely and securely transported with appropriate repackaging. There is little to no additional discussion on this subject. Given the 300 year evaluation period, re-packaging may have an affect on worker health and safety and could have impacts on the public and environment. Therefore consideration should be given to including this in the evaluation.
2. The document includes the assumption that "license fuel burnup limit in-reactor will not be increased beyond the current limit of 62.5 gigawatt-days per metric ton of uranium (62.5 GWd/MTU)." EPA requests that NRC provide a more detailed rationale and basis for this assumption.
3. Because the report is very technical, particularly in the areas of nuclear engineering and metallurgy, EPA recommends a glossary of terms and separate list of abbreviations. Several terms and abbreviations were defined later in the text (i.e., Spallation, the solvus hysteresis, hydrate phase transition). Including a separate list of terms and abbreviations would make the document more readable.

We appreciate the opportunity to review and comment on this document. We look forward to continued collaborations on your efforts regarding extended storage of spent nuclear fuel and the development of the EIS. If you have any questions, you may contact me at (202) 564-5400. You may also call my staff point of contact, Marthea Rountree at (202) 564-7141.

Sincerely,

A handwritten signature in black ink that reads "Susan E. Bromm". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

Susan E. Bromm
Director
Office of Federal Activities