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LPDR - Wm-10 (2)
Wm-11 (2)
Wm-16 (2)

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'87 ABR 13 A11:15

10 April 1987

David Tiktinsky - SS623
U.S. Nuclear Regulatory Commission
Division of Waste Management
Washington, D.C. 20555

"NRC Technical Assistance
for Design Reviews"
Contract No. NRC-02-85-002
FIN D1016

Dear David:

Enclosed is Itasca's trip report for the 6-7 April 1987 meeting on the 30% Title II Design Review Meeting for SRP Exploratory Shaft Facility. Please call me if you have any questions.

Sincerely,

Roger D. Hart
Project Manager

cc: J. Greeves, Engineering Branch
Office of the Director, NMSS
E. Wiggins, Division of Contracts
DWM Document Control Room

Encl.
rdh/ks

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Itasca

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Distribution:
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(Return to WM, 623-SS) Sac.

ITASCA TRIP REPORT

DATES: 6-7 April 1987

LOCATION: Hyatt Regency West
Houston, Texas

PURPOSE: 30% Title II Design Review Meeting for SRP
Exploratory Shaft Facility

ATTENDEES: J. Daemen and R. Hart

PREPARED BY: R. Hart

SUMMARY

This meeting was held by SRPO for the purpose of performing a review of the Exploratory Shaft Facility design at the proposed site in Deaf Smith County, Texas. The design review included drawings and specifications of the Title II design at 30% completion by Parsons Brinckerhoff/PB-KBB. The following organizations were directly involved with the review: Battelle-ONWI; DOE-Chicago; DOE-HQ/Weston; Fluor/Morrison-Knutson; Golder Associates; Mine Safety Health Administration (MSHA); Parsons Redpath; SRPO; and the U.S. Army Corps of Engineers.

The review effort is coordinated by ONWI and will be performed over the period 6-25 April 1987. The final report on the review is to be submitted to SRPO on 11 May 1987.

The NRC and its consultants were invited by SRPO to attend this meeting as observers. The NRC will return to observe the comment resolution meeting, 22-24 April 1987. Andy Avel of SRPO is coordinating the visits by the NRC.

Several design documents form the basis for the design review; these are:

- (1) SRP Requirements Document (dated Nov. 7, 1986);
- (2) Technical Interface Specifications (dated Oct. 20, 1986);

- (3) ESF Draft Feasibility Study (dated Nov. 1986);
- (4) 30 CFR Part 57 — specifically, 30 CFR 57.21 (gassy mines);
- (5) Synthetic Data Base (dated 1986);
- (6) SRP Shaft Design Guide (dated Feb. 1987);
- (7) Detailed Design Criteria (dated Mar. 16, 1987);
- (8) Baseline Status Report (dated Feb. 27, 1987); and
- (9) QA program related documents.

The 30% design review covers 96 drawings and 56 specifications. Approximately 500 drawings and 150 specifications are estimated for the final design.

The drawings, specifications, design documents and related reports were made available for the reviewers. The NRC was also permitted to study these documents during the time of the visit.

Specific Observations

1. Several differences are apparent in the Title II design versus the Title I design. Specifically, the layout of the underground excavations has been changed and details of the shaft construction are different (e.g., freeze holes for shaft freezing have been deflected out from the shaft).
2. One supporting document recently prepared by ONWI (made available for the review) is the "ESF Flexibility Analysis" by R. W. Brusenback (dated March 1987). This document presents a strategy for including uncertainty allowances into the ESF design. The report responds to Appendix E "Generic Requirements for ESF" (dated Oct. 31, 1986) of the SRP Requirements Document. The flexibility analysis identifies two possible levels of expansion of the ESF: one level for up to approximately 10,000 lineal feet of drifting to account for potential additional testing needs; and a second level of approximately 60,000 lineal feet if perimeter drifting is required to investigate the stratigraphy. The flexibility analysis identifies that there is sufficient probability of a need for additional drifting to justify provisions within the ESF Title II design. Recommendations are made with regard to ventilation system, hoisting system, and supporting components that meet estimated flexibility requirements.

3. The revised layout for the underground excavations is apparently in response to the flexibility demands developed to meet Appendix E requirements. The layout is proposed to be better suited for expansion in any horizontal direction. The Title II layout involves approximately 5,000 lineal feet of drifting.

Recommendations

This meeting was very helpful in providing more information on the SRP ESF design. Additional meetings such as this are recommended.

Respectfully submitted,


Roger D. Hart

rdh/ks

COST BREAK-OUT

Labor

Jaak Daemen	8 hrs @ \$57.75/hr	\$ 288.75
Roger Hart	24 hrs @ \$24.04/hr	576.96
		<hr/>
	TOTAL LABOR	\$ 865.71

Actual Expenses

Travel

Airfare		
Daemen		\$ 278.00
Hart		291.00

Miscellaneous Travel Expenses		
Daemen (taxi)		\$ 21.00
Hart (taxi)		51.00

Lodging

Daemen		
(1 night @ \$61.05/night)		\$ 61.05
Hart		
(2 nights @ \$61.05/night)		122.10

Meals

Daemen		\$ 33.82
Hart		82.50

Miscellaneous Expenses
none

TOTAL EXPENSES: \$ 940.47