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(Return to WM, 623-SS)

426.1/D1021/DP/86/02/03

Mr. Mark J. Logsdon, Project Manager
Nuclear Waste Consultants, Inc.
8341 South Sangre de Cristo Road
Suite 6
Littleton, CO 80127

Dear Mr. Logsdon:

I have reviewed your Monthly Progress Report for December, dated January 9, 1986. This report describes the status of Nuclear Waste Consultants' technical assistance under Contract No. NRC-02-85-009. Progress made to date under this contract is satisfactory. Relative to ongoing work, I have the following comments:

Task 1 - NNWSI

Subtask 1.1

Your letter report on progress toward becoming familiar with the NNWSI project, as required by Subtask 1.1, was received. Based on your report I understand that the forthcoming report which will contain your review of the NNWSI Issue Hierarchy will provide additional comments on the NRC issues.

I forwarded a printout of my NNWSI bibliography list to you last week. I will forward an additional copy to Water, Waste and Land, Inc. later in the week. They should have a copy of each document on the list. Please have Mr. Davis verify this.

Subtask 1.2

No comments.

Subtask 1.3

Attached is a copy of a letter from Don Veith (WMPD) to King Stablein (WMPD) which outlines recommended meetings for 1986. Although this letter may be revised based on an upcoming meeting between the Projects and DOE Headquarters, note that there are three meetings which could potentially involve us. First is a meeting related to the NNWSI Project Issue Hierarchy. While this is a priority of the Nevada Operations Office, it is still not clear if DOE Headquarters will be supportive of such a meeting. They may prefer to handle this on a generic basis. Nevertheless, you have a copy of the issues under review and we will be in

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a position to support such a meeting if it occurs. The NRC lead in this area is Seth Coplan's Performance Assessment Section. The level of our participation has not been defined as yet. Second is a meeting on Hydrology/Geochemistry. Because this is such a broad topic I want feedback from you on what our priority should be. For example, should the meeting be on the Unsaturated Zone, Saturated Zone or both? Should we limit the meeting to discussion of conceptual models and defer testing to another meeting or vice versa? Topics must be limited for the meeting to be of any use. Third is a meeting on Exploratory Shaft Testing. Clearly, this would be limited to the Unsaturated Zone but would not include any surface based testing such as the UZ holes or neutron holes. Before such a meeting we would require copies of the ES test plans for review.

My opinion is that three Hydrology meetings prior to receipt of the SCP would be useful. In broad terms:

1. Unsaturated Zone: A discussion of their conceptualization followed by review of any surface based testing.
2. Exploratory Shaft: Review of Unsaturated Zone testing done in the ES.
3. Saturated Zone: A discussion of their conceptualization followed by review of any surface based testing.

Please return your ideas on priorities for meetings within two week of receipt of this letter.

Also attached for your information is a copy of the NNWSI Project Organization Charts. In addition, I have included a copy of the Draft Testing Schedule prepared by the USGS. This schedule is a broad background of site testing related to Geology, Geophysics, Tectonics and Volcanism, Stream Flow, Groundwater Analyses, Saturated Zone, Unsaturated Zone, Future Climates, etc. I think its very useful in getting an idea where the USGS is headed relative to site testing.

I notice that we do not have a formal review of USGS WRI 84-4345, "Conceptual Hydrologic Model of Flow in the Unsaturated Zone, Yucca Mountain, Nevada" by Montazer. While the Hydrology team reviewed this document during review of the Draft EA, I think we need a separate written review done. I have already tasked William and Associates to do so and I think it important for McWhorter's Group do the same. This is a good mechanism for you to lay out those technical matters you will be proposing

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to evaluate although I want that proposal in a separate document. The review of WRI 84-4345 should begin this month.

A related document which should be reviewed also is SAND 84-7202, "Hydrologic Mechanisms Governing Fluid Flow in Partially Saturated, Fractured, porous Tuff at Yucca Mountain" by Wang. Dr. Osiensky of W&A tells me the discussion in this paper is perhaps better than in the Survey's report. These reports should be reviewed at the same time.

Subtask 1.4

No comments.

Subtask 1.5

No comments.

Task 2 - BWIP

Subtask 2.1

I have noted your comments on NRC issues will be included with the comments on DOE Issue Hierarchy, due in February.

Subtask 2.2

No comments.

Subtask 2.3

Your trip report for the BWIP Hydrogeology meeting and pre-meeting held in Richland, WA during December was received. In addition, your review of SD-BWI-TP-040 was received. Mr. Weber is preparing a follow-up letter to DOE. I will have him forward a copy to you when completed. Mr. Weber informs me that he appreciated your team's support and dedication, which helped make the consultation with DOE successful.

We have received a review of the document, "HEDCO: A program for Converting Observed Water-Levels and Pressure and Standard Hydraulic Head," from Terra Therma. Mr. Weber is evaluating the need for additional effort in this area.

Subtask 2.4

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No comments.

Subtask 2.5

No comments.

Task 3 -SRP0

Subtask 3.1

I have noted your comments on the NRC Issues will be included with your comment on the DOE Issue Hierarchy due in February.

Subtask 3.2

No comments.

Subtask 3.3

Mr. Ross has continued developing a reference data base and has been in contact with Stephens and Associates in this regard. Mr. Ross is currently preparing a letter to you tasking some document reviews. Mr. Brown collected the files containing work done by Golder under a previous contract. I hope they will be of some use to you.

Subtask 3.4

No comments.

Subtask 3.5

No comments.

Task 4

Not initiated.

Task 5

We have received your letter report containing reviews of the two draft generic technical positions. Mr. Codell has been provided with copies and will consider your comments when finalizing the draft positions. We appreciate your quick response to our review request.

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Mr. Brown's attendance and input to the NRC sponsored workshop on "Validation of Mathematical Models for Waste Repository Performance Assessment" is appreciated.

The action taken by this letter is considered to be within the scope of the current contract NRC-02-85-009. 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,



Jeffrey A. Pohle, Project Officer
Hydrology Section
Geotechnical Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

cc: Barry Bromberg, ACB
R. Codell, WMGT
N. Coleman, WMGT
F. Ross, WMGT
M. Weber, WMGT

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