

KS/STUDY PLAN LETTER TO DOE

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NOV 27 1990

Mr. Dwight Shelor, Acting Associate Director
 Office of Systems and Compliance
 Office of Civilian Radioactive Waste Management
 U. S. Department of Energy, RW 30
 Washington, D.C. 20585

Dear Mr. Shelor:

SUBJECT: STATUS OF NRC REVIEWS OF DOE STUDY PLANS

The purposes of this letter are to inform DOE of the status of NRC staff reviews of the DOE study plans which have been formally transmitted to NRC and to request further information from DOE to assist NRC in scheduling its reviews.

The enclosure to this letter lists the 14 study plans which DOE has formally transmitted to NRC and reflects the review status of each one. The first five study plans listed, which were the study plans identified by DOE as being related to exploratory shaft facility (ESF) construction-phase testing, were transmitted to NRC in support of the ESF design contained in the Site Characterization Plan (SCP) for the Yucca Mountain site. Inasmuch as DOE is in the process of conducting an ESF alternatives study to reevaluate the ESF, these five study plans may be obsolete or need significant modification if a new or modified ESF alternative is chosen. Given the current state of uncertainty about the ESF, we do not believe it is a prudent use of NRC staff resources to review these study plans now. When DOE selects its ESF alternative, and considers these study plans in light of that selection, it should notify NRC whether these study plans are relevant to that ESF alternative.

We recognize that some aspects of some of these five study plans may be related to surface-based testing. If DOE identifies the portions of these study plans that are related to surface-based testing, affirms that those portions remain current, and indicates that those surface-based tests are scheduled to begin in the near-term, the NRC staff will take whatever steps are necessary to avoid being on DOE's critical path for starting work.

The sixth and seventh study plans listed in the enclosure have been reviewed by NRC. The dates when letters containing the results of the reviews were sent to DOE are shown in the enclosure.

Reviews of the eighth and tenth study plans listed in the enclosure are in progress. The acceptance/start work reviews (Phase I) have been completed and the results transmitted to DOE on the dates shown. Results of the detailed technical reviews of both documents are scheduled to be transmitted to DOE within a month.

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The ninth study plan listed in the enclosure covers one activity of the eight activities specified in the SCP under study 8.3.1.2.3.1, characterization of the site saturated-zone ground-water flow system. The one activity described is closely related to other activities in this study and could have significant impacts on or be significantly impacted by the studies yet to be described. Given the incompleteness of this study plan, we consider it to be difficult for the staff to perform an adequate review of the material provided. As NRC representatives stated at the July 19, 1990 NRC-DOE management meeting, the NRC would prefer to review study plans which are complete and not currently undergoing substantial revision. DOE acknowledged at that meeting that this study plan is being revised to incorporate descriptions of six additional planned activities. Accordingly, review of this study plan is presently being deferred.

The last four study plans listed on the enclosure have been transmitted to NRC in the past few weeks. However, the transmittal letters contained no information concerning when DOE plans to start the work described in the study plans. Such information would be useful to the NRC staff as it plans and schedules its reviews of the study plans. However, despite the lack of such information, the NRC staff has initiated Phase I reviews of the four study plans. Schedules for completion of these reviews will be finalized shortly.

In conclusion, the NRC proposes that, at the next NRC-DOE management meeting, DOE provide the information discussed above on the subject study plans so that NRC is assured that it is properly responding to DOE's need for NRC reviews of the study plans.

Sincerely,

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 John J. Linehan, Director
 Repository Licensing and Quality
 Assurance Project Directorate
 Division of High-Level Waste Management
 Office of Nuclear Material Safety
 and Safeguards

Enclosure: As Stated

- cc: R. Loux, State of Nevada
- C. Gertz, DOE/NV
- S. Bradhurst, Nye County, NV
- M. Baughman, Lincoln County, NV
- D. Bechtel, Clark County, NV
- D. Weigel, GAO

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Date: 11/27/90	: 11/27/90	:	:	:	:

DOE STUDY PLANS RECEIVED AS OF 11/20/90
AND THEIR REVIEW STATUS

STUDY PLAN	DATE RECEIVED	PHASE I REVIEW (DATE COMPLETED)	DETAILED REVIEW (DATE COMPLETED)
1. Water Movement Tests	2/9/89	*	
2. Characterization of the Yucca Mountain Unsaturated Zone Percolation ESF Study	2/9/89	*	
3. Characterization of Structural Features in the Site Area	2/9/89	*	
4. Excavation Investigations	2/9/89	*	
5. Characterization of the Site Ambient Stress Conditions	2/9/89	*	
6. Characterization of the Yucca Mountain Quaternary Regional Hydrology	6/30/89	11/24/89	6/08/90
7. Evaluating the Location and Recency of Faulting Near Prospective Surface Facilities	6/30/89	11/24/89	3/16/90
8. Mineralogy, Petrology, and Geochemistry of Transport Pathways	11/30/89	8/20/90	12/90 (scheduled)
9. Testing of the C-Hole Sites with Reactive Tracers	4/6/90	**	
10. Characterization of Volcanic Features	5/15/90	8/20/90	12/90 (scheduled)
11. Characterization of the Yucca Mountain Regional Surface--Water Runoff and Streamflow	10/4/90	In progress (Schedule TBD)	

STUDY PLAN	DATE RECEIVED	PHASE I REVIEW (DATE COMPLETED)	DETAILED REVIEW (DATE COMPLETED)
12. Laboratory Thermal Expansion Testing	10/4/90	In progress (Schedule TBD)	
13. Characterization of Flood Potential and Debris Hazards of the Yucca Mountain Site	10/11/90	In progress (Schedule TBD)	
14. Historical and Current Seismicity	10/22/90	In progress (Schedule TBD)	

* Review has been deferred because study plan is related to ESF construction-phase testing.

** Review has been deferred because study plan is incomplete and undergoing substantial revision.