STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
*1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581*

September 14, 1998

Mr. Bryan Foley
U.S. Department of Energy
P.O. Box 550, MSIN: H4-83
Richland, WA 99352



Dear Mr. Foley:

Re: Comments on The 200-CW-1 Gable Mountain / B-Pond and Ditches Cooling Water Waste Group Data Quality Objective Workbook, 8/20/98 Draft

The Washington State Department of Ecology (Ecology) has reviewed the above referenced document and has enclosed comments. 5044

Ecology looks forward to discussing these comments with you. If you have questions or concerns regarding this letter or the enclosed comments, please contact me at (509) 736-3012.

Sincerely;

Ted A. Wooley, 200 CW-1 Project Manger
Nuclear Waste Program

TAW:sdb
Enclosure

cc: Tom Post, EPA
Greg Mitchem, BHI
Curt Wittreich, CHI
Mary Lou Blazek, OOE
Admistrative Record: 200 CW-1

1) **Pages 4 & 5:** The tops of these pages have items #2 and #3, respectively; however, there is no #1.

*Requirement*: Please provide missing information and revise document as necessary.

2) **Page 23:** Shallow zone is defined as both 0-15 ft below grade or 6-15 ft.

*Requirement*: Clarify what the shallow zone actually is. Revise document to clearly define the shallow zone.

3) **Page 24, Table 1-10, General Exposure Scenarios, Scenario #1:** The number of hours/day, days/year, and total years should be broken down even further. The two categories should be time spent inside a building verses outside a building. In general, exposure to an individual will vary based on this difference.

*Requirement*: Refine exposure scenario number #1 based on the above discussions.

4) **Page 34, Table 3-4, Vadose zone radiological sample data, "superscript a":** Page 38 of the workbook shows "a" to mean that, "data is sufficient to support remedial action alternative decision-making evaluations." What qualifies data to be used in such a way?

*Requirement*: Provide information on this specific data type.

5) **Page 45, Table 4-1:** The utility of this table is unclear.

*Requirement*: Explain the table and how the information is used.

6) **Page 49, Tables 4-5 and 4-5a:** The U.S. Department of Energy (USDOE) has no apparent basis for rating "Qualitative Consequences of Inadequate Sampling Design" and "Required Sampling Design Rigor." No Data Quality Objectives (DQO) discussions have taken place between Ecology (regarding 200 CW-1) and USDOE/contractors that would lead up to creating these types of tables. Appropriate characterization of the sites is the goal. A possible substitute could be a table similar to what is found in DOE/RL-98-43 Rev. 0, entitled "Consequences of Incorrect Decisions."

*Requirement*: Revise the tables, replace with above suggested format.

7) **Page 54, Figure 1:** The logic diagram provided here is inappropriate. Ecology has, from the start, made its position clear that sampling for the purpose of characterization of 200 CW-1 would be statistically based. Using best professional judgement is also necessary. Ecology's expectation for soil sampling in the 200-CW-1 waste group is to combine best professional judgement with statistics. What is very unclear at this point is how the overall sampling logic flows. Ecology's understanding is that the first object is to verify through available information that the representative sites are truly representative (which really isn't part of the sampling plan). Once that has been done, characterization of the

representative sites is the next step. This data will then be used to guide remediation for those sites as well as analogous sites. If the data collected is to help delineate plumes **for a removal action** then less rigor would be required for determining how many (and where) samples are to be collected. The reason is that verification sampling (which typically is based on statistics) would occur at some point to establish if performance standards/remedial action objectives have been achieved. If sample results are to be used to support leaving waste in place, the sampling must be statistically based.

*Requirement*: Further discussion between Ecology and USDOE on sampling strategy is required before can occur.

8) **Page 55, Table 7-1:** *The data collection design logic, as noted in previous comments, is* flawed. If "consequences of erroneous decisions are not severe" then why bother with even using "best professional judgement?" Leaving all of the sampling rigor to the remedial design phase is not good planning. The whole purpose of pre-rod/pre-closure characterization is to build the appropriate database for writing a Record of Decision (ROD) or Closure Plan. Remedial design is to support the decisions already made and to prepare for remedial action. What is being suggested for 200 CW-1 is that we will still be in an "exploratory mode" during remedial design. This is neither cost effective, nor protective of human health and the environment.

*Requirement*: Further discussion between Ecology and USDOE on sampling strategy is required before approval.

9) **Page 58 Table 7-4a:** In the column entitled "Basis for Sampling Design," no discussion of Kd values ever occurred during the DQO discussions.

*Requirement*: In order for Ecology to agree with the statements provided in this section, a detailed discussion of Kds will be required.