

Mr. Ralph Stein, Acting Associate Director  
Office of System Integration and Regulations  
Office of Civilian Radioactive Waste Management  
U. S. Department of Energy RW-24  
Washington, D. C. 20545

DEC 0 1 1988

Dear Mr. Stein:

Subject: Minutes of November 23, 1988 Meeting on the Exploratory Shaft Facility  
Design Acceptability Analysis

The purpose of this letter is to transmit the minutes on the subject meeting. These minutes were prepared by members of the U. S. Nuclear Regulatory Commission (NRC) staff and representatives of the U. S. Department of Energy (DOE). Based on the DOE information presented at the meeting, the staff has several points, which are given below, that it believes DOE should consider in the exploratory shaft facility (ESF) design acceptability analysis (DAA).

- (1) DOE should not rely upon existing ESF design solely at face value.
- (2) Although DOE is performing an alternatives analysis of shaft locations per 10 CFR Part 60.21, the NRC staff noted that Part 60.21 deals with major design features; therefore, DOE needs to define the major design features for the ESF and consider alternatives for them.
- (3) In its application of quality assurance to the DAA, DOE should perform at a minimum, one surveillance if not an audit.
- (4) It is not clear to the staff where Step 1(c) of the DAA agreed upon by NRC and DOE at the November 3, 1988 meeting is contained in the DOE process. In addition, the staff is not sure how the flowdown activities being performed by DOE for requirements from Part 60 to the Code of Federal Regulations Title 10 affect the DAA. Therefore, the staff requested that DOE provide additional explanations at the meeting presently scheduled for December 8, 1988.

The specific details of the meeting are contained in the enclosed minutes. If you have any questions or require additional information, feel free to contact the NRC project manager for the meeting, Joe Holonich, who can be reached at (301) 492-3403 or FTS 492-3403.

Sincerely,

**ORIGINAL SIGNED BY**

John J. Linehan, Acting Director  
Repository Licensing Project Directorate  
Division of High-Level Waste Management

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

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J. Bunting  
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J. Holonich  
M. Nataraja  
D. Gupta

OFC :RLPD	:RLPD	:	:	:	:
NAME: JHolonich	:JLinehan	:	:	:	:
DATE: 12/01/88	:12/01/88	:	:	:	:

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## ENCLOSURE

On November 23, 1988, members of the U. S. Nuclear Regulatory Commission (NRC) staff met with representatives from the U. S. Department of Energy (DOE), and the State of Nevada. The purpose of the meeting was to have DOE present an outline of the approach it plans to take to perform a design acceptability analysis (DAA) of the Title I design of the exploratory shaft facility (ESF). Attachment 1 is a list of attendees at the meeting. At the beginning of the meeting, the NRC stated that it would not provide any determination on the acceptability of the process. It did, however, note that where it believed problems existed, the staff would identify this to DOE. The DOE presentation covered two areas of discussion. The first area dealt with the DOE action plan for implementing the DAA, and the second covered the flowdown of requirements from Part 60 to the Code of Federal Regulations, Title 10 (10 CFR, Part 60) into ESF design criteria. Attachments 2 and 3 are copies of the DOE presentations on the DAA implementation and the flowdown activities, respectively.

In its presentation on the DAA, DOE reviewed the process it would use to perform the steps needed to perform the DAA. The steps for the DAA were agreed upon by DOE and the NRC during a November 3, 1988 meeting (letter from John J. Linehan, NRC to Ralph Stein, DOE, dated November 3, 1988). Besides describing how it would meet the particular steps of the DAA, DOE also discussed: (1) the comparative evaluations it would perform to consider alternative shaft locations; (2) identified the applicable elements of quality assurance (QA) that would be applied to the DAA; (3) the procedure it would follow to perform the DAA (a copy is contained in attachment 4); and (4) the plan it would use to document the historical design control process and QA program applied to the ESF design.

During this presentation, the NRC staff identified points that DOE should consider. For the discussion on how the process met the steps identified at the November 3, 1988 meeting, the staff wanted to ensure that DOE realized that the Department had to provide the rationale for deferring actions from Title I to Title II ESF design activities. DOE responded that it agreed with this point. Another point raised by the staff dealt with the independence of the DAA process. The staff wanted DOE to ensure that the DAA was a systematic and rigorous approach that independently showed the acceptability of the ESF Title I design. This included the independence of the people performing the DAA as well as thoroughly considering the existing information used in the DAA at more than face value. This included all of the information germane to the ESF design topics being evaluated. A third point raised by the NRC was the potential for a disconnect between the ESF design information in the Site Characterization Plan (SCP), and the information generated from the DAA. DOE responded that the section of the SCP containing the ESF design information had been expanded to include all of the available design information. In addition, DOE noted that the DAA would be complete and provided to the NRC staff at approximately the same time of the SCP. In the area of comparative evaluations, the staff indicated that it believed that the evaluation should not only look at shaft location as part of the alternatives, but it should also consider the ability to characterize the site and the representativeness of the data after the analysis considered waste isolation.


