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DISCUSSION POINTS FROM 9/15/93 ESF PRE-MEETING

Items from NRC letter of August 20, 1993:

- 1) DOE should have in place a design control process under which the design, rationale for the design, information needed for the design, etc. are integrated. Construction includes drilling boreholes to be used for design.
- 2) The staff would expect to see a discussion of deficiencies identified during recent audits, a discussion of the root cause *or to be taken* determined for each, a description of the corrective actions taken to rectify the deficiencies, and the steps DOE will establish to help ensure the problems do not reoccur.
- 3) DOE needs to answer the questions: 1) What are the documents that are needed to conduct a review and understand the complete ESF design. 2) How are these documents integrated? 3) What is the control mechanism in place to assure that ESF design documents are integrated with study plans? 4) How are ESF design documents integrated with study plans, etc. that discuss plans to gather information needed as input to design? 5) How are ESF construction sequences and schedules integrated with other schedules for gathering of information needed for ESF design and testing?

Items that NRC believes it would need during its ongoing prelicensing reviews include: The ESF design (that DOE is using to control its program), integrated with the GROA conceptual design and needed surface information (locations of site penetrating drillholes, etc. needed to provide information for design decisions). The level of detail of information provided would depend on the type of document being provided. The staff would expect to have information presented on the following aspects of the repository design at a level of detail consistent with Regulatory Guide 4.17. This would include:

- a) Drawings depicting the layout of ramps, drifts and ESF test areas.
- b) A description of the GROA design to level sufficient to show interface with ESF.
- c) A description of the interfaces between the ESF and GROA.
- d) A discussion of how the various Title II design packages are integrated with one another and their relationship to the overall design.
- e) A description of the design basis for the ESF including assumptions, the bases for assumptions, and logic behind decisions related to the design and design process.
- f) A discussion of what investigation contained in the SCP and what study described in Study Plans submitted to the NRC will be affected as a result of the current design to the design as identified through the integration process between the ESF design and study

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plans. Also discuss how DOE will document these results in implementing documents such as study plans. Finally, identify what study plans are considered on the critical path for completion of ESF design *and the sequencing of those studies with ESF design activities.*

The staff would also expect to be provided changes related to Study Plans that result from changes to the ESF design. The information would be consistent with the Level of Detail Agreement, and notification of any changes, additions, deletions of site disturbing activities 90 days prior to initiation of work.

Finally, through the observation of design reviews, quality assurance audits, and technical review activities, the staff would expect to get information on the detailed design that supports the information provided at the SCP level, including appropriate references. Some types of information the staff would expect to evaluate at this level would be the sequencing of surface based testing and design work, complete design drawings and calculations, and records to verify the acceptable implementation of the design control process.

- 4) DOE has not provided timely information such that the staff is able to evaluate changes in the ESF design as they occur. Although the SCP Progress reports can be used to present a summation of changes that have occurred during that reporting period or changes that would be timely to report in the Progress Reports, they do not allow the staff an opportunity to be provided real time changes. In addition, the NRC's On-site Representatives allow the staff to maintain cognizance of ongoing design work. But they are not the formal mechanism through which DOE is to communicate changes from the SCP baseline design to the staff. That approach is covered in the Site-specific agreement as being between the Director, HLPD and the DOE associate Director for Systems and Compliance.

DOE is responsible for notification of any major changes to the design, design process, and supportive tests. Supportive documents such as study plans, etc. should be revised and submitted 90 days prior to the initiation of major site disruptive work. Unless DOE has submitted a description of the design changes to the ESF, the staff would not be able to conduct its review of that study plan. DOE should provide this information in a timely manner such that the staff will have sufficient time to review that change by the time the study plan is submitted.

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