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Mr. Richard B. Goranson
Project Manager
BWIP Project Office
Richland Operations Office
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Dear Mr. Goranson:

As we discussed at the January 12-13 meeting at BWIP and in my letter of May 5th, a series of workshops held at Richland, each dealing with one topic (hydrogeology, design, etc.), would be the logical way of satisfying the NRC's need for data review and our mutual interests in early consultation on potential site issues and plans to resolve them. Enclosed is an amplification of prior hydrogeologic data requests made in connection with our reviews last September and January. We consider that the bulk of this data can be reviewed in connection with the proposed hydrogeology workshop. The attached is provided to help in the detailed planning of a hydrogeology workshop and other supplementary exchanges.

There is a large volume of data that has been collected at the site since investigations started in 1976. As we have previously indicated, we are flexible about the specific arrangements for the review of this data and information identified in the attachments. As was discussed at the DOE/NRC meeting on the Site Characterization Report in Silver Spring on September 3, 1981 all data and information will be available for NRC staff review at the site. In addition to this, NRC staff will need copies of selected data for its continuing review. These cases can be identified as we review data in the workshops.

It is imperative that the NRC staff be fully informed on the results of studies to date at the BWIP project, in order to complete rapidly the review of the site characterization report and avoid potential delay and disruption in your program.

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Specifically, we can conduct an informed and rapid review, only by having a solid baseline of site information before receipt of the SCR. Unfortunately, with the delays in getting these workshops started, there is not a lot of time to do this.

We can resolve data review and information exchange needs in specific areas besides hydrogeology as we proceed with detailed plans for other workshops.

Sincerely,

ORIGINAL SIGNED BY

Robert J. Wright
Senior Technical Advisor
High-Level Waste Technical
Development Branch
Division of Waste Management

Attachments:
As stated

cc: Ralph Stein, DOE-HQ

OFC	WMHT	WMHT					
NAME	RWright:bb	HMiller					
DATE	82/06/08	06/ /82					

Enclosure 1

6. Summary of Data From Completions

Pre-SCR Information Needs at BWIP

Hydrogeology

This is a general statement of information that needs to be reviewed. Attachment 2 provides a more detailed listing of information needed.

1. Data base that supports the SCR.

   a. Overall summary of kinds of information collected by RHO
   b. Test history of deep wells drilled, including those through the Umtanum
      - Test procedures
      - Field data, including geophysical logs
      - Results from analysis of field data
      - Interpretation of analytical results
      - Water temperatures: data and interpretation
      - Water chemistries: data and interpretation
      - Characterization of fractures in Umtanum

2. Cross - well testing (DC4-5, DC7-8) - Same as 1B

3. Hole-to-hole assemblies of hydrologic data in 1. and 2.

4. Groundwater model of Pasco Basin

   - Types of models used
   - Model calibration
   - Model validation
   - Results
   - Mass balance among units and locations

5. Data base that is not used in, or does not support, the SCR

   a. Overall summary of kinds of information available to RHO from other investigations at the Hanford site
   b. Basis for exclusion of information from RHO groundwater model
   c. Identification of difference between RHO, PNL and USGS groundwater models

Detailed Information Needs At BWIP

Hydrogeology

A DATA ON WELLS

For each hole tested we need to have available for pre-SCR review the following, if we are review it in a timely manner:

1. Outline of Testing Approach

2. Drilling Record

   - Fluid
   - Rate of Advance
   - Mud Loss and/or Water make
   - Casing Records
   - Hole Diameter
   - Completion details
   - Chronological History

3. Coring Data

   - Intervals Cored
   - Recovery
   - Lithology & mineralogy
   - Fracture and Fault Data
   - Photos
   - Laboratory Test Results
   - Geochemistry

4. Geophysical Data

   - Logging Methodology & Procedures
   - Interpreted copies of all logs
   - Hydrostratigraphic unit interpretations

5. Hydrology Testing

   - Description of the test performed (This data to include simple and multiple bore tests)
   - Each test, interval tested
   - Test Method(s)
   - Test(s) Performed
   - Raw Data
   - Data Analysis (including analyses fo range of uncertainties in data)
   - Parametric results

6. Specific Data From Completions

- Permeability (horizontal)
- Head/pressure
- Temperature
- Specific Gravity
- Water Quality
- Isotope Data

The above data should be available for all boreholes that penetrate basalt.

7. Other Testing

- Stress Testing (Hydrofracturing)
- Cross-Hole Geophysics
- Tracer Testing

B. DATA INTEGRATION

1. Hydrostratigraphy Basis

- Geology
- Geophysics
- Permeability
- Heads
- Hydrogeochemistry
- Temperature
- Zonation (Interflow, columnar, flow top, interbed)
- Other

We would like to see data on the above on a unit by unit basis to support the test breakdown used in the SCR.

2. Modeling

- Types of models used
- Model calibration
- Model validation
- Results
- Mass balance among units and locations

C. UNUSED AVAILABLE DATA

A considerable body of information exists, particularly pre 1979, and it is understood that RHO does not plan to use these data in support of the SCR/LA. A description of the rationale for not using this data is needed, particularly where it conflicts with more recent data. Such data includes:

1. Head Interpretations, Including DC1 permanent installation results versus RHO temporary completion data.

2. "Anomalous" permeability data in DC-6, DC 13, & DC 15 along the river, which have been held to be atypical of the site.

3. AEE LBL, ARCO & USGS derived data

4. Early tracer testing results

5. Early multiple hole testing results.

The descriptions in the above list are very brief summaries and can be expanded on in the workshops.