

Enclosure
Minutes from the December 13, 1990
Interactions Scheduling Meeting

On December 13, 1990, staff from the U.S. Nuclear Regulatory Commission (NRC) met with representatives from the U.S. Department of Energy (DOE). Although the meeting was noticed, no representatives from the State of Nevada or affected units of local governments attended. The purpose of the meeting was to discuss and schedule interactions in the area of high-level waste management between the staff and DOE through May 1991. A list of attendees is Attachment 1.

At the meeting, the staff and DOE agreed to schedule six interactions between January 1991 and May 1991. The list of agreed upon interactions is given in Attachment 2. In addition, nine interactions were identified as future interactions that will be scheduled after May 1991. They are contained in Attachment 3 along with the NRC proposed scopes and objectives. Also at the meeting, the staff and DOE agreed that there should be early discussions that establish the details of the agendas for the interactions. Before these discussions, the staff and DOE agreed that they would layout the documents and letters that contain key issues on the interactions topics.

Besides discussing and scheduling interactions, the staff and DOE agreed that the interactions should continue to focus on resolving concerns raised in the staff's Site Characterization Analysis (SCA). With respect to the SCA concerns, the staff questioned DOE on when it would be providing its responses to the SCA. DOE stated that it expected to transmit the responses within the next few weeks. Another topic discussed by DOE was the fact that it supports the continued use of visits permitted under Appendix 7 of the site-specific agreement between NRC and DOE. Finally, the staff and DOE discussed the proposed visit by DOE to the Center for Nuclear Waste Regulatory Analyses (CNWRA). The request for a visit was raised by DOE at the September 5, 1990 licensing and management meeting. At the October 29, 1990 licensing and management meeting, the staff agreed to propose an agenda and time for the visit. In fulfilling this commitment, the staff proposed an agenda for the meeting, a copy of which is in Attachment 4, and it was agreed that February 7, 1991 would be the date of the visit.

Joseph J. Holonich 12/24/1991

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Office of Nuclear Material
Safety and Safeguards
U.S. Nuclear Regulatory
Commission

Linda J. Desell 1/24/91

Linda Desell
Office of Civilian Radioactive
Waste Management
U.S. Department of Energy

Attachment 1
List of Attendees

NRC

J. Holonich
J. Linehan
D. Brooks
K. Stablein
J. Bunting

DOE

D. Shelor
L. Desell
A. Simmons
D. Dobson
J. Stockey
M. Blanchard

Science Applications International Corporation

M. Glora

Center for Nuclear Waste Regulatory Analyses

A. Whiting

U.S. Geologic Survey

R. Wallace

National Association of Regulated Utility Commissions

R. Callen

Attachment 2
List of Proposed Interactions

Topic: Exploratory Shaft Facility (ESF) Alternative Study and Characterization of the Calico Hills Formation

Objective: To present to the U.S. Nuclear Regulatory Commission (NRC) staff the U.S. Department of Energy (DOE) study, and answer questions related to how the regulatory considerations of 10 CFR Part 60 were factored into the ESF design option.

To discuss the technical and regulatory issues related to the characterization of the Calico Hills Formation.

Scope: Discussions should focus on the various alternatives considered by DOE and the comparative evaluation of alternatives to major design features that are important to the alternatives that would provide longer radionuclide containment and isolation. [10 CFR 60.21(c)(1)(ii)(D)] In addition, discussions will be held on the Mine Safety and Health Administration requirements contained in 10 CFR 60.131(b)(9).

This meeting will also focus on discussions of geologic, geochemical, hydrologic and engineering data needed to characterize the Calico Hills Formation. The meeting will address tests that need to be run to collect the data, and the process used to determine the need for characterizing the Calico Hills Formation. In addition, the discussion will cover why there is or is not a need to characterize the formation, and the impact the characterization will have on waste isolation. Also see Site Characterization Analysis (SCA) concerns 14 and 16.

Date: January 29, 30, and 31, 1991

Topic: Seismic Hazards Investigations Staff Technical Position (STP)

Objective: To discuss the technical and regulatory issues related to the identification of seismic hazards.

Scope: The discussion at this technical exchange will be on the STP being developed on this subject.

Date: February 20, 1991

Topic: Radionuclide Retardation Testing and Modelling

Objective: To discuss the technical and regulatory issues related to the methods planned for demonstrating applicability of laboratory data to repository transport calculations.

Scope: This technical exchange will focus on discussion of laboratory methods to simulate repository conditions of radionuclide transport on a small scale and methods of extrapolating those data to repository scale (both temporal and spatial). The discussions will also include mineral stability. Attendance should include experimenters and modelers. Also see SCA concerns 27, 28, 29, 30, and 96.

Date: March 20 and 21, 1991

Topic: Procedural Agreement Meeting

Objective: To discuss the inconsistencies identified with the procedural agreements and proposed revisions.

Scope: Discussion at this meeting should center around the inconsistencies with the procedural agreements identified at the October 29, 1990 Licensing and Management Meeting, and proposed revisions to the agreements or dispositions to address the items. Participation should be at the first-line supervisor level.

