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FEB 14 1985

426.1/WRK/A1756/85/02/11

- 1 -

Dr. Malcolm D. Siegel  
 Division 6431  
 Sandia National Laboratories  
 Albuquerque, NM 87185

Dear Dr. Siegel:

SUBJECT: CONTRACT NO. NRC 50-19-03-01/FIN A-1756, "GEOCHEMICAL SENSITIVITY ANALYSIS"

I have reviewed the quarterly progress report for the first quarter of FY85 for the above contract, dated February 4, 1985. Based on my review of this report, I have the following comments:

- On page 5, paragraph 3, you state that the thermochemical data base is being formatted to be compatible with PHREEQE. On page 11, you state that a portion of the sorption data base will be formatted for use in MINEQL. What were these choices based on? Is there a reason the data bases are being formatted for two different codes?
- I have a question regarding the use of the Pitzer-type equations (page 6). Do you plan any work on high-ionic strength solutions (greater than 3.0 M) in the near future? If not, since the data are so sparse for these equations, perhaps it would be better to delay these calculations until such time as we need data for high ionic strength solutions. Perhaps at that time there will be more useful data.

I will be in touch with you regarding a potential data and agenda for your visit to the NRC.

The action taken by this letter is considered to be within the scope of the current contract FIN A-1756. No changes to costs or delivery of contract products is authorized. Please notify me immediately if you believe this letter would result in changes in costs or delivery of contracted products.

Sincerely,

Original Signed By

Walton R. Kelly  
 Geochemistry Section  
 Geotechnical Branch  
 Division of Waste Management  
 Office of Nuclear Material Safety  
 and Safeguards

WM-RES  
 WM Record File  
 A-1756  
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WM Project 10, 11, 16  
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