Comments and Responses to the Tentative Agreement on Hanford Federal Facility Agreement and Consent Order Implementing Changes to Central Plateau Cleanup

October 2010

Public Comments and Responses to the March 2010 Tentative Agreement On Hanford Federal Facility Agreement and Consent Order Change Forms Implementing Changes to Central Plateau Cleanup

Introduction

In February 2009, the U.S. Department of Energy Richland Operations Office (DOE), the State of Washington Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) signed an Agreement in Principle (AIP). In the AIP, DOE agreed to develop a Central Plateau Cleanup Completion Strategy (Strategy) that covered the overall cleanup of the Central Plateau including non-tank farm waste site operable units, excess facilities and groundwater remediation. An additional AIP, *Negotiation of Hanford Federal Facility Agreement and Consent Order Revisions for Central Plateau Facility Disposition Activities,* was signed by the Parties in August 2008.

During negotiations, the Parties had numerous interactions with tribal nations and stakeholders to solicit, consider, and incorporate their input in the development of the draft change packages. In late March, 2010 tentative agreement was reached and proposed change packages were developed by the Parties.

Also, the Parties agreed to explore Tri-Party Agreement modifications to address environmental contamination in the soil underlying single-shell tanks, in coordination with other deep vadose zone activities. The Parties signed an AIP to initiate negotiations when the Consent Decree in *Washington v. Chu, Case No. 08-5085-FVS* is entered into court. The AIP was included for public information only.

The proposed TPA changes on Central Plateau cleanup were:

Modification	Title
M-15-09-02	Modify Tri-Party Agreement M-15 series milestones for Central Plateau waste sites and groundwater.
M-16-09-03	Modify M-016-00 major milestone scope and establish additional M-16 series milestones to implement U Plant (221 U facility) remediation.
M-37-10-01	Add Tri-Party Agreement Treatment, Storage, Disposal (TSD) Unit Closure Interim Milestones
M-85-10-01	Modify Tri-Party Agreement to add M-85 series milestones for Central Plateau facilities and associated waste sites
C-09-07	Revise Tri-Party Agreement Appendix C to align operable unit assignments with proposed Central Plateau decisions
P-00-09-02	Update Tri-Party Agreement Action Plan, Sections 7.0 and 8.0 to incorporate changes to the Central Plateau cleanup approach coordinating waste site and facility disposition
L-09-01	Implement the Corrective Action Decision / Record of Decision (CAD/ROD) document process in the Hanford Federal Facility Agreement and Consent Order

P-00-09-01	Implement the Corrective Action Decision / Record of Decision (CAD/ROD) document process in the Hanford Federal Facility Agreement and Consent Order Action Plan
P-07-09-02	Modify Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Action Plan Section 7.3.8 to assign responsibility for initial preparation of Records of Decision to the U.S. Department of Energy
J-09-01	Establish Tri-Party Agreement Appendix J Listing of Central Plateau Facilities
A-10-01	Revise Appendix A Definition of "Facility"

A formal public comment period on the proposed TPA changes, originally scheduled to run from May 3 through June 17, 2010, was extended through June 30, 2010 in response to requests from stakeholders. Over 2,800 copies of the fact sheet were distributed either by mail (~ 2200) or sent electronically (~600) at the start of the public comment period. In June, public meetings were held in Portland, Oregon and Seattle, Washington. This document contains the comments received on proposed changes to draft TPA Central Plateau Cleanup change package and the Parties' responses to those comments.

Individuals sent written comments through the mail or electronically. Written comments were also collected at the two public meetings. Working with stakeholders, the Parties developed the public meeting format. Key stakeholders selected a few discussion topics and structured the meeting to provide opportunities for the public to discuss these issues. Meeting discussions were captured on flip charts and in meeting notes and emailed to the meeting participants to help them in the formulations of their comments.

Eighty comments were received from 18 individuals and groups covering a wide range of topics and diverse perspectives. This document provides responses to comments from each individual or organization. Major comment themes included: support for the deep vadose operable unit, including the need for an integrated, comprehensive approach and use of commercial (offsite) technologies; concerns over how the Corrective Action Decision/Record of Decision (CAD/ROD) approach will work, including the public appeal process; lack of support for DOE to write the draft records of decision, and the need to address pre-70 transuranic contamination.

During the same timeframe, the Parties also conducted negotiations covering retrieval, storage and treatment/processing of Hanford Site "retrievably-stored" Resource Conservation and Recovery Act (RCRA) mixed and suspect mixed low-level waste, as well as "retrievably-stored" RCRA mixed and suspect mixed transuranic waste (M-091). A separate Tentative Agreement and Tri-Party Agreement change package identified necessary preparations supporting the acquisition of new facilities, modification of existing and planned facilities, and milestones for retrieval of waste from trenches in the Central Plateau and shipment of waste to the Waste Isolation Pilot Plant.

Concurrent, but separate, public comment periods were held on changes proposed to Central Plateau cleanup and mixed low-level and transuranic mixed waste (M-091).

