Confederated Tribes and Bands
of the Yakama Nation

Established by the
Treaty of June 9, 1855

March 11, 2002

Mr. Keith Klein
Hanford Site Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550 MSIN: A7-50
Richland, WA 99352

Mr. Dennis Faulk
Acting Hanford Project Manager
U.S. Environmental Protection Agency
712 Swift Blvd., Suite 5
Richland, WA 99352

Mr. Michael Wilson
Nuclear Waste Program Manager
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98503

RE: Comments on the draft TPA milestone change packages for the Hanford 100 and 300 Area National Priority List Sites

56288

Dear Messrs. Klein, Faulk and Wilson:

The Confederated Tribes and Bands of the Yakama Nation is a federally recognized sovereign pursuant to the Treaty of June 9, 1855 made with the United States of America (12 Stat. 951). The Yakama Nation (YN) has concerns over the proposed plans to change the current Tri-Party Agreement (TPA) milestones for the Hanford Site 100 and 300 Area National Priority List (NPL) Sites. As the proposed changes are currently written, the Tri-Parties will be unable to demonstrate protectiveness of human health and the environment, particularly for the Yakama people and the resources reserved under the Treaty. The ability to demonstrate protectiveness requires the proposed milestones to define and implement a scientifically sound, defensible comprehensive risk assessment as early as possible in the interim Remedial Investigation/Feasibility Study (RI/FS) process.

The interim approach the Tri-Parties are currently taking with the 100 and 300 Area relies on sparse, incomplete and/or no characterization data. Consequently, there is a serious lack of information necessary to adequately characterize the sites for the purpose of developing and evaluating effective remedial actions. The Tri-Parties have shifted the characterization under the RI/FS process, defined in 40 CFR § 300.430, to the end of the CERCLA cleanup process rather than the beginning, where it should occur to establish baseline conditions. The sequencing of characterization identified in the proposed

milestone language aligns more with the natural resource damage assessment process rather than the RI/FS process. The Tri-Parties have an opportunity to correct the situation and align with the implementing regulations (40 CFR § 300.430), EPA's *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (EPA 540-R-97-006, OSWER Directive #9285.7-25, June 1997), and the Washington Department of Ecology's recently amended Model Toxics Control Act (MTCA).

Unfortunately, almost everything that has been done to date regarding characterization relies solely on modeling - particularly for ground water and biota. Data hasn't been gathered that can calibrate and validate the models. YN believes the current approach is inadequate in demonstrating protectiveness of resources reserved under the Treaty.

Communication

Little, if any, dialogue has occurred between the Tri-Parties and YN leading up to this change packet. When a meaningful government-to-government relationship is properly executed, a mutual decision can be reached. YN attempted to engage in meaningful dialogue with the Tri-Parties via a letter, dated October 9, 2001, from the Hanford Natural Resource Trustee Council (NRTC) to the Tri-Parties on the 100 Area milestone negotiations. The trustees have yet to receive a response other than the change package.

At a January 31, 2002 NRTC meeting, USDOE staff stated that "finalization of the 100/300 Area change package would determine the response to the NRTC." To say the least, this was very discouraging news. It indicates that neither DOE nor EPA have any interest in fulfilling their fiduciary trust responsibilities with the Tribe or in coordinating with the Hanford natural resource trustees.

Also at that meeting, the YN was surprised to receive a package that included the 300 Area milestone language. An earlier TPA communiqué stated that the Tri-Parties would negotiate the 300 milestone language, which was not to be released for public comment until June 30, 2002. Because of the early release of the 300 Area milestone language, the tribe was denied an opportunity to influence the proposed language before a draft was released. This is not how consultation works. Coordination and communication have clearly broken down between YN and the Tri-Parties on Hanford issues.

Justification for Change of Characterization

Over the years, YN has observed efforts by the Tri-Parties to circumvent or postpone gathering necessary initial data until interim actions are completed. These efforts are well documented in the 100 and 300 Area RI/FS documents, interim RODs, and first Five-year Review. Improper characterization increases the potential for failure of the initial cleanup, and results in additional remedial actions that increase the cost of cleanup and risk to workers and the public. Already inadequate characterization at the waste sites

has led to unexpected discoveries. Most were discovered by non-related RI/FS investigations. Examples include:

- Discovery of DDT at remediated sites in the 100 and 1100 Area that were de-listed from the 100 and 1100 NPL Sites (source: USFWS Level III preacquisition survey).

