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Nez Perce

ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT
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November 1, 1996

Mr. Mike Thompson
US Department of Energy
Richland Operations Office
P.O. Box 550, MS H012
Richland, WA 99352

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Dear Mr. Thompson,

The Nez Perce Tribe Department of Environmental Restoration and Waste Management (ERWM) has reviewed: **Decision Process for Hanford Sitewide Groundwater Remediation, June 1996, BHI-00455, Rev. 0, Bechtel Hanford, Inc., Richland, Washington 99352** (the document). ERWM has provided general and detailed comments on portions of this document, included with this transmittal.

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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 in the Hanford Reach of the Columbia River and elsewhere. Accordingly, the Nez Perce Tribe ERWM has U.S. Department of Energy (DOE) support to participate in and monitor relevant DOE activities.

The Nez Perce Tribe ERWM favors protection of Hanford and the Columbia River through groundwater contamination reduction in the Hanford aquifers. We agree with the processes delineated in the document; however, we have some questions, comments and requests which, if accepted, will improve the nature of groundwater remediation on the Hanford Site. Listed below are our general statements regarding the document:

- * The Nez Perce Tribe ERWM does not favor the use of alternate concentration limits (ACLs) and technical impracticability waivers (TIs) unless absolutely necessary. We do not support reduction in environmental standards necessary to

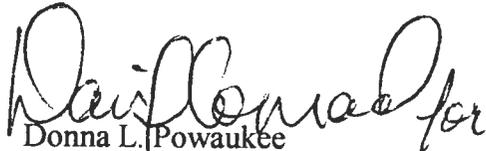
protect the River. We request input into the process where such waivers are considered, since cleanup of the site affects our treaty rights to the area.

- * ERWM believes the cost of Hanford site pump and treat technology is excessive, partly due to excess regulation. ERWM requests the opportunity to take part in process and cost review of Hanford remediation technology implementation. This may allow use of our influence for cost reduction.
- * ERWM considers groundwater cleanup of higher priority than containment. The general consideration of containment, emphasized throughout the document, downplays the fact that in most cases cleanup, (with pump and treat) is occurring. Responsible cleanup is important, especially considering chemical contaminants. It took many years to contaminate Hanford groundwater to the current degree, we cannot expect a quick fix to problems that took years to create. Vadose zone contamination will be the time limiting factor for all groundwater cleanup. As long as contaminants from the vadose zone are entering groundwater, cleanup will not be realized, no matter what groundwater remediation technique is employed. Considering the preceding thoughts, ERWM feels pump and treat cleanup is the most effective, environmentally safe, and cost effective groundwater cleanup technology for the site.
- * The document conveys the idea of completing Focused Feasibility Studies (FFSs) and Treatability Studies (TSs) only when the technology driving that cleanup option is not straightforward. We support that idea and think even more money can be cut from the decision making and cleanup processes. ERWM would be happy to provide personnel to review and facilitate cost effective budget reduction for Hanford groundwater remediation process.
- * In the document an idea is conveyed, that, in some cases, Model Toxic Control Act (MTCA) and Safe Drinking Water Act (SDWA) standards for cleanup levels are not stringent enough. We concur with the idea and provide an example in hexavalent chromium, where allowable regulatory standards are higher than the levels shown to be harmful to salmon embryos in Columbia River substrata.
- * ERWM feels the document should accept input from the currently established, "Columbia River Comprehensive Impact Assessment", (CRCIA) group now operating at Hanford. We request that you contact this group for sitewide remediation input as it effects the Columbia River.

The Nez Perce Tribe ERWM appreciates the opportunity to provide comment on **Decision Process for Hanford Sitewide Groundwater Remediation, June 1996, BHI-00455, Rev. 0, Bechtel Hanford, Inc., Richland, Washington 99352.** In general we feel the document was informative and well written. Specific comments are also included with this letter.

If you wish to discuss Nez Perce ERWM's comments further please contact Mr. Paul Danielson of ERWM at (208) 843-7375.

Sincerely,



Donna L. Powauksee
ERWM Manager

cc: John Wagoner, DOE-RL, Site Manager
Kevin Clarke, DOE-RL, Indian Programs Manager
Steve Alexander, Ecology, Perimeter Areas Section Manager
Douglas Sherwood, EPA, Hanford Project Manager
Russell Jim, YIN, ER/WM Manager
J.R. Wilkinson, CTIUR, SSRP Manager
Stan Leja, Ecology

RESPONSE TO

**DECISION PROCESS FOR HANFORD SITEWIDE GROUNDWATER
REMEDATION, JUNE 1996, BHI-00455, REV. 0, BECHTEL HANFORD, INC.,
RICHLAND, WASHINGTON 99352**

Comments Prepared By:

Nez Perce Tribe
Department of Environmental Restoration and Waste Management Staff

November 1, 1996

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

COMMENTS ON:

**DECISION PROCESS FOR HANFORD SITEWIDE GROUNDWATER
REMEDICATION, JUNE 1996, BHI-00455, REV. 0, BECHTEL HANFORD, INC.,
RICHLAND, WASHINGTON 99352**

