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(55FR28771)

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Department of Energy
Washington, DC 20585

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OFFICE OF THE SECRETARY
DOCKETING & SERVICE
BRANCH

Secretary
U.S. Nuclear Regulatory Commission
Attention: Chief, Docketing and
Service Branch
Washington D.C. 20555

Dear Sir:

This letter and its enclosure constitute the Department of Energy's (DOE) comments on the Federal Register Notice published on July 13, 1990. The notice (55 FR 28771-28773) publishes for public comment receipt of a petition for rulemaking filed by DOE requesting that the U.S. Nuclear Regulatory Commission (NRC) amend its regulations pertaining to the disposal of high-level radioactive wastes in geologic repositories to include a specific dose criterion for design basis accidents.

DOE has reviewed NRC's related regulatory initiative. We urge you to proceed with the DOE's petition for rulemaking now and have specific comments in response to your notice of receipt of petition for rulemaking, as provided in the enclosure.

We appreciate the opportunity to comment on your Federal Register Notice. We were granted an extension by Michael T. Lesar, Chief, Rules Review Section, Regulatory Publications Branch, Division of Freedom Information and Publications Services, Office of Administration, NRC, until December 1, 1990. If you have any questions, please contact Dwight Shelor of my staff at (202) 586-6046.

Sincerely,

John W. Bartlett, Director
Office of Civilian Radioactive
Waste Management

Enclosure:

Department of Energy Comments on Notice of Receipt of Petition
for Rulemaking (55 FR 28771-28773)

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cc w/enclosure:

R. Bernero, NRC

R. Browning, NRC

J. Youngblood, NRC

D. Moeller, ACNW

R. Loux, State of Nevada

M. Baughman, Lincoln County, NV

D. Bechtel, Clark County, NV

S. Bradhurst, Nye County, NV

Department of Energy Comments on Notice of
Receipt of Petition for Rulemaking (55 FR 28771-28773)
Docket No. PRM-60-3

General Comment

The NRC acknowledges that the petition addresses areas of concern similar to those that would be addressed in an NRC contemplated rulemaking action to establish additional preclosure regulatory requirements for HLW geologic repositories. The NRC's approach involves performing a functional analysis, followed by development of operational criteria and comparison studies, and using the results of that effort as a basis for consideration of any potential rulemaking. The NRC estimates that the reports of the above effort would be available after November 1991. Accordingly, any potential rulemaking action would not be initiated until after November 1991 and issuance of any final rule could well be 2 or 3 years away from that date. The absence of quantitative accident dose criteria in 10 CFR Part 60 creates programmatic uncertainties associated with the design of the geologic repository operations area and the procurement of long lead-time items based on that design. This concern prompted DOE to take the initiative to submit the subject petition for rulemaking to establish accident dose criteria. DOE strongly urges NRC to undertake an accelerated schedule with regard to resolution of this issue.

Specific Comments

NRC states that "In applying the approach of the petitioner, it would be possible to have no structures, systems, and components important to safety if the nearest boundary of the preclosure control area were sufficiently distant. This could encourage extending the boundary of the preclosure control area in order to justify less effective safety design and quality assurance measures and result in inferior structures, systems, and components in the geologic repository operations area. While {DOE's} approach might be adequate for protection of the general public, it would ignore the safety of the workers."

We disagree with NRC's interpretation of DOE's approach in its petition. DOE is aware of its responsibility of ensuring public and worker safety. The guidance provided in section 4.1(b) of NUREG-1318, "Criteria for Non-Q-list Items" states that DOE should implement a program addressing "items and activities, such as those associated with meeting the design criteria contained in 10 CFR 60.131(a) for protection of worker health and safety". DOE intends to meet the guidance provided in NUREG-1318 in its quality assurance program, which is subject to review by NRC. In addition, protection of worker safety and health would also be assured by the Department's compliance with 10 CFR Part 20.

G-1318, Technical Position on Items and Activities in High-Level Waste Geologic Repository Program Subject to Quality Assurance Requirements, U.S. Nuclear Regulatory Commission, April 1988

DOE notes that the provisions currently contained in 10 CFR Part 60 could lead to the type of scenario that is depicted in the above NRC comment. For example, nothing in the current definition of "important to safety" contained in 10 CFR Part 60, precludes one from choosing a sufficiently distant boundary for the "restricted area" so as to result in the same scenario postulated in the NRC comment.

DOE's purpose for proposing a preclosure control area boundary, at which accident dose criteria would be applied, is to rectify an inconsistency that exists in 10 CFR Part 60 compared to other NRC regulations governing nuclear facilities (e.g., 10 CFR Part 72). Other nuclear facilities, such as reactors and independent spent fuel storage installations, typically use two separate area boundaries: 1) an area over which control can be exercised in case of an accident, and 2) a different but much smaller area for access control and routine radiation monitoring for normal operations. Examples are: "Controlled Area", defined in 10 CFR Part 72 for application of accident dose criteria; and "Restricted Area", defined in 10 CFR Part 20 for application of dose criteria during normal operations. 10 CFR Part 60 is inconsistent with such long established practice by requiring that both the accident dose criteria and the routine access controls be applied at the "restricted area" boundary. At the same time, the definition of "restricted area" in 10 CFR Part 60 remains identical to that of 10 CFR Part 20. As illustrated in the diagram accompanying its petition, DOE seeks to rectify such inconsistency by proposing an area boundary called "preclosure control area" where accident dose criterion will be applied. The term "preclosure control area" (which could be larger than the restricted area, but smaller than the controlled area) would be similar to the term "controlled area" as defined in 10 CFR Part 72. The definition of the term "restricted area" remains unchanged and will be used for normal operations considerations, as intended in 10 CFR Part 20.

The approach suggested by NRC, in its July 13, 1990 Federal Register Notice, to determine structures, systems and components important to safety, departs from the objective dose based criterion that NRC adopted, in response to public comments, when 10 CFR Part 60 was promulgated. In addition, a similar dose based criterion approach is used for safety related electrical equipment in 10 CFR Part 50.49. Instead, the suggested approach appears to use as a basis, some arbitrary, highly subjective functional criteria that are yet to be developed. DOE is concerned that NRC intends to abandon the approach to safety classification that it adopted in 10 CFR Part 60 and NUREG-1318, and is not aware of any developments that would justify such action since Part 60 was promulgated. If the NRC intends to pursue a functional analysis approach, it raises a question concerning the status of guidance provided in NUREG-1318, which defines items important to safety on a dose based criterion.