On the topic of the flowdown of 10 CFR, Part 60 requirements into specific ESF design criteria, the staff did not have any particular comments. However, it did note that it was worried that this flowdown analysis would be not be


completed until early 1989, and therefore, would be providing draft information to the DAA process in December 1988.

At the end of the meeting, the staff presented a summary of the points it had raised. These points are given below.

- (1) DOE should not rely upon existing ESF design information solely at face value.
- (2) Although DOE is performing an alternatives analysis of shaft locations per 10 CFR Part 60.21, the NRC staff stated that Part 60.21 deals with major design features; therefore, DOE needs to define the major design features for the ESF and consider alternatives for them.
- (3) In its application of QA to the DAA, DOE should perform at a minimum, one surveillance if not an audit.
- (4) It is not clear to the staff where Step 1(c) of the DAA agreed upon by NRC and DOE at the November 3, 1988 meeting is contained in the DOE process. In addition, the staff is not sure how the 10 CFR, Part 60 flowdown activities affect the DAA. Therefore, the staff requested that DOE provide additional explanations at the meeting presently scheduled for December 8, 1988.

DOE stated that it understood the staff points and would provide additional information on items (1) and (4) at the December 8, 1988 meeting. As stated earlier in these minutes, the NRC made no determination on the overall acceptability of the proposed process.

  
12/10/88  
Joseph J. Holonich, Sr. Project Manager  
Division of High-Level Waste Management  
Office of Nuclear Material Safety  
and Safeguards  
U. S. Nuclear Regulatory Commission

  
12/10/88  
Linda Powell, Chief  
Licensing Branch  
Office of System Integration and  
Regulations  
Office of Civilian Radioactive  
Waste Management  
U. S. Department of Energy

ATTACHMENT 1

List of Attendees

NRC

J. Holonich  
D. Gupta  
F. Cameron  
J. Linehan  
K. Stablein  
J. Conway  
M. Nataraja

GAO

K. Turner  
E. Nakamura

Newman & Holtzinger

S. Brammer

DOE

S. Kale  
N. Voltura  
G. Appel  
R. Lahoti  
M. Blanchard

DOE/Weston

S. Dam

State of Nevada

C. Johnson

**Attachment 2**

**DOE Presentation on Design Acceptability Analysis**

OVERVIEW OF THE DESIGN  
ACCEPTABILITY ANALYSIS

DOE-NRC MEETING

NOVEMBER 23, 1988

PRESENTED BY: MAXWELL BLANCHARD

**DOE ACTION PLAN FOR ADDRESSING  
NRC STEPS 1 - 5: DESIGN ACCEPTABILITY ANALYSIS**

**ELEMENTS OF DOE ACTION PLAN**

- EACH ELEMENT CORRELATES WITH STEPS OR PARTS OF STEPS IN THE NRC LETTER (LINEHAN TO STEIN, NOV. 14, 1988), ATTACHMENTS 2 AND 3.
- APPLICABLE PART OF NNWSI-88-9 FOR THIS ACTIVITY IS SECTION III - DESIGN CONTROL, (WITH SUPPORT FROM OTHER SECTIONS - SEE PAGE 7).
- APPLICABLE QUALITY MANAGEMENT PROCEDURE WITHIN THE YUCCA MOUNTAIN PROJECT OFFICE IS QMP-02-08 TECHNICAL ASSESSMENT REVIEW.
- THE TECHNICAL ASSESSMENT REVIEW WILL PRODUCE THE ACCEPTABILITY ANALYSIS AND COMPARATIVE EVALUATIONS OF THE ESF LOCATION.
- FINAL DOCUMENTATION WILL INCLUDE CONCLUSIONS ABOUT ESF TITLE I DESIGN AND RECOMMENDATIONS FOR CONSIDERATION IN ESF TITLE II DESIGN.