- Discovery, by a WDFW Commissioner, of 2,4 D contamination on the North Slope that was entirely missed by the first remedial response action. A second response was required because of the levels and extent.

- Discovery of drums containing uranium oxide in the 300 Area, requiring specialized cleanup activities to be implemented. No records were uncovered nor any characterization data gathered during the RI process that would indicate their presence in the landfill.

- Discovery of an expanded plume of chromium in the groundwater in the 100 Area after completion of the initial installation of a pump and treat system operation. Expansion of the monitoring effort led to discovery of a large chromium plume from an unknown source.

- Discovery of a tritium release, in the highest recorded levels on the site, to the ground water. The source of the tritium is from a radioactive waste site near Energy Northwest that has not been fully characterized or monitored. The release went undetected by the site-wide surveillance and monitoring program and was not captured in the Remedial investigation.

These discoveries indicate that the Tri-Parties do not fully understand the remedial investigation process. A comprehensive assessment could determine what contaminants are present and identify potential threats to human health and cultural resources that are important to the Yakama people. This is a major concern to YN, especially in light of a recent report, developed by the Risk Assessment Corporation for the federal government, that stated Indians may have been exposed to more potentially cancer-causing radiation than other people living near Hanford. This information was presented during a January meeting in Kennewick of the Inter-Tribal Council for Hanford Health Projects.

Baseline Assessments

The CERCLA RI/FS process identifies gathering characterization data early, prior to any cleanup action. The Tri-Parties have severely deviated from this approach during the interim remedial actions. There is no attempt to correct this error based on the proposed change package language.

First and foremost, a scientifically sound assessment needs to be implemented early in the interim cleanup process to aid in determining the types and extent of contamination, pathways of exposure, and establishment of cleanup levels protective of biological receptors. This is one of the remedial cleanup criteria of 40 CFR § 300.430. The M-16-

00F and M-16-03A milestone series are both deficient in language requiring the collection of comprehensive characterization data (pathway confirmation via exposure tests, toxicity tests, etc.) to assess protection of biological receptors.

One thing is known: hazardous and radioactive substances continue to reach the river and biological receptors. What effects these contaminant levels may have on biological receptors remain unknown, since little actual characterization has occurred. The YN waits for adequate comprehensive characterization to demonstrate protectiveness of these resources reserved in the Treaty of 1855.

Proposed 100 B/C Pilot Project

As part of the proposed milestone change package, the Tri-Parties are proposing a pilot risk assessment that focuses on post-interim cleanup actions. It is unfortunate that the Tri-Parties continue to miss the value of collecting characterization data in the proper sequence as required in 40 CFR § 300.430. The proposed pilot project demonstrates the Tri-Parties' unwillingness to gather data to ensure a successful, one-time cleanup. It also demonstrates the lack of knowledge among the Tri-Parties to carry out a comprehensive assessment.

It is time for the Tri-Parties to acknowledge that successful site-specific characterization is being performed at other superfund sites, and that similar assessments are needed as soon as possible for the 100 and 300 NPL sites. Remedial managers at these other superfund sites are implementing EPA's guidance on performing ecological risk assessments (ERAGS, EPA 540-R-97-006, OSWER Directive #9285.7-25, June 1997) and are consistent with EPA's OSWER Directive 9285.7-28 P. The proposed change package needs to make commitments for site-specific ecological risk assessments in the 100 and 300 NPL sites, and if necessary to pursue the contaminant plumes and effects beyond the official NPL site boundaries.

The proposed pilot language mentions a consensus approach that includes the site contractors, USDOE and the regulators. It fails to include the involvement of the Tribes and federal natural resource agencies, which have trust responsibilities for natural resources that are being impacted. The Tri-Parties have a legal responsibility to the trustees that are not members of the TPA.

From what we have already seen, this pilot project will be another modeling exercise with little, if any, empirical data being collected. A white paper recently issued by Bechtel Hanford for the 100 B/C Pilot Project has eliminated almost all concerns for the terrestrial sites without collecting any biological samples. This approach will not identify residual contamination that poses a risk to biological receptors or the Yakama people.

