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*Nez Perce*

ENVIRONMENTAL RESTORATION &amp; WASTE MANAGEMENT

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September 16, 1999

Mr. Bryan L. Foley  
U.S. Department of Energy,  
Richland Operations Office, MS HO-12  
P.O. Box 550  
Richland, Washington 99352

RECEIVED

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DOE-RL/DIS

Re: **200-CW-1 Operable Unit RI/FS Work Plan and 216-B-3 RCRA TSD Unit Sampling Plan, DOE/RL-99-07, Draft B**

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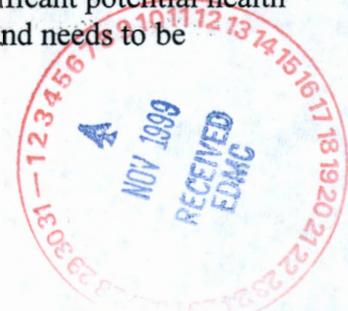
Dear Mr. Foley:

The Nez Perce Tribe's Environmental Restoration and Waste Management Program (ERWM) has reviewed a copy of **200-CW-1 Operable Unit RI/FS Work Plan and 216-B-3 RCRA TSD Unit Sampling Plan, DOE/RL-99-07, Draft B**. Attached, for your consideration, are ERWM's specific comments and suggestions on this document.

Since 1855, reserved treaty rights of the Nez Perce Tribe in the Mid-Columbia have been recognized and affirmed through a series of Federal and State actions. These actions protect Nez Perce rights to utilize their usual and accustomed resources and resource areas in the Hanford Reach of the Columbia River and elsewhere. Accordingly, ERWM has support from the U.S. Department of Energy (DOE) to participate in and monitor relevant DOE activities.

The Nez Perce Tribe considers the protection of the Columbia River and its ecosystem to be of the utmost priority. ERWM considers remediation of 200 Area waste sites a positive step in the protection of the Columbia River and fully supports the objectives of this plan. However, we have some concerns about this plan that may affect the health and safety of members of our Tribe, workers, public, biota, and cultural resources. Our general comments are as follows:

- 1) Gable Mountain Pond was identified in the *Composite Analysis for Low-Level Waste Disposal in the 200 Area Plateau of the Hanford Site* (Kincaid and others, 1998, PNNL-11800, Richland, WA) as an area with a significant potential health hazard due to strontium-90 using an agricultural scenario and needs to be thoroughly characterized.



- 2) The highest concentrations of contamination may not be at the inlets to the ponds. On page 3-4 of this document, it is stated about Gable Pond that: "*The highest concentration of cesium-137 and other radioisotopes was generally detected in sediments on the northwest end and deeper section of the pond along its long axis.*" The potential for lateral spreading or migration of contamination needs to be addressed. Basalt subcrops above the water table under the southeastern two-thirds of Gable Pond (Figure 3-5). It is reasonable to assume that water has migrated down structural dip (to the northwest) in the sediments above the basalt.
  
- 3) Since the current distribution of gamma ray emitters under the 200 Areas is not known, we are recommending the geophysical logging of the laterals under the tanks and the boreholes in the 200 Areas' cribs, ponds, and trenches. ERWM sent a letter, dated July 21, 1999, with this recommendation to Mr. Rich Holten, U.S. Department of Energy, Richland Operations Office.

We look forward to working with DOE-RL in a cooperative manner to move forward in the protection of the Columbia River and its ecosystem. Accordingly, we are willing to discuss these and other issues with DOE-RL and DOE-RL's contractors. If you wish to discuss Nez Perce ERWM's comments further please contact Stan Sobczyk at (208) 843-7375, (208) 843-7378 (fax) or [stans@nezperce.org](mailto:stans@nezperce.org) (email).

Sincerely,



Patrick Sobotta  
Interim ERWM Director

cc: Kevin Clarke, DOE-RL, Indian Programs Manager  
Mike Wilson, Ecology, Nuclear Waste Program Manager  
Douglas Sherwood, EPA, Hanford Project Manager  
Russell Jim, YIN, ER/WM Manager  
J.R. Wilkinson, CTUIR, SSRP Manager

## Attachment

*THE NEZ PERCE TRIBE*  
**ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT PROGRAM**

**SPECIFIC COMMENTS**  
**On The**  
**200-CW-1 Operable Unit RI/FS Work Plan**  
**and 216-B-3 RCRA TSD Unit Sampling Plan**  
**DOE/RL-99-07, Draft B**

Since 1855 Nez Perce Tribe treaty rights in the Mid-Columbia have been recognized and affirmed through a series of federal and state actions. These actions protect Nez Perce interests to utilize their usual and accustomed resources and resources areas in the Hanford Reach of the Columbia River and elsewhere. Accordingly, the Nez Perce Tribe Department of Environmental Restoration and Waste Management (ERWM) has U.S. Department of Energy (DOE) support to participate in and monitor certain DOE activities. The document review is provided in a format that lists the page number, section number, and comment. Following are the specific comments on the **200-CW-1 Operable Unit RI/FS Work Plan and 216-B-3 RCRA TSD Unit Sampling Plan, DOE/RL-99-07, Draft B.**

### **SPECIFIC COMMENTS:**

#### **Pages 2-10 through 2-25, Section 2.3**

One of the objectives of the field data collection activities should be to verify the assumptions in the conceptual model.