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 Environmental Restoration and Waste Management (ERWM) department has DOE support to participate in and monitor certain DOE activities. The Nez Perce Tribe ERWM responds to documents calling for public comment from DOE. The program critically reviews and comments on documents in an objective and straight forward manner. Each document review is provided in a format that lists the Page number, Column number and Paragraph number: Comment. Following are specific comments on **Decision Process for Hanford Sitewide Groundwater Remediation, June 1996, BHI-00455, Rev. 0, Bechtel Hanford, Inc., Richland, Washington 99352.**

SPECIFIC COMMENTS:

Page 3, Final Paragraph

The text states that although cleanup to MCLs remains a principal goal, establishment of ACLs and or TI waivers remain a high probability for many Hanford groundwater plumes. Establishment of ACL and TI waivers will not be generally favored by ERWM. We especially emphasize MCLs for hexavalent chromium should not be relaxed. As previously mentioned, established chromium standards under the Safe Drinking Water Act (SDWA) are even now not sufficient to protect young Salmon embryo in the Columbia River substrate. If chromium ACLs or TIs are initiated, Salmon will be even more at risk.

Page 5, Bullet 2

It states that a focused feasibility study (FFS) will be performed to select a cleanup remedy, but only if the remedy is not straightforward. ERWM is in favor of reducing the amount of work necessary to initiate a straightforward cleanup remedy. In off-site cleanups, overhead costs for remediation treatability studies is considerably less than at Hanford.

Page 5, Bullet 3

The text states hydraulic containment is the primary objective for most Hanford plume applications, although mass reduction and plume cleanup may be objectives in some situations. Except in the case of tritium, where no cleanup method exists, ERWM feels mass reduction and plume cleanup should be highest priority, especially for chemical contamination. Containment infers no cleanup at all. In the current IRMs at Hanford, some form of ion exchange or other mechanism exists to remove contaminants, facilitating cleanup. ERWM suggests changing the focus of Hanford groundwater remediation process to highlight cleanup instead of containment.

Page 6, Paragraph 1

ERWM approves of EPA and the Washington State Department of Ecology categories considering most Hanford groundwater as a potential future drinking water source.

Page 9, Paragraph 1

ERWM favors the Hanford Past Practices Strategy (HPPS) for triggering IRM process, not just on the basis of regulatory standards, but also on the finding of unacceptable risk to human health or the environment.

Page 10, Paragraph 2

The text discusses how costs may be reduced if an FFS is bypassed because a proven remedial technology is proposed. Cost reduction is one of the reasons ERWM favors the use of proven technologies for groundwater remediation at Hanford. Environmental safety, in the case of pump and treat, is an even more important reason.

Hanford is spending large amounts of money for groundwater remedial technology development that in some cases appears to be unsafe. In-situ redox, for example, initiates a strongly reducing environment in hexavalent chromium contaminated groundwater to trap and permanently reduce it to trivalent chromium. Our problem with this technology is the myriad of potential secondary aquifer effects that have potential to be harmful when that groundwater reaches the River. For reasons like this, ERWM requests more peer review power in assessing these technologies and their environmental soundness. We tentatively support initiation of DOE's, **Office of Science and Technology (OST) Environmental Technology Decision Process**, which would appear to allow Tribal governments the necessary decision making input on remedial technology implementations.

Page 11, Paragraph 2

The text states that bypassing a treatability study (TS) may be favorable if there is little risk the technology will fail. In the case of well proven technologies, we agree, a TS may be unnecessary, favorably reducing costs. On proposed new groundwater technologies, we favor TSs, to prove the technology will work and is environmentally safe.

Page 14, Paragraph 4

It is stated that because of large plume size or lack of current technology to clean a plume, institutional controls and natural attenuation could be the only option for control. ERWM does not favor overusing these scenarios, especially for chemical contaminants. Tritium is the only contaminant which cannot be remediated. Plume size should not constitute a reason for not considering cleanup. In order to remediate a large plume, a large remediation system is necessary; this should not stop cleanup.

Page 14, Last Paragraph

The document states that: if contaminant concentrations in the River exceed a certain level, groundwater impacting the River must be contained. ERWM does not feel this statement is specific enough. It should read: If contaminant concentrations in groundwater entering the River through the gravel substrate or seeps, exceeds allowable limits, it must be cleaned, or contained, (In the case of radionuclides) until the contaminants attenuate to levels that no longer present a threat to biota.

Page 17, Paragraph 2

The text explains that new technologies may become available to address groundwater contamination, where no suitable technology existed before, and 5 year reviews should be used to evaluate new technology for remediation usage. ERWM believes 5 year reviews on technologies are a good idea. We also believe that in many cases too much emphasis is being put on Hanford technology advancement. We believe baseline technologies are going to be the major contributors to cleanup on the site.

ERWM has some positive ideas for funding technological advancement. Most money for new technologies should come from outside companies advancing technology, rather than from technology development inside the Hanford realm. In exchange for outside interests funding their own technological development, they should be given an open door into Hanford. The past practice of emphasizing technology development from contractors inside Hanford's protective political barrier should not be Hanford's future.