RELEASED TO THE PDR
1/13/99 DKW
date initials

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001
January 12, 1999

SECRETARY

MEMORANDUM TO: William D. Travers
Executive Director for Operations

FROM: Annette Vietti-Cook, Secretary

SUBJECT: STAFF REQUIREMENTS - SECY-98-225 - PROPOSED RULE: 10 CFR PART 63 -- "DISPOSAL OF HIGH-LEVEL WASTES IN A PROPOSED GEOLOGIC REPOSITORY AT YUCCA MOUNTAIN, NEVADA"

The Commission has approved publication of the proposed rulemaking for 10 CFR Part 63, including risk-informed, performance-based criteria for both pre-closure operations and post-closure performance of the proposed geologic repository for high-level waste at Yucca Mountain, Nevada. The specific corrections identified in the attachment should be incorporated in the rulemaking package.
(EDO) (SECY Suspense: 2/5/99)

While the FRN recognizes NRC's statutory mandate to use EPA standards when they are issued, the FRN should make clear the Commission's position that the proposed radiation dose standards (1) are protective of the public health and safety and environment and (2) are consistent with national and international recommendations for radiation protection standards. The FRN should be revised accordingly.

It appears that proposed section 63.44 applies a 10 CFR 50.59-like change process to the entire contents of the license application rather than only the Safety Analysis Report (SAR). As a result, implementation of the proposed requirements for Commission approval, reporting and recordkeeping of certain program changes has the potential to be quite burdensome for both the applicant and regulator. Proposed language for Parts 50, 52, and 72 would all suggest that the 50.59-like change process be applied only to the SAR. The staff should modify the FRN to solicit comments on whether the change process should apply only to the SAR.

Currently, a proposed rule containing draft language for sections 50.59 and 72.48 (applicable to the storage of spent nuclear fuel), among others, is out for public comment. To be consistent with earlier Commission direction on that proposed rule, the staff should include two rule language options for proposed section 63.44. Specifically, the current proposed language for section 63.44 should be retained and a second option–language identical or equivalent to that currently proposed for 72.48-should be added to encourage public comment on this issue. The staff has the flexibility to alter the proposed 72.48 language as time allows prior to issuance of the proposed rule, and subsequently, as needed. To explain the two language option approach, the FRN should be modified to clearly indicate that the 72.48-equivalent language option is a

9901210095 990112
PDR 10CFR
PT9.7 PDR

O &M-6 SRM

template for discussion and that these issues are undergoing staff and Commission review and could undergo modification based on that review or public comments received on either rulemaking. Also, the FRN should recognize that it may be necessary to modify proposed sections 63.44 and 63.46 to eliminate the concept of an "unreviewed safety question" as is being done in the parallel 50.59, 72.48 rulemaking.

With regard to human intrusion, the Statements of Consideration indicate that DOE is to assume that the borehole is not adequately sealed. However, section 63.113 is silent on this issue. These sections need to be made consistent for clarity.

The staff should consider consolidating all the questions soliciting public comment located throughout the FRN into one section for ease of the reader. The questions should not necessarily be removed from their respective subject areas so as to keep them in context.

Attachment:
As stated

cc: Chairman Jackson
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield
OGC
CIO
CFO
OCA
OIG
OPA
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)
PDR
DCS

Specific Corrections to be Included in the Rulemaking Package

Changes to the FRN

1. On page 7, paragraph 1, line 8, replace 'pending' with 'new,' and lines 8 and 9, replace 'passed and signed by the President' with 'enacted into law'.

2. On page 7, last line, replace 'believes' with 'concludes'.

3. On page 8, line 1, delete 'However' and start the sentence with 'In'. At the end of line 2, add:

   > However, in the interest of openness, the Commission wishes to say that, at present, the Commission is inclined to provide for informal hearings for both construction authorization and licensing to receive and possess waste. No statute requires formal hearings in either case; EPA conducted none in certifying the Waste Isolation Pilot Project; and informal hearings allow for both greater efficiency and greater openness.

4. On page 13, paragraph 2, line 5, correct the spelling of 'judgment' and insert 'e.g., defense-in-depth,' after 'judgment'.