## DESIGN ACCEPTABILITY ANALYSIS: NRC STEPS 1 AND 2

ATTACHMENT 2: NRC LETTER	ELEMENTS OF DOE ACTION PLAN	AVAILABLE INFORMATION FOR TECHNICAL ASSESSMENT REVIEW	ACTION REQUIRED
Step 1(a)	1a. Identify all 10 CFR Part 60 requirements that are applicable to the design and construction of the ESF.	10 CFR 60 Flowdown Report; Part 60 Compliance Review for 100% Title I; SDRD Compliance Review; and SCP Section 8.4	Summarize 10 CFR 60 Report; develop text on flowdown to the ESF SDRD; Summarize SCP Section 8.4 information on Part 60 applicable requirements.
Step 1(b)	1b. Evaluate design interfaces <ul style="list-style-type: none"> <li>i. Develop a list of design and physical features/interfaces between ESF design, construction, operation, and siting, repository design, ESF testing and performance assessment.</li> <li>ii. Evaluate list of interfaces</li> </ul>	Requirements Documents, SCP-CDR; list from 1a  Comparison of above list and SDRD criteria	Prepare the list of interfaces; prepare a comparative evaluation showing how interfaces were addressed in the SDRD (or other requirements); identify interfaces or criteria not adequately addressed in list.
Step 2. 1st sentence and Step 1(c)	1c. Analyse the current design against the design criteria	100% Title I Design Review Record Memorandum	Evaluate Review Record Memorandum for completeness of treatment relative to 1a and 1b.

## DESIGN ACCEPTABILITY ANALYSIS: STEP 2

ATTACHMENT 2: NRC LETTER	ELEMENTS OF DOE ACTION PLAN	AVAILABLE INFORMATION FOR TECHNICAL ASSESSMENT REVIEW	ACTION REQUIRED
Step 2. 2nd & 3rd sentences	Step 2. Assess the current design against the design criteria from Step 1(c) to:		
	1) Demonstrate the long term waste isolation capability of the site is not compromised.	Point Paper Response to Objection # 4 & Section 8.4.3 (Impacts on Isolation)	Criteria identified in Step 1 will be evaluated to determine whether a) the criteria are relevant to isolation; b) the criteria were considered; and c) the adequacy of the treatment.
	2) Demonstrate that the ability to characterize the site is not compromised.	Point Paper Responses to Objections 3 & 4 & Section 8.4.	Same as for (1)
	3) Demonstrate that ESF site characterization activities would provide representative data.	Section 8.4.2 (Interference), SAND Reports	Summarize SCP text on representativeness of the characterization program with particular emphasis on the ESF location.
Step 2. 4th & 5th sentences	Evaluate the appropriateness of the data used in the design and how uncertainties were considered.	Reference Information Base and summaries of relevant evaluations and analyses in Sections 8.4.2 (Interference) and 8.4.3 (Impacts on Isolation)	Assess appropriateness of the data used in the calculations supporting the summaries in Section 8.4 of the SCP. Assess the project databases, including but not limited to, the RIB.

## DESIGN ACCEPTABILITY ANALYSIS: STEP 3-5

ATTACHMENT 2: NRC LETTER	ELEMENTS OF DOE ACTION PLAN	AVAILABLE INFORMATION FOR TECHNICAL ASSESSMENT REVIEW	ACTION REQUIRED
Step 3	Step 3. Compile documentation of design control process and quality assurance relied upon in ESF Title I.	Historical records relevant to Title I ESF design control and quality assurance (See Item 2E on agenda).	Compile all previous records to establish relevancy to ESF Title I design.
Step 4	Step 4. Prepare the Technical Assessment Review Record Memorandum (QMP-02-08); transmittal to the NRC.	Documentation of Technical Assessment Review.	Conduct Technical Assessment Review and prepare report per QMP-02-08, paragraph 3.5.
Step 5	Step 5. Identify deficiencies, if any, in the criteria list or interface list from Steps 1 and 2.	No specific information.	Summarize deficiencies identified in the criteria lists of Steps 1 & 2 and recommend action to DOE Management.

## ATTACHMENT 3 - COMPARATIVE EVALUATIONS RELATED TO ALTERNATIVE SHAFT LOCATIONS

ELEMENTS OF DOE ACTION PLAN	AVAILABLE INFORMATION FOR TECHNICAL ASSESSMENT REVIEW	ACTION REQUIRED
<p>Prepare comparative evaluation of alternative shaft locations, considering 1) current site conditions; 2) expected changes to these conditions over next 10,000 years; 3) low-probability disruptive events and processes over next 10,000 yrs; and 4) alternative conceptual models of conditions at the site.</p>	<p>SCP Chapters 1-4; Section 8.4.3 (Impacts on Isolation); Sinnock &amp; Lin (SNL, 1986)</p>	<p>A qualitative 3-part evaluation will be prepared as described in Column 1.</p>
<p>Evaluation of Bertram report has 3 parts (SAND 84-1003, ESF Site and Construction Method Recommendation Report):</p>		
<ul style="list-style-type: none"><li>• 1. Compare alternative locations with one another without ESF present for:<ul style="list-style-type: none"><li>a. Significant differences among alternative locations in their potential for waste isolation.</li><li>b. The influence these differences might have had on selection of ESF location.</li></ul></li><li>• 2. Compare alternative locations with one another assuming ESF has been constructed to:<ul style="list-style-type: none"><li>a. Examine any adverse effects on isolation.</li><li>b. Examine the influence these effects might have had on selection of ESF location.</li></ul></li><li>• 3. Compare the five alternative locations to the Yucca Mt. site with regard to factors contributing to waste isolation. Consider parameters such as GWT, thickness of UZ below repository, thickness of zeolite units beneath repository, and presence of volcanic glass.</li></ul>		