Each of the reactor sites will require site-specific risk assessments, as will the 300 Area. Each site is independent, with unique contaminant hazards, concentrations, eco-risk parameters and exposure requirements.

Independent Oversight

The Tri-Parties have not demonstrated their ability to perform an unbiased, scientifically sound and defensible assessment. Due to documented inadequate environmental assessment processes that are taking place at Hanford, which are not sufficient to ensure protection of people and the environment, the YN sees the need for independent oversight. This oversight is needed to conduct pre- and post-interim remedial and final risk assessments.

Negotiations

As part of these negotiations, and as provided in 40 CFR § 300.615(d)(2) and CERCLA § 122(j)(1), the Yakama Nation believes that it is appropriate for the U.S. Department of Interior/U.S. Fish and Wildlife Service, which is responsible for species protected under the Endangered Species Act (ESA) and Migratory Bird Treaty Act (MBTA) at the Hanford Site, to participate in the negotiations of M-16-00F and M-16-03A.

The USFWS stated, in a letter dated October 18, 2000 from Regional Director Anne Badgley to Keith Klein, that it believes it is time the Service be added to the Tri-Party agreement. YN supports the agency's request to be added to the TPA. It will ensure that natural resources, especially ESA and MBTA species, are properly addressed.

Reactors

The nine reactors are located next to the Columbia River on land ceded to the United States by YN, which retains rights to fish, hunt and gather foods in this area. YN considers the area to be of great cultural significance, and as you are aware, numerous archeological sites exist in this vicinity. We have concerns about plans which might increase inappropriate access to this area, cause degradation of cultural resources or leave structures that pose a risk to future generations of the Yakama people.

The nine reactor facilities contain hazardous substances that create a potential threat to human health and the environment. It is unclear from the M-093 proposed change package language whether all nine reactors are on the same path toward closure and removal from the river corridor. The regulators need to ensure that the disposition of each reactor is consistent and meets the intent of all environmental laws and past NEPA decisions regarding their disposition to ensure protection of human health and the environment. The threat of radiological release and exposure remains the technical basis for closure and disposal of the facilities and reactors to an engineered solid waste landfill.

Conclusion

In summary, as currently written the draft milestone language is unable to ensure the protection of the Yakama people and reserved treaty resources. The Tri-Parties have yet

to make an effort to consult and coordinate with YN early in the process to ensure that a mutual decision is reached between our governments. Inadequacies in characterization have been noted through discoveries that warrant changes in the way characterization occurs at the Hanford Site. A comprehensive assessment is needed early in the interim remedial investigation process.

According to the regulations, 40 CFR § 300.430, the remedial investigations help establish baseline conditions, which assist the regulators in assessing how effective interim actions have been. The proposed B/C pilot project is unnecessary, since site-specific characterization is occurring at other superfund sites that could be replicated here. The Tri-Parties need to acknowledge these efforts and implement a comprehensive assessment for the 100 and 300 Area NPL sites immediately. Independent oversight is needed, since the Tri-Parties have not demonstrated the ability to perform an unbiased, scientifically sound and defensible assessment. The USFWS should be included as a party to the consent order and participant in the negotiations of these specific milestones. The regulators need to ensure that the disposition of each reactor is consistent and meets the intent of all environmental laws and past NEPA decisions regarding their disposition to ensure protection of human health and the environment. Finally, we are submitting proposed language to establish specific milestones in the final milestone package for the 100 and 300 Areas NPL sites, M-16-00F and M-16-03A respectively. See Attachment.

We believe meetings between your agencies and the YN are necessary to discuss the proposed 100 and 300 Area NPL site change package language, so we may work toward final language that resolves characterization concerns. Please let me know when you will be able to meet to discuss the issues outlined here.

Sincerely,

for Russell Jim
Manager
Yakama Nation ER/WM Program

Attachment

cc: Jessie Roberson, Assistant Secretary for EM, USDOE
L. John Iani, Region X Administrator, USEPA
Tom Fitzsimmons, Director, Washington Department of Ecology
Larry Goldstein, Chair, Hanford Natural Resources Trustee Council
Todd Martin, Hanford Advisory Board
100 Area Administrative Record
300 Area Administrative Record

ATTACHMENT

Title

Establish Biological Assessment Milestone for the 100 and 300 Area NPL sites (M-16-00F and M-16-03A, respectively).

