

OCT 25 1985

426.1/B0290/JWB/85/10/24

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Dr. Gary K. Jacobs  
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Oak Ridge National Laboratory  
Oak Ridge, TN 37831

WM-RES  
WM Record File  
B0290  
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WM Project LPDR (B, N, S) 10, 11, 16  
Docket No. \_\_\_\_\_  
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SAC

Dear Dr. Jacobs:

SUBJECT: REVIEW OF SEPTEMBER MONTHLY PROGRESS REPORT FOR B0290, "LABORATORY EVALUATION OF DOE RADIONUCLIDE SOLUBILITY DATA AND SELECTED RETARDATION PARAMETERS, EXPERIMENTAL STRATEGIES, LABORATORY TECHNIQUES AND PROCEDURES"

I have reviewed the September, 1985 Monthly Progress Report dated October 7, 1985 for the subject contract. Based on my review, progress to date is satisfactory.

The best argument for acquiring a germanium detector for analyzing solutions from sorption tests is its ability to differentiate between multiple radionuclides. At present, I am unaware of any published DOE reports describing sorption of multiple radionuclides. As noted in the Letter Report on "Conservatism in Batch Sorption Experiments" by A.D. Kelmers, the presence of multiple radionuclides can reduce the sorption ratio of the individual radionuclides. Thus, I can envision that at some time in the future, we may want to determine the effects of multiple radionuclides on sorption parameters. As I mentioned at the Contract Review, to explore the possibilities for purchasing this equipment, I require a detailed description of your analytical equipment. Please list advantages and disadvantages of the equipment you have and the new equipment you need.

As per our telephone conversation of October 22, 1985, I am looking into the methods to temporarily suspend the requirement that B-0290 produce publishable quarterly reports. While the experimental equipment and methodologies are being changed to reflect conditions in tuff, I expect that few results will be publishable. However, to keep me informed about the various methodologies you are testing, in lieu of quarterly reports, I would probably need either extended Monthly Progress Reports or letter reports.

Concerning the acquisition of site specific groundwater from Yucca Mountain, I will need to know how much of each groundwater you require in your experimentation. We will need to supply our own containers and arrange for shipping. It is my impression from discussions I have had with N.K. Stablein

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of the Repository Projects Branch that the DOE wants only to be advised early on about the acquisition of site-specific material requiring special preparation. I do not think that the groundwaters fall into this category.

The action taken by this letter is considered to be within the scope of the current contract FIN B-0290. No change to cost or delivery of contract products is authorized. Please notify me immediately if you believe this letter would result in changes to costs or delivery of contract products.

Sincerely,

John W. Bradbury  
Geochemistry Section  
Geotechnical Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

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