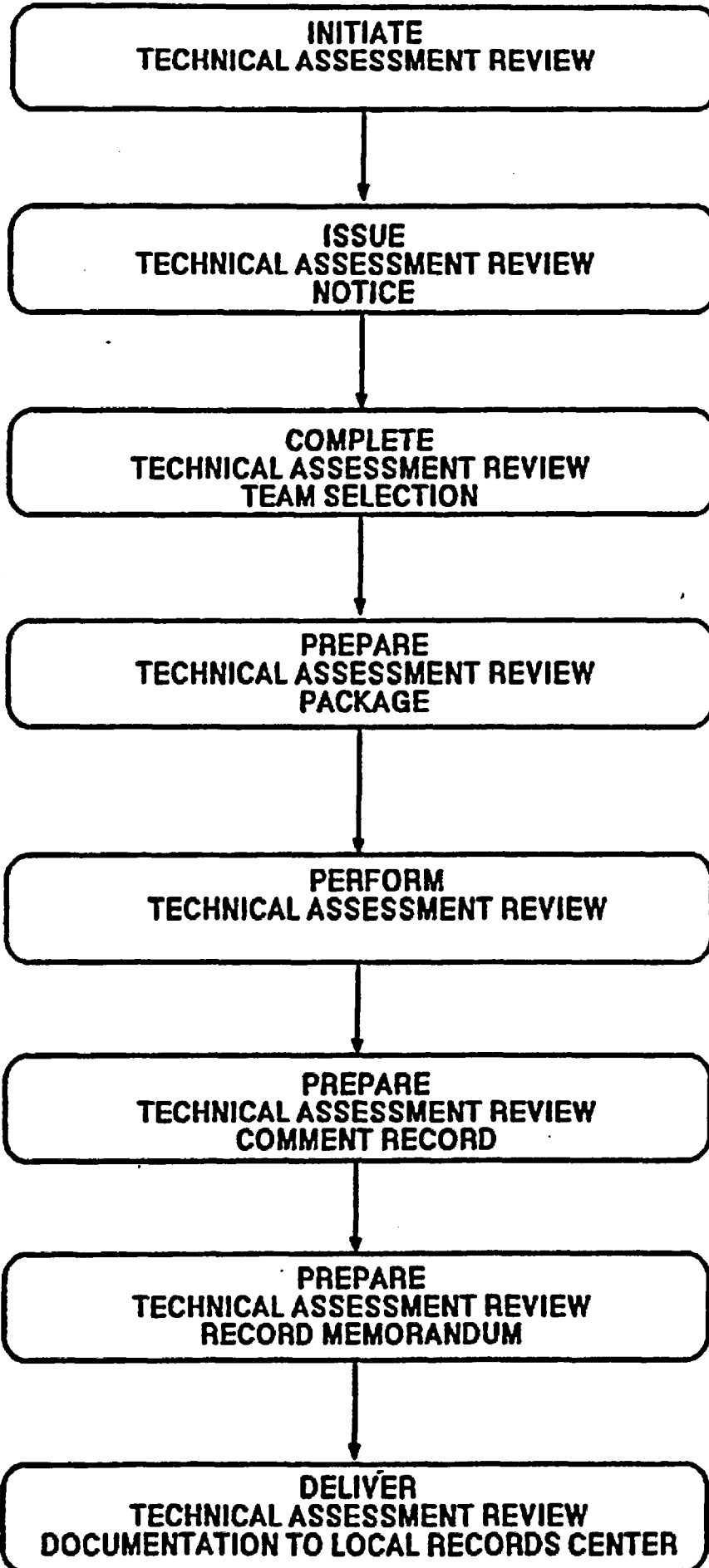
**IN ADDITION TO ATTACHMENT 3 - COMPARATIVE EVALUATIONS RELATED TO ALTERNATIVE SHAFT LOCATIONS**

<b>ELEMENTS OF DOE ACTION PLAN</b>	<b>AVAILABLE INFORMATION FOR TECHNICAL ASSESSMENT REVIEW</b>	<b>ACTION REQUIRED</b>
<p>Document the acceptability of additional requirements in SDRD for:</p> <ul style="list-style-type: none"><li>shaft location</li><li>shaft diameter</li><li>second shaft</li><li>shaft separation</li><li>testing interferences</li><li>testing needs</li></ul>	<p>SCP Section 8.4; EA</p>	<p>Prepare a summary of the documentation developed for Section 8.4 of the SCP.</p>