Some commenters commented on both the Central Plateau cleanup and the mixed low-level and transuranic mixed waste change packages in a single letter or email. The comments found in this document are specific to the Central Plateau cleanup change package and in black text while those that

relate to the mixed low-level and transuranic mixed waste change package are shaded in gray. A separate Comments and Responses document was developed to address comments received on that change package.

Appendix A provides an index of commenters in alphabetical order matched to comment and response by page number. Copies of the original comments are in the Administrative Record located at 2440 Stevens Center Place, Room 1101, Richland, WA., web site address**:** http://www2.hanford.gov/arpir/

Based on the comments received, the following changes were made to the draft change packages:

- The Tri-Party Agreement homepage will contain a map and charts that will explain realignment of the operable units.
- EPA will write the draft ROD or it will be written jointly by EPA and Ecology, if Ecology is the lead regulatory agency. The lead regulatory agency in cooperation with DOE (and EPA if Ecology is the lead regulatory agency), will finalize the ROD.
- The RCRA-CERCLA Past Practice definition was revised.

COMMENTER 1: Mecal Samkow

Comment 1.1: Please do hold a public comment meeting in Portland, Oregon.

Response to Comment 1.1: Thank you for your comment. A public meeting was held June 23, 2010, in Portland, Oregon on the draft Tri-Party Agreement change packages.

COMMENTER 2: Alex Sager

Comment 2.1: I very much hope that there will be a public comment meeting in Portland, Oregon. Beyond the importance of the issues for people in the area, my students at Portland State University are doing a semester-long project on Hanford with attention to the Tri-Party Agreement. We will plan to attend and would like the opportunity to comment.

Response to Comment 2.1: Thank you for your comment. A public meeting was held June 23, 2010, in Portland, Oregon on the draft Tri-Party Agreement change packages.

COMMENTER 3: Stuart Harris, Director, Department of Science and Engineering, Confederated Tribes *of the* Umatilla Indian Reservation

Introductory Statement: The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) appreciate the opportunity to comment on the Tri-Party Agreement changes. The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) have a vital interest in the current and future condition of Hanford, the Hanford Reach, and Hanford-affected lands and resources. The USDOE's Hanford site was developed on land ceded by the CTUIR under the 1855 Treaty with the United States. The CTUIR reserved rights to this land and retained and reserved the perpetual rights to hunt, fish, gather, pasture livestock, and pursue other activities throughout the region, including the area in and around Hanford. The Hanford site contains critical and unique shrub steppe habitat, and the Hanford Reach is the last free-flowing segment of the Columbia River and is home of the last remaining naturally spawning fall Chinook.

Through nuclear weapons production activities, it has taken less than one lifetime to contaminate and thereby permanently affect the ability of CTUIR to safely use the Hanford Nuclear Reservation Area and its resources. The Hanford cleanup is the largest cleanup effort in the world. Yet according to the Central Plateau Cleanup Completion Strategy; "Currently no feasible technology exists to cleanup some of the contamination in the deep vadose zone that might threaten the groundwater." CTUIR assumes that the current proposed changes represent the best current thinking about how to proceed with cleanup. Since the Tri-Parties have already reached agreement, the CTUIR is only providing a few comments.

Response to Introductory Statement: The Parties appreciate your interest in and comments on the proposed changes to the Tri-Party Agreement (TPA) on Central Plateau cleanup work. We welcome your continued involvement in the decision making process. The TPA agencies considered all Tribal Nation and stakeholder comments before finalizing the change packages.

The U.S. Department of Energy Richland Operations Office (DOE-RL) offers opportunities for consultation with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) pursuant to its 2009 DOE Order 144.1, *U.S. Department of Energy American Indian & Alaskan Native Tribal*

Government Policy. DOE recognizes its federal trust relationship and has committed to a government-to-government relationship.

Ecology consults with the CTUIR in accordance with section 10.10 of the TPA Action Plan and the Washington Centennial Accord. EPA is committed to a government-to-government relationship with the CTUIR in accordance with EPA's Indian Policy.

The changes made to the TPA represent the Parties' agreement on how to comprehensively address cleanup of soil waste sites and facilities on the Central Plateau. The change package establishes the Deep Vadose Zone Operable Unit (200-DV-1 OU) to provide for a systematic approach to the challenges presented by contamination in the deep vadose zone. It also has a milestone that requires DOE to submit a work plan for a site investigation and corrective measures study/feasibility study for the 200-DV-1 OU that includes technology screening that identifies technologies applicable for characterization, treatment and monitoring of deep vadose zone contamination.

Comment 3.1: The CTUIR notes that DOE/RL expects the groundwater to reach drinking water standards with a century, more or less, while the TC&WM EIS shows that this will essentially never occur. The reality, therefore, lies somewhere between 'safe to drink' and 'lethal forever.' The TC&WM EIS was charged with developing the newest and best Hanford GW/VZ model, with peer review and configuration control, so the CTUIR have to conclude that reality is closer to the 'lethal forever' condition. We urge the Tri-Parties to sort this out, because no more final decisions can be reached until this uncertainty is reduced to tolerable levels.

