



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
AUG 08 1988

MEMORANDUM FOR: Ronald Ballard, Chief  
Technical Review Branch  
Division of High-Level Waste Management

FROM: John J. Linehan, Acting Chief  
Operations Branch  
Division of High-Level Waste Management

SUBJECT: REQUEST FOR TECHNICAL REVIEW BRANCH ASSISTANCE ON  
SCHEDULES FOR TECHNICAL POSITIONS

Enclosure 1 is a list of technical positions (TPs) that was developed by the Operations Branch (HLOB) and the Technical Review Branch (HLTR) as background to support the Division budget. Since the list was developed with the HLTR Section Leaders, it represents those TPs that are presently being developed or are planned by HLTR.

Recently, HLOB has been tasked with the assignment of preparing a Commission paper that discusses the Division's efforts on regulatory guidance. In this paper, HLOB has been requested to address rulemakings, regulatory guides, and TPs. Therefore, the purpose of this memorandum is to request assistance from HLTR in the areas of TPs. Basically, the information that is needed on the individual TPs identified in Enclosure 1 is (1) background information on the applicable parts of the regulations, (2) a short summary of what the TP will address, and (3) a revised schedule for completion of the TPs.

In order to assist HLTR in providing the necessary information, Enclosure 2 contains an annotated outline of the type of information desired. For each TP identified in Enclosure 1 that is the responsibility of HLTR, please provide the information identified in Enclosure 2. In addition, HLTR should prepare a revised schedule using the generic schedule given in Enclosure 3 and the original found in Enclosure 1. In preparing the schedule, HLTR should use the generic durations given in Enclosure 3 as a guide. Where possible, HLTR should adhere to the generic schedules; however, deviations are acceptable if justified. No revisions to the FTE and dollar amount budgeted for the TPs in Enclosure 1 should be made.

As I am sure you realize, there are several TPs that also are the subject of rulemakings. Examples include Anticipated and Unanticipated Events and Groundwater Travel Time. Because of this, HLTR should either identify if the TP in Enclosure 1 will be eliminated or if the TP will still be issued to address an acceptable methodology once a final rule on the subject has been issued. If a TP falls into the latter category, its schedule should be consistent with the projected schedule for completion of the rulemaking.

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In order to support the schedule for the Commission paper, it is requested that HLTR provide the needed information by Thursday, August 11, 1988. The HLTR response should be coordinated at the branch level and transmitted as a single document. If you require any additional assistance, please contact the responsible project managers, Robert Johnson for the Commission paper itself at x20409 or Joe Holonich for specific TP questions at x23403.

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John J. Linehan, Acting Chief  
Operations Branch  
Division of High-Level Waste Management

Enclosures: As stated

cc: D. Chery, HLTR  
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ENCLOSURE 1

LIST OF TECHNICAL POSITIONS

# STAFF TECHNICAL POSITIONS

## SECTION:

Task Title	Priority	Task Leader	Develop Scope				Develop Internal Draft				Develop External Draft				RES\$
			Compl. Date	SW	FTE	\$	Compl. Date	SW	FTE	\$	Compl. Date	SW	FTE	\$	
DESIGN															
1. Borehole and Shaft Sealing in the Unsaturated Zone	1	Gupta	7/1/88	6		0	10/1/88	14		145	6/1/89	14		85	
2. Extrapolation of Short-term Data to Long-term Results	1														
Geomechanical	1	Gupta	7/1/88	2		0	11/1/91	5		30	7/1/91	5		0	
Mechanical	1	Peterson	7/1/88	2		0	11/1/91	7		10	7/1/91	12		0	
Geochemistry	1	Bradbury	7/1/88	8		20	01/1/91	36		100	7/1/91	16		50	50
3. Design, Construction and Monitoring of ESF	1	Peshel	8/1/88	3		0	12/1/88	15		90	4/1/89	15		75	
4. Waste Retrievality	1	Tanious	12/1/88	15		15	6/1/90	15		145	1/1/91	10		40	
5. Level of Retrieval Demonstration Needed During Site Characterization	1	Tanious	7/1/88	4		20	12/1/89	4		15	6/1/90	4		10	
6. Repository Design	2	Tanious	6/1/89	15		15	1/1/91	50		360	9/1/91	50		100	
MATERIALS															
7. Boundary Conditions for EBS Analysis	1	Chang	12/1/88	3			1/1/91	5			7/1/91	8			
8. Substantially Complete Containment	1	Peterson	6/1/88	2			9/1/88	7			6/1/89	12			

## STAFF TECHNICAL POSITIONS

SECTION:

Task Title	Priority	Task Leader	Develop Compl. Date	Scope SW	FTE	\$	Develop Compl. Date	Internal SW	Draft FTE	\$	Develop Compl. Date	External SW	Draft FTE	\$	RES\$
9. Acceptable Scope for Waste/Package EBS Testing Program	1	Peterson	7/1/88	2			10/1/88	7		10	7/1/89	12			
10. Waste Package Reliability 2 (Revision)	2	Chang	1/1/89	3			8/1/89	6			2/1/90	10			
HYDROLOGY															
11. Pre-emplacement GWT	1	Ross	-				-				11/1/88	20		30	100
12. Adequate Hydrology and Climate Site Characterization	1	Pohle	6/1/88	4		10	1/1/89	30		200	5/1/89	20		50	120
GEOCHEMISTRY															
13. Environment of EBS Package	1	Bradbury	11/1/88	8		10	1/1/91	16		200	9/1/91	12		50	100
14. Radionuclide Transport	1	Bradbury	12/1/88	10		20	1/1/91	52		200	9/1/91	16		50	100
15. Rock/Water Chemical Interactions	1	Bradbury	9/1/88	8		10	5/1/90	26		250	9/1/90	12		50	100
GEOLOGY															
16. Anticipated Processes and Events Unanticipated Processes and Events	1	Trapp	Complete	0		0	Complete	0		0	9/30/88	0			