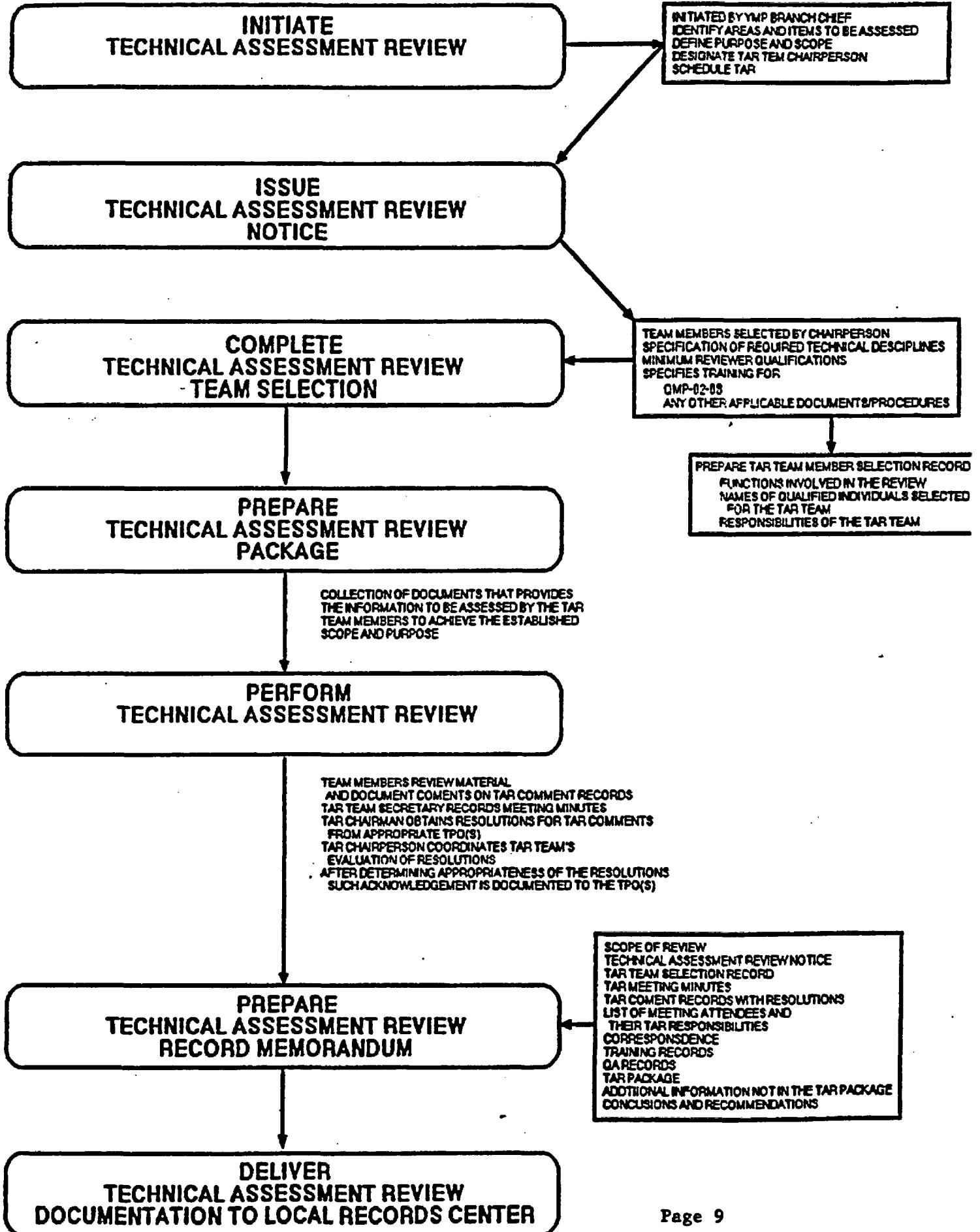
APPLICABILITY OF QAP 88-9, REV. 1, TO DESIGN ACCEPTABILITY ANALYSIS  
(ATTACHMENT 2, PARAGRAPH 2 OF NRC LETTER)

- QAP-88-9 NNWSI PROJECT QA PLAN SECTION III, PARAGRAPH 5.0,  
TECHNICAL REVIEWS
  - SUPPORTED BY: SECTION I, ORGANIZATION
  - SECTION II, QA PROGRAM
  - SECTION V, INSTRUCTIONS, PROCEDURES & DRAWINGS
  - SECTION VI, DOCUMENT CONTROL
  - SECTION XVI, CORRECTIVE ACTION
  - SECTION XVII, QA RECORDS
  - SECTION XVIII, AUDITS/SURVEILLANCES
  