Description

This change request establishes new milestones for the 100 and 300 NPL sites. The milestones provide for timely completion of a technically defensible and quantitative biological assessment. A biological assessment is a valuable tool in the remedial decision-making process to aid in the characterization and evaluation of the nature and extent of contamination at the 100 and 300 NPL sites, and to determine adverse effects to the environment (biota) posed by the contaminants at the site. Where feasible, this approach will provide a pre-remedial (baseline) and post-interim remedial assessment to determine whether additional remedial actions are needed. Pre-remedial assessment information will ascertain the effects of hazardous substances on flora, fish and wildlife that inhabit the NPL sites. The information also will assist remedial project managers in establishing clean up levels protective of sensitive biological receptors, calibrating and verifying ecological risk models, and providing documentation that interim remedial measures are reducing or eliminating exposure/toxicity.

A biological assessment is needed at the site for the following reasons: 1) little site-specific information exists about the effects of hazardous substances originating from the NPL sites or Hanford on biota; 2) it is difficult to determine whether proposed cleanup actions will be protective of biota, or whether contaminants of concern to sensitive species have been identified and addressed in the RI/FS process; and 3) an assessment will assist in establishing cleanup levels that may need to be more stringent than the human health cleanup criteria to ensure protectiveness of ESA and treaty species and resources. At this time USDOE is unable to demonstrate that remedial actions have been protective.

Impact of Change

Modifies regulatory requirements governing ecological risk assessment/ biomonitoring at the Hanford Site.

Affected Documents

The regulatory agencies will identify these documents.

Proposed Milestones

M-16-___

Creation of a scientific team with interdisciplinary expertise in biology, ecology, and fish and wildlife toxicology and comprised of federal experts from USFWS and USGS, who will be co-leads on the assessment, and USDOE and tribal technical staff. USDOE will enter into interagency agreements with the federal agencies for work to be performed on the assessment, and the team will be assembled and functioning by September 2002. The federal natural resource agencies will maintain oversight over the entire assessment process.

M-16-___

Biological assessment process consists of the four following interrelated components:

1) problem formulation,
2) exposure assessment,
3) biological effects assessment, and
4) risk characterization.

These activities will be developed by the scientific team and implemented by federal natural resource agencies/site contractors with the results provided directly to the site managers. This milestone is consistent with CERCLA and the NCP, USDOE and EPA policy and guidance, and MTCA. (Initiation date: fall 2002; Completion date: 2005).

Activities Included in the Four Components

Problem Formulation: Focus on collecting preliminary information necessary to design the exposure and biological effect assessment, and identify data needed to complete those assessments. Preliminary information shall include:

- Environmental setting and compilation of contaminants known or suspected to exist at the site;
- review of site literature to determine compounds uptaken by biota in the past;
- identification of data gaps for contaminants not previously screened in biotic surveys;
- development of flagging criteria for determining major contaminants of concern to biota (e.g., the compound has been reported in the literature as carcinogenic);
- ranking contaminants based on criteria;
- identification of appropriate receptors, e.g., species protected under federal laws (Migratory Bird Treaty Act, Endangered Species Act, Treaty of 1855).

Exposure Assessment: Measurement of exposures to receptors from contaminants identified in the flagging/ranking process. This component is intended to quantify the magnitude and type of actual exposures of biological receptors to the contaminants.

Biological Effect Assessment: Deployment of toxicity testing (positive control dosing with target contaminants) and field studies to determine cause-and-effect and develop dose-response (effect) relationships that aid in establishing cleanup levels protective of biota. The team will select the assessment and measurement endpoints. A literature review will be conducted to assist in this task. Endpoints measured in the lab will also be measured in the field. Multiple trophic levels will be assessed in order to obtain a comprehensive understanding of the ecotoxicological effects at the NPL site.

Risk Characterization: Develop risk models to determine future risk based on biological effects observed from the exposure and effect assessments and long-term biomonitoring, and determination of extent and severity of effects to individuals/populations.

This biological assessment is intended to be an iterative process. As biotic data are collected and analyzed for the 100 and 300 Area NPL sites, the team leaders may revise the objectives and scope of the assessment. The information can assist in determining whether there is a need for more study, different studies or fewer studies.