Date: March 12, 1991

Topic: Thermal Loads and Repository Design

Objective: To discuss the Staff Technical Position (STP) being developed in this area.

Scope: At this technical exchange, the staff will provide DOE and other program participants with an overview of the information that will be included in an upcoming STP. The meeting will give the participants an opportunity to gain insight into the staff work, and to provide early feedback to the staff.

Date: April 16, 1991

Topic: Waste Isolation Pilot Plant (WIPP) Round-Table Discussion

Objective: To provide the staff with an opportunity to observe dialogue between representatives of the Waste Isolation Pilot Plant (WIPP) performance assessment program and the Office of Civilian Radioactive Waste Management (OCRWM) performance assessment program.

Scope: Discussions will focus on a comparison of the performance assessment program at WIPP and the performance assessment program at OCRWM.

Date: May 15, 1991

Attachment 3
Interactions After May 1991

Topic: Waste Form: Glass

Objective: To discuss the technical and regulatory issues related to the expected performance of vitrified high-level waste in the Yucca Mountain environment.

Scope: Discussion should include planned vitrification activities at both Savannah River and West Valley, and foreign experience. This exchange should include a tour of the Defense Waste Processing Facility (DWPF). If necessary, the technical exchange and site visit can be held at different times. However, the site visit should be scheduled before the melter at DWPF is enclosed.

Date: After May 1991

Topic: Construction of a Complementary Cumulative Distribution Function (CCDF)

Objective: To discuss the technical and regulatory issues related to the construction of a CCDF

Scope: This technical exchange will address the use of a definition of scenarios consistent with the logic used to construct a CCDF, including human intrusion scenarios in the CCDF, and the use of expected partial performance measures to guide site characterization. Also see SCA comments 93, 95, 98, and 99.

Date: After May 1991

Topic: Waste Form: Spent Nuclear Fuel

Objective: To discuss the technical and regulatory issues related to the expected performance of spent fuel in the Yucca Mountain environment.

Scope: Discussions should include the various types of spent fuel and cladding and effects of burnup and defects.

Date: After May 1991

Topic: Scenario Development and Screening

Objective: To discuss the technical and regulatory issues related to the methods planned for developing and screening scenarios.

Scope: This technical exchange will address the current operational definition of scenarios, how scenarios are to be generated from elemental events and processes, what initial set of scenarios of elemental events and processes are to be screened for purposes of site characterization and appropriate methods for screening scenarios and how much should be implemented and documented. Also see SCA concerns 1, 95, 100, and 103.

Date: After May 1991

Topic: Natural Resources Assessment

Objective: To discuss the technical and regulatory issues related to the assessment of natural resources.

Scope: This technical exchange will address the geological, geophysical, and geochemical investigations, including those derived from satellite imagery, planned for natural resource assessments and how these investigations will be integrated with those planned for other site characterization activities. Also see SCA comment 53 and questions 14 and 15.

Date: After May 1991

Topic: Data Management

Objective: To discuss the inventory of site data and NRC computer access to the Site Engineering Properties Data Base.

Scope: This technical exchange will focus on progress that has been made on implementing the proposed organization of the data bases and development of computer access to these data bases by all DOE participants and NRC. The discussion would also include an update of the inventory of data in all DOE data bases and how much has been transferred to the Site Engineering Properties Data Base.

Date: After May 1991

Topic: Regulatory Strategy

Objective: To discuss the staff's strategy as given in SECY 90-207, "First Update of the Regulatory Strategy and Schedules for the High-Level Waste Repository Program."

Scope: The discussions should cover the status, concepts, and schedules given in SECY 90-207. DOE will present its observations on the SECY, and positions and recommendations on specific aspects of SECY 90-207.

Date: After May 1991

Topic: Saturated Zone

Objective: To discuss planned characterization and modeling activities of the groundwater flow system and the saturated zone, tracer testing and assessments of C-hole complex, and saturated zone groundwater travel time (GWTT) calculations and modeling.

Scope: This technical exchange will focus on study plans and Site Characterization Plan activities related to characterization and modeling activities of the groundwater flow system and the saturated zone, tracer testing and assessments of C-hole complex, and saturated zone GWTT calculations and modeling.

Date: After May 1991.

ATTACHMENT 4

AGENDA FOR DOE/NRC/CNWRA MEETING

February 1991

- 9:00 - 9:30 AM Introduction to SWRI/CNWRA
- 9:30 - 10:15 Background of CNWRA
- °Formation as an FFRDC
 - °Mission
 - °Purpose & Scope of Activities
 - °Organization
 - °Staff
 - °Facilities
- 10:15 - 10:30 Break
- 10:30 - 11:15 Program of CNWRA
- °Systems Engineering Approach
 - °Technical Assistance
 - °Research
 - °LSSA
- 11:15 - 12:00 Systems Engineering Approach to Regulatory Analysis
- °SRA Process Description
 - °PASS: functional capabilities and status
- 12:00 - 1:00 PM Lunch
- 1:00 - 2:00 Systems Engineering Approach to Regulatory Analysis (Cont'd)
- 2:00 - 2:30 Demonstration of PASS

NOTE: Possible dates are February 6, 7, 8

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