- QMP-02-08 TECHNICAL ASSESSMENT REVIEW
  - PROJECT OFFICE IMPLEMENTING PROCEDURE

**QMP-02-08, TECHNICAL ASSESSMENT REVIEW PROCEDURE**



**QMP-02-08, TECHNICAL ASSESSMENT REVIEW PROCEDURE**





**QMP 02-08, SECTION 3.5: TECHNICAL ASSESSMENT  
REVIEW RECORD MEMORANDUM**

1. SCOPE OF THE REVIEW.
2. TECHNICAL ASSESSMENT REVIEW NOTICE.
3. TECHNICAL ASSESSMENT REVIEW MEETING MINUTES
4. TECHNICAL ASSESSMENT REVIEW TEAM SELECTION RECORD.
5. TECHNICAL ASSESSMENT REVIEW COMMENT RECORDS IDENTIFYING COMMENTS AND RESOLUTIONS.
6. LIST OF MEETING ATTENDEES AND, WHEN SPECIFIED, THEIR TECHNICAL ASSESSMENT REVIEW RESPONSIBILITIES.
7. CORRESPONDENCE RELATING TO THE TECHNICAL ASSESSMENT REVIEW.
8. ADDITIONAL INFORMATION
  - DESIGN ACCEPTABILITY ANALYSIS
  - COMPARATIVE EVALUATIONS RELATED TO ALTERNATIVE SHAFT LOCATIONS
  - DOCUMENTATION PACKAGE
9. CONCLUSIONS AND RECOMMENDATIONS.

**AGENDA ITEM 2-F: SUMMARY OF ACTION PLAN FOR DOCUMENTATION OF HISTORICAL DESIGN  
CONTROL PROCESS AND QUALITY ASSURANCE PROGRAM**

- **PREPARE A PLAN**
- **IDENTIFY PARTICIPANTS INVOLVED**
- **DEVELOP SPECIFIC INFORMATION/RECORD REQUIREMENTS FOR:**
  - **RESPONSIBLE ORGANIZATIONS AND INDIVIDUALS**
  - **GOVERNING PLANS AND PROCEDURES**
  - **APPLICABLE QA PROGRAM**
  - **QUALIFICATIONS OF RESPONSIBLE INDIVIDUALS**
  - **RESULTS OF PREVIOUSLY PERFORMED TECHNICAL AND MANAGEMENT ASSESSMENTS**
- **TRAIN INFORMATION RETRIEVAL PERSONNEL**

**AGENDA ITEM 2-F: SUMMARY OF ACTION PLAN FOR DOCUMENTATION OF HISTORICAL DESIGN CONTROL PROCESS AND QUALITY ASSURANCE PROGRAM (CONTINUED)**

- **COMPILE THE INFORMATION/RECORD REQUIREMENTS INTO A REPORT WHICH INCLUDES:**
  - **PLAN, REPORT, ORGANIZATION RESPONSIBILITIES, INDIVIDUAL TRAINING RECORDS.**
  - **SPECIFIC TOPICS IN THE REPORT INCLUDE:**
    - **HIERARCHY OF REQUIREMENTS DEVELOPED**
    - **IDENTIFICATION OF INTERFACES**
    - **REPORTS HAVING ANALYSES RELATED TO REQUIREMENTS FOR SHAFT LOCATION, SHAFT DIAMETER, SECOND SHAFT, SHAFT SEPARATION, TESTING INTERFERENCES, AND TESTING NEEDS**
    - **TITLE I DESIGN DOCUMENTATION**
    - **THE PROCESS USED TO TRACK 10 CFR 60 REQUIREMENTS INTO THE DESIGN**

