[7590-01]

NUCLEAR REGULATORY COMMISSION

Availability of Draft Branch Technical Position
on a Performance Assessment Methodology
for Low-Level Radioactive Waste Disposal Facilities

SUMMARY: The U.S. Nuclear Regulatory Commission is announcing the availability of the "Draft Branch Technical Position on a Performance Assessment Methodology for Low-Level Radioactive Waste Disposal Facilities."

DATE: The comment period expires [insert date 90 days from publication date].

ADDRESSES: Send comments to Chief, Rules Review and Directives Branch, Division of Freedom of Information and Publications Services, U.S. Nuclear Regulatory Commission, 11545 Rockville Pike, Mail Stop T-6-D59, Rockville, Maryland 20852-2738. Comments may be delivered to the same address between 7:45 a.m. and 4:15 p.m., on Federal workdays.

A copy of the draft Branch Technical Position (BTP) is available for public inspection and/or copying at the NRC Public Document Room, 2120 L Street (Lower Level), NW, Washington, DC 20555-0001. Copies of the draft BTP may also be obtained by contacting Karen S. Vandervort, Division of Waste Management, Office of Nuclear Material Safety and Safeguards. Telephone: (301) 415-7252.

FOR FURTHER INFORMATION CONTACT: Anne E. Garcia, Division of Waste Management, Office of Nuclear Material Safety and Safeguards. Telephone:

Attachment

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(301) 415-6631.

SUPPLEMENTARY INFORMATION: The U.S. Nuclear Regulatory Commission's (NRC's) regulation regarding the licensing requirements for the land disposal of low-level radioactive waste (LLW) can be found at 10 CFR Part 61. Part 61 requires that technical analyses be performed to demonstrate protection of the general population from releases of radioactivity to the general environment in certain environmental pathways such as ground water, surface water, air, soil, and biota (plants). A LLW performance assessment is a technical analysis that can be used to demonstrate compliance with NRC's performance objective for radiological protection of the general public — 10 CFR 61.41. NRC's Performance Assessment Working Group has prepared a draft BTP, designated NUREG-1573, as a step toward providing detailed LLW performance assessment guidance to potential applicants for a NRC license. When finalized, the BTP may contain information that may be useful to Agreement States and disposal site developers on LLW performance assessment. In this regard, the draft BTP includes the staff's technical positions on: (a) an acceptable approach for systematically integrating site characterization, facility design, and performance modeling into a single performance assessment process; (b) five principal regulatory issues regarding interpreting and implementing Part 61 performance objectives and technical requirements governing LLW site post-closure performance; and (c) implementation of NRC's LLW performance assessment methodology. In arriving at the proposed positions taken on these issues in the draft BTP, the staff has considered a number of alternatives. Nevertheless, the staff is interested in the public's views on both the suitability of approaches presented in the draft BTP for measuring

the performance of LLW disposal facilities, as well as the staff's proposed positions on certain LLW regulatory issues: (a) consideration of future site conditions, processes, and events; (b) performance of engineered barriers; (c) timeframe for an LLW performance assessment; (d) treatment of sensitivity and uncertainty; and (e) the role of performance assessment during the operational and closure periods.

To obtain early feedback on the guidance for LLW performance assessment under development by the staff, a preliminary draft of the BTP was distributed for comment to LLW-sited and host Agreement State regulatory entities; the Advisory Committee on Nuclear Waste (ACNW); the U.S. Department of Energy (DOE); the U.S. Environmental Protection Agency; and the U.S. Geological Survey in January 1994. The staff briefed the ACNW and the Commission on the scope and content of the BTP in March and April 1994, respectively. The staff subsequently held two workshops on the BTP and LLW performance assessment. The first was a 2-day workshop held at NRC Headquarters on November 16-17, 1994. The second was a half-day workshop, limited to certain technical issues in LLW performance assessment, held at the 16th Annual DOE/LLW Management Conference on December 13-15, 1994. Finally, the staff briefed the ACNW on key regulatory issues and its evaluation of the workshop comments on March 16, 1995. This draft BTP reflects the staff's consideration of feedback received during those interactions. However, the staff did not formally respond to these comments in preparing this version.

In a related matter, the staff would be interested in the views of the public concerning whether it would be appropriate to discount potential doses, from a

hypothetical LLW disposal site, to future generations. In the context of LLW disposal, it does not appear that the use of the "time-value of money" approach to discounting is implementable considering the long time frames of performance considered. In the context of LLW disposal, application of discounting, either qualitative or quantitative, might more appropriately weigh present-day economic cost of design and performance features associated with LLW disposal against expectations about future health risks. This approach would not allow the standard to be exceeded, but would address the level of assurance necessary to demonstrate that the LLW performance objectives will be met. Although the draft BTP does not address this issue, the staff has been asked by the Commission to request comment on this concept as part of the public comment process.

Finally, the staff is aware that several entities have commented on aspects of the BTP, as presented in the January 1994, preliminary draft, through the Commission's November 1995 Strategic Assessment and Rebaselining Initiative. The staff was directed by the Commission to inform it on how it plans to resolve those comments prior to a decision to finalize the BTP. As part of the public comment process, the staff will provide the Commission with a summary of all public comments, including those made during the Strategic Assessment and Rebaselining Initiative, and proposed resolutions to those comments prior to finalizing the BTP.

Dated at Rockville, Maryland, this 20th day of May 1997.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION.

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