A structure map on the Top of the Ringold Formation or the top of the Lower Mud Unit in the Ringold Formation should be included in this document. This map could be used to predict lateral migration pathways that the contaminants from B Pond might follow.

At Gable Mountain Pond, the aquifer is very thin, and groundwater and contaminants should flow down dip as controlled by the top of the basalt. A structure map on the top of the basalt should be included in this document. This map could be used to predict lateral migration pathways that the contaminants from Gable Mountain Pond might follow. Based on a Top of Basalt structure map (*Geologic Studies of the Columbia Plateau, Rockwell Hanford Operations, RHO-BWI-ST4*, Plate III-4a), the direction of spreading should be to the northwest towards West Lake, and field data collection activities should be biased to the northwest.

**Page 2-21, Figures 2-10 & 2-11**

The geologic model shown in these figures doesn't agree with the representative stratigraphy beneath B Pond shown in figure 2-9. The Lower Gravel Sequence of the Ringold Formation present in Figure 2-9 is not shown on Figures 2-10 & 2-11.

**Page 2-24, Figure 2-13**

The geologic model shown in this figure doesn't agree with the stratigraphy beneath B Pond shown in figure 2-6. The Lower Gravel Sequence of the Ringold Formation present in Figure 2-6 is not shown on Figure 2-13.

**Page 4-1, Section 4.1**

Tribal representatives were excluded from the DQO process. The United States' trust obligations to the Tribes extends to all federal agencies, and all federal actions and the implementation of federal statutory schemes affecting Indian people, Indian land or Indian resources. The federal government and its implementing agencies are obligated to use their expertise and authority — in meaningful consultation with the tribes — to safeguard natural resources that are of crucial importance to tribal self-government and to prosperity. Without early Tribal participation in the decision-making process, federal agencies run the risk of making inappropriate decisions that adversely affect resources.

**Page 4-2, Section 4.1.4**

A bias in the sampling program is permissible as long as the underlying assumptions are correct and can be validated by the sampling program.

**Page 4-3, Section 4.2.1**

The highest concentrations of contamination may not be at the inlets to the ponds. On page 3-4 of this document, it is stated about Gable Pond that: "*The highest concentration of cesium-137 and other radioisotopes was generally detected in sediments on the northwest end and deeper section of the pond along its long axis.*" The potential for lateral spreading or migration of contamination needs to be addressed. Basalt subcrops above the water table under the southeastern two-thirds of Gable Pond (Figure 3-5). It is reasonable to assume that water has migrated down structural dip (to the northwest) in the sediments above the basalt.

It is not clear why the drilling method must not use any system that circulates air.

**Page 4-4, Section 4.2.2**

Using the hollow stem augers to collect samples appears to be more advantageous than collecting samples with a backhoe bucket for the following reasons:

1. With proper calibration geophysical tools can be used to log the test holes.
2. The volume of the sample collected using a hollow stem auger will be less so that there is less handling and disposal of contaminated material by site workers.
3. Geophysical logs provide a continuous record of borehole conditions and can be used to verify that samples were collected at the optimum depths (for gamma-ray emitters) and in sufficient frequency, and to guide the collection of physical samples in

subsequent boreholes.

**Pages 4-5 & 6, Section 4.3**

Since the current distribution of gamma ray emitters under the 200 Areas is not known, we are recommending the geophysical logging of the laterals under the tanks and the boreholes in the 200 Areas' cribs, ponds, and trenches. ERWM sent a letter, dated July 21, 1999, with this recommendation to Mr. Rich Holten, U.S. Department of Energy, Richland Operations Office.

**Page 5-4, Section 5.2.2.1**

We are concerned that excavation of test pits within these facilities may unnecessarily subject workers to radiation exposure because of the untoward excavation of soil that has been contaminated by high level waste streams that were intended for storage in the tank farms. The amount of soil brought to the surface with a backhoe will be substantially greater than that brought up by a hollow stem auger. Disposal of the relatively large volume of soil dug up by a backhoe in a safe manner will also drive up the costs of the sampling program.

**Page A1-4, Section A1.5.1**

The remedial alternative of soil washing should have been considered in the development of the DQO process.

**Page A1-4, Section A1.5.1**

Please refer to the comments for Page 4-2, Section 4.1.4 and Page 4-3, Section 4.2.1.

**Page A1-7, Table A1-1**

Iodine-129 should also be listed as a contaminant of concern.

Since the actual distribution and concentration of Np-237, Ni-63, and Tc-99 are unknown, the decision to limit the analysis for these radionuclides depending upon depth is premature.

**Page A3-2, Section A3.3.1**

Geophysical logging results from nearby boreholes should be used to guide the determination of the appropriate depths to sample. Since the lithology of the subsurface may affect the distribution of contaminants and the distribution of gamma-ray emitting contaminate can be determined by geophysical logging, these results should dictate the sampled intervals and not arbitrarily set depths.