**Attachment 3**

**DOE Presentation on 10 CFR Part 60 Flowdown**

STATUS OF  
10 CFR 60 FLOWDOWN  
INTO ESF DESIGN REQUIREMENTS DOCUMENTS

DOE-NRC MEETING

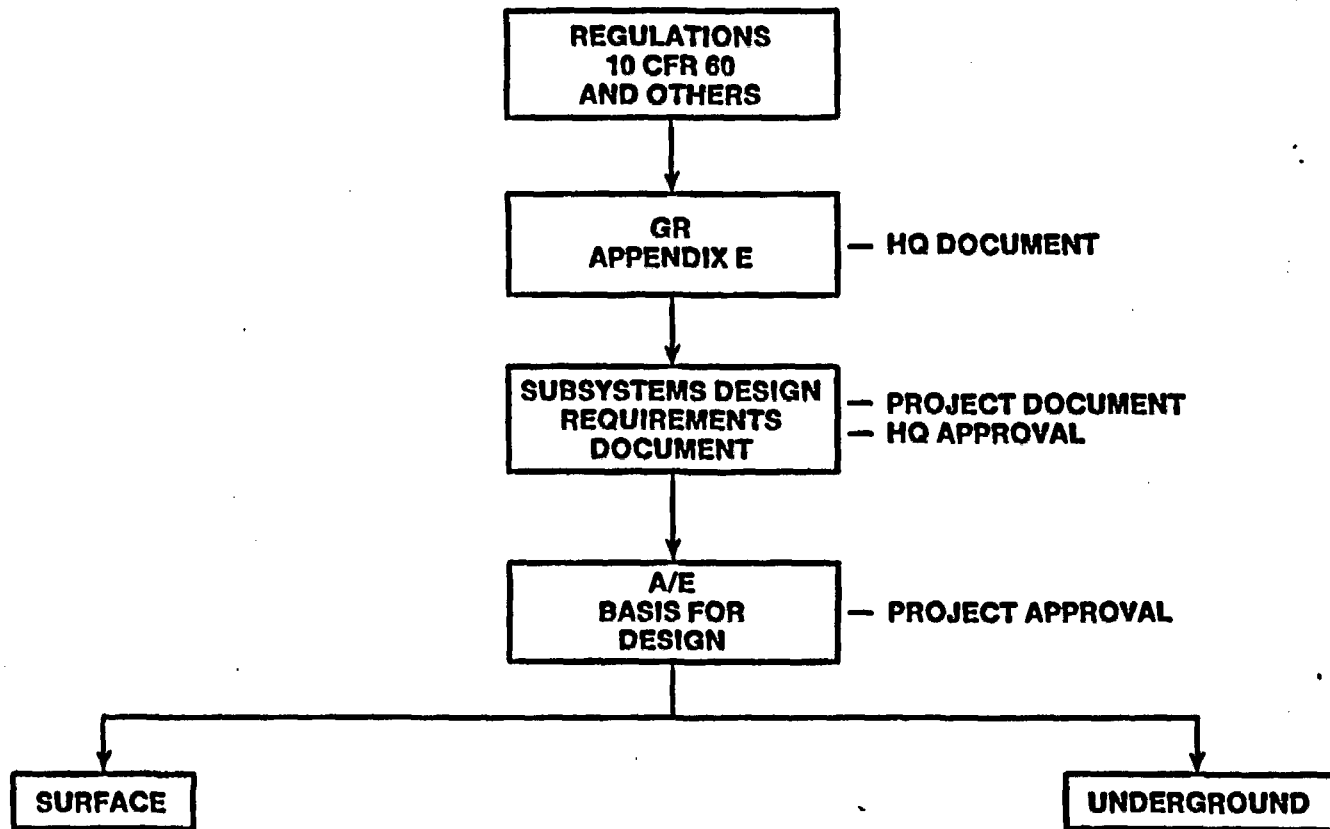
NOVEMBER 23, 1988

PRESENTED BY: RAM LAHOTI

## PURPOSE OF BRIEFING

- TO APPRAISE NRC OF THE STATUS OF DOE EFFORTS CURRENTLY UNDERWAY TO VERIFY THE FLOWDOWN OF 10 CFR 60 REQUIREMENTS INTO THE ESF DESIGN REQUIREMENTS DOCUMENTS, INCLUDING:
  - GENERIC REQUIREMENTS DOCUMENT (GR) APPENDIX E
  - YMPO SDRD
  - A/E BASIS FOR DESIGN

# 10 CFR 60 REQUIREMENTS FLOWDOWN TO DESIGN DOCUMENTS



## BRIEFING INCLUDES

- BACKGROUND INFORMATION
- STATUS OF REQUIREMENTS FLOWDOWN REVIEWS
- FUTURE ACTIONS



BACKGROUND INFORMATION

PURPOSE AND SCOPE OF TECHNICAL REVIEW  
(10 CFR 60 TO APPENDIX E)

- PERFORM A COMPREHENSIVE DOCUMENTED REVIEW TO DETERMINE THE APPLICABILITY OF 10 CFR 60 REQUIREMENTS TO THE DESIGN, CONSTRUCTION, AND OPERATION OF THE ESF.
- COMPARE THE APPLICABLE 10 CFR 60 REQUIREMENTS WITH THE GR APPENDIX E.
- DETERMINE THE APPROPRIATE SECTIONS OF APPENDIX E WHERE ADDITIONAL REQUIREMENTS NEED TO BE ADDRESSED.
- DOCUMENT PROPOSED MODIFICATIONS TO APPENDIX E.