RJOHNSON STP CHARTS

## STAFF TECHNICAL POSITIONS

SECTION:

Task Title	Priority	Task Leader	Develop Scope			\$	Develop Internal			\$	Develop External			\$	RES\$
			Compl. Date	SW	FTE		Compl. Date	SW	Draft FTE		Compl. Date	SW	Draft FTE		
17. Pre-closure Earthquake Hazard Evaluation Methods	1	Blackford	6/24/88	2		5	6/1/89	11		8	9/1/89	4		4	
18. Probabilistic Seismic Hazard Analysis	1	Ibrahim	6/1/88	2		0	11/1/90	15		20	6/1/90	12		15	
19. Probabilistic Volcanic Hazard Analysis	1	Abrams	8/1/88	3		4	11/1/90	15		20	9/1/89	12		15	
20. Tectonic Models Evaluation	1	McConnell	7/1/88	2		4	1/1/91	15		20	9/1/91	12		15	
21. Natural Resources Assessment Methods	1	Lefevre	6/1/88	3		8	9/1/88	15		20	9/1/89	12		15	
22. Geologic Mapping of Shafts/Drifts	1	Cardone	11/1/88	3		12	3/1/89	11		8	7/1/89	5		4	
23. Geomorphic Hazards Analysis	1	Lefevre	4/1/89	3		4	1/1/91	15		8	6/1/91	5		4	
COMPLIANCE DEMONSTRATION															
24. Implementation of EPA Containment Requirement	1	Fehringer	11/1/88	3			3/1/89	7		10	11/1/89	14		10	
25. Scenario Identification and Screening	1	Fehringer	9/1/88	3			1/1/89	7		10	6/1/89	14		10	

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# STAFF TECHNICAL POSITIONS

## SECTION:

Task Title	Priority	Task Leader	Develop Scope				\$	Develop Internal Draft				\$	Develop External Draft				\$	RES\$
			Compl. Date	SW	FTE			Compl. Date	SW	FTE			Compl. Date	SW	FTE			
26. Model V and V	1	Code11 Mo Hydro Material Geotech Geology	2/1/89	4				1/1/91	7 2 2 2 2 2			10	9/1/91	14			10	50
27. Data and Parameter Uncertainty	1	Code11 Geochem Hydro Material Geotech Geology	10/1/88	3				1/1/91	7 2 2 2 2 2			10	9/1/91	14			10	50
28. Formal Use of Expert Judgement	1	Brooks	7/1/88	3				12/1/89	7			10	7/1/90	14			10	
29. Pre-closure Performance Assessment	1	Neel Hydro Geology Geotech Materials Geochem	6/1/88	3				10/1/88	9 2 2 2 2 2			10	6/1/89	10			10	

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# STAFF TECHNICAL POSITIONS

SECTION:

Task Title	Priority	Task Leader	Develop Scope				\$	Develop Internal Draft				\$	Develop External Draft				RES\$
			Compl. Date	SW	FTE	Compl. Date		SW	FTE	Compl. Date	SW		FTE	Compl. Date	SW	FTE	
1. Pre-closure Radiation Safety Analysis	3																
2. Identification of Performance Confirmation Testing	3																
3. Criteria for Alternative EBS Release Rates																	
4. Criteria for Alternative Waste Package Containment	3																
5. Waste Package ASME/ANSI Code Requirements	3																
6. Hydrologic Siting Criteria	3																
7. Hydrologic Monitoring and Surveillance after Permanent Closure	3																
8. Post-Closure Dose Factors/Radiation Protection	3																
9. QA/QC of Drill and Core Logs	3																

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## Enclosure 2

### Annotated Outline

TP Title:  
Lead Technical Contact:  
Additional Technical Contacts:

#### 1.0 Regulatory Evaluation

In preparing this section, provide information on what specific part of 10 CFR 60 the TP is addressing or if appropriate, other parts of the Regulations. For example, the TP on Seismotectonics deals with 10 CFR Part 100, Appendix A. Likewise, the TP on Site Sealing deals with, in part, 10 CFR Part 60.34(a) and 10 CFR Part 60.34(b). Not only should the TP identify the specific section of CFR that is being addressed, but it should also be associated with a performance objective. Therefore, the related performance objective should be included.

#### 2.0 Summary of Guidance

In this section, a summary should be prepared that discusses the guidance the TP will contain. Generally, it should discuss what guidance will be given and, if possible, provide supporting details. At a minimum, it should identify what new information besides that contained in the Regulations will be given in the TP.

#### 3.0 Justification for Staff Effort

Finally, describe why a TP is needed. What is required here is the rationale for deciding to develop a TP. The type of information that is needed here is justification as to why the staff is undertaking this effort and not DOE. Several examples may include the fact that DOE has requested staff guidance in this area; it is apparent to the staff that DOE does not view the regulations in the same way as the staff; or previous staff experience indicates guidance is needed.

# Enclosure 3

## Generic

### TP Schedule

Milestone	Elapsed Time(wk)	Accumulated Time(wk)	Date
Initiate need for TP	0	0	(1)
Obtain PPSAS Number	1	1	
Preliminary Outline Complete	2	3	
Internal Draft	16	19	
Internal NRC Comments	4	23	
Public-Comment Draft	8	31	
Federal Register Notice/ Transmittal to ACNW	3	34	
Public Comment Period Closed	8	42	
Public Meeting on disposition of comments	8	50	
ACNW Meeting	2	52	
Final TP	8	60	

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(1) To be completed by individual author for each TP. This should be the date that work on the TP will actually begin.