5. On page 13, paragraph 2, line 6, delete 'based upon risk insights'.

6. On page 13, paragraph 2, line 8, insert '(4) provide flexibility to determine how to meet the established performance criteria in a way that will encourage and reward improved outcomes; and change '(4)' to '(5)'.

7. On page 16, 4th line from the bottom, insert after 'Mountain,' the phrase 'or if new HLW legislation is enacted into law,'.

8. On page 17, line 1, insert the following after 'year':

   > exclusive of the dose contribution from background radiation, medical procedures, and sanitary sewerage disposals.

9. On page 17, line 8, insert the following footnote after 'Part 72':

   > As a matter of policy, NRC considers 25 mrem TEDE as the appropriate dose limit within the range of potential doses represented by the current 10 CFR 72.104 limit of 25 mrem (whole body), 75 mrem (thyroid dose) and 25 mrem (to any other organ). It is also important to note that the average individual exposure in the U.S. from natural background radiation is approximately 300 millirem per year or 3 times the Part 20 public dose limit and 12 times the standard proposed for Yucca Mountain.

10. On page 17, line 17, insert 'comparable to' after 'area be'.

11. On page 17, at the end of the last line, add:

    > and for license termination (10 CFR 20.1402). The protection standard is consistent with the national and international recommendations for radiation protection (National Council on Radiation Protection and Measurements and

International Commission on Radiological Protection). The final dose limit used in this regulation and the requirement in 10 CFR 20.1101(b) to maintain doses to members of the public that are as low as is reasonably achievable (ALARA) will fully protect the public and the environment.

12. On page 18, paragraph 1, lines 5 and 11, insert ', excluding background radiation,' after 'sources'.

13. On page 19, paragraph 1, line 6, insert ', excluding background radiation,' after 'sources'.

14. On pages 25, 34, and 45, delete the extra blank line in the text.

15. On page 27, paragraph 1, line 10, insert 'or Congress enact new high-level waste legislation into law' after 'Mountain'.

16. On page 36, paragraph 2, line 3, delete the comma after 'believes'.

17. On page 39, paragraph 2, line 5, insert 'expected' before 'annual'.

18. On page 44, paragraph 2, line 8, insert 'expected annual' before 'dose'.

19. On page 46, in section XII, lines 13 and 16, delete the comma after 'events'.

20. On page 48, last paragraph, line 5, replace 'based' with 'informed'.

21. On page 49, last paragraph, line 7, delete the 's' in 'conducts'.

22. On page 97, paragraph 1, line 2, insert 'only' after 'group'.

23. On page 148, section 63.113, paragraphs (c) and (d), line 2, place parentheses around the 'b' after 'paragraph'.

Changes to the Press Release

24. On page 1, paragraph 4, line 1, insert 'of 1992' after 'Act'.

25. On page 1, paragraph 5, line 2, insert '(NAS) and were to be issued not later than one year after the NAS findings were available to EPA' after 'Sciences'.

26. On page 1, paragraph 5, line 3, insert a new sentence after 'standards' as follows:
    EPA has yet to carry out this direction.

27. On page 1, paragraph 6, line 3, insert 'or if Congress enacts new high level waste legislation into law' after 'standards'.

28. On page 2, paragraph (1), line 2, insert 'expected' before 'annual'.

29. On page 2, paragraph (1), line 5, insert 'all-pathways' after 'millirem'.

30. On page 2, paragraph (1), line 6, add the following at the end:

> The all-pathways limit will consider the dose contribution from the groundwater pathway. It is also important to note that the average individual exposure from natural background radiation in the U.S. is approximately 300 millirem per year.

31. On page 2, paragraph (2), line 2, insert 'expected' before 'annual'.

32. On page 2, paragraph (3), line 3, insert 'all the way to the saturated zone' after 'package'.

33. On page 2, paragraph (3), line 4, insert 'expected' before 'annual'.

34. On page 2, paragraph (4), line 2, insert 'located beyond the site boundary' after 'public'.

Changes to the Congressional letters

35. In paragraph 2, line 9, delete the hyphens in 'nevertheless'.