

October 11,2000

MEMORANDUM TO: Janet R. Schlueter, Acting Chief
High-Level Waste Branch
Division of Waste Management
Office of Nuclear Material Safety and Safeguards

FROM: Manny Comar, Project Manager **/R/**
Projects and Engineering Section
High-Level Waste Branch
Division of Waste Management
Office of Nuclear Material Safety and Safeguards

SUBJECT: FORTHCOMING U.S. NUCLEAR REGULATORY COMMISSION
AND U.S. DEPARTMENT OF ENERGY TECHNICAL
EXCHANGE AND MANAGEMENT MEETING ON
UNSATURATED AND SATURATED FLOW UNDER
ISOTHERMAL CONDITIONS KEY TECHNICAL ISSUES

DATE/TIME of MEETING: October 31 - November 2, 2000
8:00 a.m. - 6:15 p.m. (MST)

LOCATION: Sheraton Albuquerque Uptown Hotel
2600 Louisiana Blvd., NE
Albuquerque, New Mexico

PURPOSE: Discuss resolution of open issues related to the Key Technical
Issue of unsaturated and saturated flow under isothermal
conditions

AGENDA: Attached

PARTICIPANTS:

<u>NRC</u>	<u>DOE</u>	<u>Nevada</u>	<u>NV Counties</u>
DBrooks	DHanlon	SFrishman	DBechtel
NColeman	CNewbury	et. al.	et. al.
et. al.	DWilliams		
	et. al.		

* Meetings and technical exchanges between NRC and DOE are open to members of the public, petitioners, interveners, or other interested parties wishing to attend as observers pursuant to the spirit of "Policy Statement on Staff Meetings Open to the Public," 65 Federal Register 56964, dated September 20, 2000. The revised policy states that public notice of staff meetings open to the public will be provided via the Internet at the U.S. Nuclear Regulatory Commission Web site. Members of the public can also contact the staff toll free at 1-800-397-4209.

Meeting Notice to J. R. Schlueter from M. Comar dated: October 11, 2000

cc: R. Loux, State of Nevada
S. Frishman, State of Nevada
L. Barrett, DOE/Wash, DC
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S. Hanauer, DOE/Wash, DC
C. Einberg, DOE/Wash, DC
J. Carlson, DOE/Wash, DC
N. Slater, DOE/Wash, DC
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S. Brocoum, YMPO
R. Clark, YMPO
A. Gil, YMPO
C. Hanlon, YMPO
T. Gunter, YMPO
G. Dials, M&O
J. Bailey, M&O
D. Wilkins, M&O
M. Voegelé, M&O
S. Echols, Winston & Strawn
B. Price, Nevada Legislative Committee
J. Meder, Nevada Legislative Counsel Bureau
D. Bechtel, Clark County, NV
E. von Tiesenhausen, Clark County, NV
A. Kalt, Churchill County, NV
H. Ealey, Esmeralda County, NV
L. Fiorenzi, Eureka County, NV
A. Remus, Inyo County, CA
B. Duke, Lander County, NV
J. Pitts, Lincoln County, NV
J. Wallis, Mineral County, NV
L. Bradshaw, Nye County, NV
M. Murphy, Nye County, NV
J. McKnight, Nye County, NV
B. Ott, White Pine County, NV
D. Weigel, GAO
W. Barnard, NWTRB
R. Holden, NCAI
C. Williams, NIEC
R. Arnold, Pahrump County, NV
J. Lyznicky, AMA
R. Clark, EPA
F. Marcinowski, EPA
R. Anderson, NEI
R. McCullum, NEI
S. Kraft, NEI
J. Kessler, EPRI
R. Wallace, USGS
R. Craig, USGS
W. Booth, Engineering Svcs, LTD
J. Curtiss, Winston & Strawn

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NColeman CNewbury et. al. et. al.
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DRAFT AGENDA
DOE/NRC TECHNICAL EXCHANGE AND MANAGEMENT MEETING
UNSATURATED AND SATURATED FLOW UNDER ISOTHERMAL CONDITIONS KEY
TECHNICAL ISSUES
SHERATON ALBUQUERQUE UPTOWN HOTEL
2600 LOUISIANA BLVD, NE
ALBUQUERQUE, NEW MEXICO 87110
OCTOBER 31 - NOVEMBER 2, 2000
8:00 a.m. - 6:15 p.m. (MST)

INTERESTED PARTIES MAY PARTICIPATE IN THE AGENDA-SETTING TELECON SCHEDULED FOR 11:00 A.M. PDT (2:00 P.M. EDT) OCTOBER 17, 2000 BY CALLING 1-301-231-5539, then enter Passcode 4206#

INTERESTED PARTIES CAN PARTICIPATE IN THE OCTOBER 31 - NOVEMBER 2, 2000 TECHNICAL EXCHANGE AND MANAGEMENT MEETING VIA TELECON BY CALLING 1-505-284-4444 PASSCODE 168

Objective: Provide the basis to resolve open subissues related to the Saturated Zone part of the Unsaturated and Saturated Flow Under Isothermal Conditions (USFIC) Key Technical Issue (KTI) and to provide the basis to resolve the Unsaturated Zone Present-Day Shallow Infiltration subissue of the same KTI.

