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APR 29 1985

Ms. Susan K. Whatley
Oak Ridge National Laboratory
P.O. Box X
Chemical Technology Division
Building 4500 N, MS 211
Oak Ridge, TN 37831

Dear Ms. Whatley:

SUBJECT: REVIEW OF MARCH 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 March, 1985 Monthly Progress Report dated April 11, 1985, for the subject contract. Based on my review, progress to date is satisfactory.

The results of the technetium studies in March are interesting in that they show the importance of sample preparation on the measured sorption parameters. The question remains concerning the relevance of the use of crushed basalt in sorption experiments that are intended to model far-field conditions. Groundwater will probably contact secondary minerals coating fractures instead of fresh basalt. The use of fresh crushed basalt in experiments simulating near-field conditions might also be questionable inasmuch as the backfill material may be altered by the time radionuclides are released from the canisters. Might these concerns be discussed in one of the quarterly reports of B0290 or the topical or letter reports of B0287?

The Letter Report on geochemical modeling raises a number of valid concerns which could influence the tasks of this contract. As pointed out, interpretation of experimental results should be emphasized in geochemical modeling. It follows that the results of the sorption/solubility experiments in B0290 would be more easily interpreted if better or more complete characterization of the liquid and solid run products were performed. Next week, I will discuss with you the significance of this report and details of the possible directions the geochemical modeling effort should take.

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

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products is authorized. Please notify me immediately if you believe this letter would result in changes to costs or delivery of contract products.

Sincerely,

Original Signed By

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

OFFICE :	WMGT	JWB	:	:	:	:	:	:
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