



United States Department of the Interior

GEOLOGICAL SURVEY
BOX 25046 M.S. 418
DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO: WM Record File
102

WM Project 11

Docket No. _____

PDR

LPDR

November 26, 1984

Distribution: <u>REB</u>	<u>DRM</u>	<u>J Giarratana</u>
<u>MJB</u>	<u>HJM</u>	<u>WKerr</u>
<u>JDB</u>	<u>CFR</u>	<u>SCoplan</u>
(Return to WM, 623-SS)	<u>KStablein</u>	<u>C²</u>

Dr. Donald L. Vieth, Director To: KStablein
Waste Management Project Office From: PPreetholt
U. S. Department of Energy
P. O. Box 14100
Las Vegas, NV 89114-4100

Dear Dr. Vieth:

This retracts the first paragraph of my letter of September 28 to you in which I noted that the period January - April 1985 would be available for geology and hydrology workshops with NRC.

Seth Coplan's letter of September 6, 1984, received in this office on October 26, states that NRC will provide the results of the July 1984 hydrology data review after they have received and analyzed additional information. This list of additional information includes compilations of data in new formats for NRC's ease of review, information not yet derived from raw measurements in the field and laboratory, and even draft reports not yet available for release. In effect, Coplan's letter states that the results of disrupting our offices for a week (in addition to preparation and follow-up time) are held hostage until we deliver information that requires new work or that cannot be released by USGS policy.

In order to avoid double jeopardy with respect to NRC criticisms, it is necessary that we have adequate time to evaluate the results of previous workshops and data reviews and, when appropriate, to make programmatic adjustments before subjecting ourselves to further reviews. Therefore, we will begin the process of scheduling additional workshops or data reviews, subject to the 4-month time period specified in the NRC/DOE site-specific agreement, only after we have received the results of the previous meetings on the topic and have had time to evaluate their impact, normally about 30 days.

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PDR WASTE PDR
WM-11

William W. Dudley, Jr.
Technical Project Officer

Attachment

NV 845269

NOV 29 1984

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WM BUCKET CONTROL CENTER

cc: J. F. Devine, USGS, Reston
J. R. Rollo, USGS, Reston
G. D. Bennett, USGS, Reston
E. H. Roseboom, USGS, Reston
G. A. Dinwiddie, USGS, Reston
E. H. Baltz, USGS, Denver
W. E. Wilson, USGS, Denver
M. B. Blanchard, WMPO
J. S. Szymanski, WMPO
M. Glora, SAIC, Las Vegas
E. L. Wise, SAIC, Golden
T. O. Hunter, SNLO
D. T. Oakley, LANL
L. D. Ramspott, LLNL
M. E. Spaeth, SAIC, Las Vegas
P. T. Prestholt, NRC, Las Vegas (Through D. L. Vieth)

WWD/pnb
0351P

1. Jpe⁹ 2. Physl - Copy fr: Wilson
Bennett
Dinwiddie ph
File NRC Data Reviews

WM-11/KS/84/08/10/0/D

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SEP 6 1984

Dr. Donald L. Vieth, Director
Waste Management Project Office
U. S. Department of Energy
Nevada Operations Office
P. O. Box 14100
Las Vegas, NV 89114

WMP r/f
NMSS r/f
CF
REBrowning
HJBell
JBunting
PAItomare
MRKnapp
LBarrett
LBHigginbotham
HJMiller
RRBoyle
SCoplan
JLinehan
JKennedy
RJohnson
RWright
KStablein & r/f
PDR
LPDR, B

Dear Dr. Vieth:

During July 24-27, 1984, members of the NRC technical staff and consultants conducted a hydrogeology data review at the United States Geological Survey in Denver, Colorado. Attached are lists of attendees, of the data reviewed, and of the data requested.

After we receive the remaining data requested of the USGS during the data review, we will analyze that data and provide you with the results of our critical review of that material and the data reviewed during the visit.

Sincerely,

"ORIGINAL SIGNED BY"

Seth M. Coplan, Section Leader
NTS Project Section
Repository Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Enclosures:

- 1. List of Attendees at the Hydrogeology Data Review
- 2. List of Data Reviewed
- 3. List of Data Requested

FILE NO.

OCT 5 1984

RECEIVED
USGS/NNWSE
OCT 26 1984

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C :WMP:ejc :WMP :WMP : : : :
ME :KStablein :SMCoplan :HJMiller : : : :
TE :9/ /84 :9/ /84 :9/ /84 : : : :

DATA REQUESTED FROM THE U.S.G.S. DURING THE NNWSI HYDROLOGY DATA REVIEW

1. USGS unsaturated-saturated report containing statistical distributions of:
 - a. porosity
 - b. moisture content (by weight and/or volume)
 - c. saturation (%) etc. using laboratory tests on cores
2. Plots of:
 - a. moisture characteristic curves--water saturation as a function of moisture tension
 - b. relative permeability as a function of moisture tension used to derive relative permeabilities
3. Copy of video (TV) log of USGS hole UZ-1
4. Blue print of unsaturated zone monitoring instruments and locations for USGS hole UZ-1
5. Isotopic map (from R. Waddell)
6. Computer printout of water quality analyses in and around Yucca Mountain (~319 analysis A-K)
7. Details of a typical installation of a continuous water level monitoring station using a pressure transducer
8. Construction records and periodic water level measurements taken in wells and piezometers
9. Details of geologic descriptions and hole construction records for the water table well series
10. Map of Franklin Lake Playa showing well locations
11. Detailed geologic map by Bob Scott
12. G-1 hydro-testing index in Robison's file (request has been filled)
13. Copy of Parvis Montazer's thesis (final)
14. Open-file report 84-xxx on unsaturated parameters at well H-1, by Weeks and Wilson
15. Letter from Holmes and Narver to P. Montazer date 10/4/83 re: NTS-TEC;

MTL/83-99; Lab report no. 83-406

16. Geologic and geophysical logs for all of the H-wells and the water table wells
17. Pictorial summary (like the one for C-1) showing geophysical and geologic logs or geologic descriptions for wells UE-25C 1,2,3; UE 25P-1, UE 25 b-1, and G-3
18. From some of the injection tests H_p in mV was back calculated using a linear extrapolation. The H_p in mV was then converted to feet by some formula. Please provide:
 - a. the theoretical basis for the linear extrapolation of H_p in mV
 - b. the methodology for converting H_p in mV to H_p in feet(Gene Rush should be able to provide this data from Well B-1)