Times are approximate because the agenda items are expected to provide a framework for wider ranging discussions. Time allotted for each presentation includes time for the DOE presentation and time for accompanying discussion.

Tuesday October 31, 2000

8:00 – 8:20 AM	Introduction/Objectives/Logistics Purpose of the interaction (DOE/NRC)
8:20 – 8:45 AM	Key Technical Issue for Unsaturated and Saturated Flow Under Isothermal Conditions -- Summary of Status from DOE Perspective (DOE - C. Newbury/D. Coleman)
8:45 – 9:30 AM	Subissue 3: Present-day Shallow Infiltration · DOE presentation (A. Flint, Hevesi) · Discussion
9:30 - 9:45 AM	BREAK
9:45 - 10:15 AM	Caucus on Subissue 3
10:15 – 10:45 AM	DOE/NRC Discussion of Resolution Status
10:45 – 12:00 PM	Subissue 6: Matrix diffusion: Saturated Zone Aspects

	· DOE presentation: Laboratory and C-well testing; matrix diffusion modeling (Reimus, Umari) · Discussion
12:00 - 1:00 PM	LUNCH
1:00 – 1:45 PM	Caucus on Subissue 6
1:45 – 2:15 PM	DOE/NRC Discussion of Resolution Status
	Subissue 5: Saturated Zone: Ambient flow conditions and likely dilution mechanisms
2:15 - 3:15 PM	Acceptance Criterion 1: DOE has considered conceptual flow and data uncertainties · DOE Presentation: uncertainties, consideration of uncertainties and incorporation of SZ expert elicitation suggestions on reduction of uncertainties (Arnold, Kuzio) · Discussion
3:15 - 3:30 PM	BREAK
3:30 - 4:30 PM	Acceptance Criterion 5: Estimates of key hydrologic parameters · DOE presentation: Determination of total and effective porosity [Alluvium Testing Complex] (Umari, Reimus) · Discussion
4:30 - 5:30 PM	Caucus on first part of Subissue 5
5:30 – 6:00 PM	DOE/NRC Discussion of Resolution Status
6:00 - 6:15 PM	Closing remarks for the first day
6:15 PM	Adjourn first day

Wednesday, November 1, 2000

8:00 – 9:30 AM	Subissue 5 continued: Acceptance Criterion 2: Delineation of flow paths · Nye County presentation: EWDP Phase II Progress and Preliminary Findings--EWDP Phase III Plans (Buqo) · DOE presentation: Water table transition from tuffs to alluvium (Eddebbbarh, Arnold) · Discussion
9:30 – 9:45 AM	BREAK

9:45 – 11:15 AM	Acceptance Criterion 3: Moderate hydraulic gradient and large hydraulic gradient; and Acceptance Criterion 4: Potentiometric maps and cross-sections · DOE presentation on SD-6 and WT-24 (Tucci) · DOE presentation on maps and 3-D flow model (Tucci, Zyvoloski) · Discussion
11:15 – 11:45 AM	Caucus on Criteria 2, 3, and 4
11:45 - 12:45 PM	LUNCH
12:45 - 1:15 PM	DOE/NRC Discussion of Resolution Status
1:15 - 2:45 PM	Subissue 5 continued; Acceptance Criterion 6: Mathematical groundwater models, and Acceptance Criterion 8: Dilution · DOE presentation: Water level model, Hydrogeologic Framework model, Groundwater flow model (Faunt, Zyvoloski, Kwicklis) · DOE presentation: particle tracking model (Robinson, Arnold) · Discussion
2:45 – 3:00 PM	BREAK
3:00 - 4:00 PM	Caucus on criteria 6 and 8
4:00 – 4:45 PM	DOE/NRC Discussion of Resolution Status
4:45 - 5:00 PM	Closing remarks for the second day

Thursday, November 2, 2000

8:00 - 9:15 AM	Subissue 5 continued: Acceptance Criterion 9: Upwelling water · DOE presentation: fluid inclusion studies (Z. Peterman) · Discussion
9:15 - 9:30 AM	BREAK
9:30 - 10:15 AM	Caucus on criterion 9
10:15 – 10:45 AM	DOE/NRC Discussion of Resolution Status
10:45 - 11:15 AM	DOE presentation on SZ Features, Events, and Processes (FEPS) · DOE presentation: FEPs (T. Brown) · Discussion
11:15 - 1:00 PM	LUNCH and Caucus on KTI agreements
1:00 - 1:30 PM	Closing Comments
1:30 PM	Adjourn third day