REVIEW PROCEDURE  
(10 CFR 60 TO APPENDIX E)

- TECHNICAL REVIEW TO ASSURE COMPLIANCE WITH 10 CFR 60 REQUIREMENTS WAS CONDUCTED IN ACCORDANCE WITH 10 CFR 60 SUBPART G.
- TECHNICAL REVIEW WAS CONDUCTED IN ACCORDANCE WITH QUALITY IMPLEMENTING PROCEDURE (QIP) 3.2 "TECHNICAL REVIEWS".
- TECHNICAL REVIEW GROUP (TRG) CONSISTED OF PERSONNEL FROM DOE/HQ AND CONTRACTORS.
- TRG SELECTION WAS BASED ON INDIVIDUALS' QUALIFICATIONS, BACKGROUND, AND EXPERTISE IN THEIR SPECIFIC DISCIPLINES.
- TRG MEMBERS COMPLETED AN INDOCTRINATION AND TRAINING SESSION TO MEET THE REQUIREMENTS OF QIP 2.1 "INDOCTRINATION AND TRAINING" PRIOR TO COMMENCEMENT OF THE REVIEW.

REVIEW PROCESS  
(10 CFR 60 TO APPENDIX E)

- TRG MEMBERS MADE INDIVIDUAL DETERMINATIONS AS TO WHICH 10 CFR 60 REQUIREMENTS WERE APPLICABLE TO THE DESIGN, CONSTRUCTION, AND OPERATION OF THE ESF.
- AFTER GROUP DISCUSSIONS, CONSENSUS WAS REACHED AS TO THE APPLICABILITY OF EACH REQUIREMENT, WITH THE APPROPRIATE RATIONALE DOCUMENTED.
- TRG REVIEWED APPENDIX E TO DETERMINE IF THE APPLICABLE REQUIREMENTS WERE ADEQUATELY ADDRESSED.
- FOR REQUIREMENTS NOT ADEQUATELY ADDRESSED, PROPOSED MODIFICATIONS TO THE TEXT WERE PREPARED AND DOCUMENTED.
- SUBMIT TECHNICAL REVIEW REPORT TO OCRWM MANAGEMENT.

PURPOSE AND SCOPE OF TECHNICAL REVIEW  
(APPENDIX E TO SDRD AND BASIS FOR DESIGN)

- PREPARE A MARKED-UP DRAFT APPENDIX E INCORPORATING THE CHANGES RECOMMENDED BY THE TRG
- COMPARE THE APPENDIX E MARK-UP WITH THE SDRD AND BASIS FOR DESIGN TO DETERMINE IF THE APPLICABLE 10 CFR 60 REQUIREMENTS WERE ADEQUATELY ADDRESSED.
- DETERMINE THE APPROPRIATE SECTIONS OF THE SDRD WHERE ADDITIONAL REQUIREMENTS NEED TO BE ADDRESSED.
- DOCUMENT PROPOSED MODIFICATIONS TO THE SDRD.
- PROVIDE COMMENTS ON THE BASIS FOR DESIGN TO YMPO FOR CONSIDERATION.

REVIEW PROCEDURE & PROCESS  
(APPENDIX E TO SDRD AND BASIS FOR DESIGN)

- REVIEW CONDUCTED IN ACCORDANCE WITH THE SAME QA PROCEDURES AS THE APPENDIX E REVIEW.
- REVIEW PROCESS WAS THE SAME AS THE PROCESS USED FOR APPENDIX E.

## STATUS OF REVIEWS

## STATUS OF REQUIREMENTS FLOWDOWN REVIEWS

- FLOWDOWN OF 10 CFR 60 REQUIREMENTS INTO GR APPENDIX E
  - REVIEW COMPLETE
  - REPORT IN PREPARATION
- FLOWDOWN OF 10 CFR 60 REQUIREMENTS FROM APPENDIX E TO SDRD
  - REVIEW COMPLETE
  - REPORT IN PREPARATION
- FLOWDOWN OF 10 CFR 60 REQUIREMENTS FROM SDRD TO BASIS FOR DESIGN.
  - REVIEW IN PROGRESS.



FUTURE ACTIONS

## FUTURE ACTIONS

- UPON APPROVAL OF RECOMMENDED CHANGES, BASELINE CHANGE PROPOSALS FOR REVISION OF APPENDIX E WILL BE SUBMITTED TO CHANGE CONTROL BOARD.
- UPON APPROVAL OF BASELINE CHANGE PROPOSALS BY THE CHANGE CONTROL BOARD, APPENDIX E WILL BE REVISED
- BASED ON CHANGE CONTROL BOARD APPROVAL, PROJECT WILL INCORPORATE THE CHANGES INTO THE SDRD AND BASIS FOR DESIGN
- ALL ACTIONS ABOVE TO BE COMPLETED TO SUPPORT TITLE II DESIGN.

**Attachment 4**  
**DOE Procedure QMP-02-08**  
**"Technical Assessment Review"**