

✓426,1 DB/87/01/27 WM87014

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JAN 28 1987

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ORNL

WM Project 10, 11, 16
Docket No. _____

PDR ✓

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Dr. A. D. Kelmers
Chemical Technology Division
Building 4500 N/Room 268
P. O. Box X
Oak Ridge National Laboratory
Oak Ridge, TN 37831

PDR-1
LPDR-WM-1012
WM-11 12,
WM-16 12,

Dear Dr. Kelmers:

SUBJECT: CONTRACT NO. NRC-50-19-03-01, DIN B-0287, ORNL NO. 41-37-54-92-4,
"TECHNICAL ASSISTANCE IN GEOCHEMISTRY", DECEMBER (1986)
MONTHLY PROGRESS REPORT

I have reviewed the December monthly progress report dated January 7, 1987.
Based on my review, I have the following comments.

- ° Progress to date is satisfactory.
- ° ORNL reviews of Gamma and Alpha Radiation Levels in a Basalt High-Level Waste Repository: Potential Impact on Container Corrosion and Packing Properties (RHO-BW-SA-462 P), 1985, and "Migration of Trace Elements into Water-exposed Natural Fissure Surfaces ..." were received. If there are any NRC comments, they will be included the next NRC monthly response letter.
- ° Based on the discussions that took place during the NRC/ORNL planning meeting for this project, it was agreed that FY 87 work will be as follows:
 1. A topical report concerning the solubility radionuclides in a basalt geochemical environment (Final NUREG/CR-Jan/Feb, 1987).
 2. A topical report concerning geochemical conditions in basalt (Final NUREG/CR-April/May, 1987).
 3. A topical report concerning matrix diffusion (Final NUREG/CR-July/Aug., 1987).
 4. A letter report concerning data/information needs for geochemical issue resolution (Draft - April 1987)
 5. A letter report concerning acceptable methods/strategies/approaches for collecting data/information needed for issue resolution (Draft - June 1987).
 6. A letter report concerning the precision/accuracy/uncertainty of data/methods/strategies/approaches (Draft - Aug 87?/FY 88?).

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Items 4, 5 and 6 represent a significant new effort aimed at providing us with guidance needed for SCP review. The milestone dates are tentative. ORNL needs to develop a work plan and milestones for completing this effort. I will discuss this with you on the telephone during week of January 26, 1987.

- I am pleased that the results of the sorption workshop are being prepared for publication. Based on my review of the draft letter report, the final document should include more discussion to support the uncertainties caused by the lack of detail/understanding of specific geochemical processes. The point of including this type of discussion would be to try to quantify the effects of the various sources of uncertainty. Enclosure 1 is an example of what I have in mind (Attachment 1).

The action taken by this letter is considered to be within the scope of the current contract (FIN B-0287). No changes to cost or delivery of contracted services and products are authorized. Please notify me immediately if you believe that this letter would result in changes to cost or delivery of contracted products.

Sincerely,

David J. Brooks
Geochemistry Section
Geotechnical Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Enclosure:
As Stated

426.1 DB/87/01/27 WM87014

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OFFICIAL CONCURRENCE AND DISTRIBUTION RECORD

LETTER TO: Dr. A. D. Kelmers
 Chemical technology Division
 Building 4500 N/Room 268
 P. O. Box X
 Oak Ridge National Laboratory
 Oak Ridge, TN 37831

FROM: David J. Brooks
 Geochemistry Section
 Geotechnical Branch
 Division of Waste Management

SUBJECT: CONTRACT NO. NRC-50-19-03-01, DIN B-0287, ORNL
 NO. 41-37-54-92-4, "TECHNICAL ASSISTANCE IN GEOCHEMISTRY",
 DECEMBER (1987) MONTHLY PROGRESS REPORT

DATE: 87/01/

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CONCURRENCES

ORGANIZATION/CONCUREE	INITIALS	DATE CONCURRED
WMGT/DBrooks	<u>DB</u>	87/01/27

*Rec'd & mtd
 B.J.C.
 1-27-87 2:50*