Response to Comment 3.1: The commenter requests the Parties sort out the perceived difference between DOE-RL expectations for groundwater cleanup versus the Draft Tank Closure & Waste Management Environmental Impact Statement (TC&WM EIS) findings. The Parties' goal is to restore the groundwater under the Hanford Site to beneficial use. The 200 West groundwater treatment system currently under construction is designed to remove 95% of the key contaminants from the groundwater within 25 years. In the modeling analysis, the draft TC&WM EIS discussed but did not factor in any future groundwater remedies that were in place or are planned. DOE is in the process of reviewing public comments on the Draft EIS (that included issues similar to those raised by this commenter), and making appropriate changes to the Final EIS based on the public's input.

Comment 3.2: The CTUIR want to reiterate the importance of cleanup of the groundwater and the protection of the Columbia River. Therefore, it is important to continue developing the technology and a strategy to clean up the deep vadose zone contamination.

Response to Comment 3.2: The Parties recognize that the contamination in the deep vadose zone must be addressed and have established the Deep Vadose Zone Operable Unit (200-DV-1 OU). The Parties will use a systematic approach to the 200-DV-1 OU. A RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS) & Remedial Investigation/ Feasibility Study (RI/FS) work plan (TPA milestone M-015-110A) for the 200-DV-1 OU is required. The work plan will include technology screening that identifies technologies applicable for characterization, treatment and monitoring of deep vadose zone contaminants. DOE began this screening process by holding a Deep Vadose Zone Technical Forum on July 20-21, 2010. DOE will provide periodic updates on progress to Tribal Nations, the Hanford Advisory Board, the Oregon Hanford Cleanup Board and State of Oregon, and in other appropriate public forums. Information will also be made available through DOE's website at www.Hanford.gov/ .

Comment 3.3: The CTUIR would like to see the outline of the Lifecycle Report as soon as it is available. The lifecycle report could become a very important guidance document that contains cost projections, schedules, endstate descriptions, and a variety of restoration, stewardship, and environmental justice goals. Or, it could be bland and uninformative.

Response to Comment 3.3: A draft outline of the 2011 Lifecycle Scope, Schedule and Cost Report (Lifecycle Report) was shared at the January 26, and May 12, 2010 Tribal Working Sessions. At those meetings DOE discussed the status and purpose of the report, which is to enable Ecology, EPA and others to provide input into DOE's planning assumptions on an annual basis. This will help ensure DOE is on track to timely complete all requirements.

During the development of the annual report, the Parties' goal is to facilitate an iterative process with the Tribal Nations where the agencies share information and obtain your feedback. It has always been the intent of the Parties to status the Tribal Governments on the Lifecycle Report and to continue to inform and sustain dialogue as we develop this first draft Lifecycle Report. The draft report is anticipated to be shared with the regulatory agencies, Tribal Nations, and State of Oregon late 2010 or early 2011.

Comment 3.4: In the TPA changes, the language that states, "reaching mutually agreeable alternatives and end states" seems to have been removed. Instead, the language simply offers to discuss issues with Tribal Nations. The CTUIR want to maintain an active role in decision-making according to the DOE Indian Policy and Framework. Therefore, the language should acknowledge that Government to Government protocols exist and will be followed.

Response to Comment 3.4: The text on "reaching mutually agreeable end states" was deleted as part of the revision of Section 8 of the Action Plan, *Facility Decommissioning Process* (now *Facility Disposition Process*). Section 8 establishes the regulatory path forward to disposition the canyons and other important Central Plateau facilities using established CERCLA remedial action and RCRA closure processes. The milestone also defines the process to disposition other facilities using a graded approach and CERCLA response actions as needed.

Deletion of this text does not change the Parties' recognition of Tribal Nation sovereignty and commitment to a government-to-government relationship with them. This commitment and the actions to be taken by the Parties are described in Section 10.10 of the Tri-Party Agreement Action Plan. The Parties look forward to continued participation by the CTUIR in the CERCLA process.

Comment 3.5: The CTUIR are concerned about the Modification P-07-09-02. The language shifts the responsibility of writing RODs from EPA and Ecology to DOE. While the regulatory agencies retain a concurrence role, it leaves the selection of final remedies and the establishment of remedial goals up to DOE. Because DOE steadfastly refuses to acknowledge on-site Treaty rights, refuses to use the CTUIR exposure scenario as a baseline scenario, and refuses to set cleanup goals to protect Tribal health, this will become a significant focus of the NRDA process.

Response to Comment 3.5: A number of commenters raised concerns about DOE writing the initial drafts of RODs. Therefore, the Parties agreed to revise the change form so it provides that EPA will write the draft ROD or it will be written jointly by EPA and Ecology, if Ecology is the lead regulatory

agency. The lead regulatory agency in cooperation with DOE (and EPA if Ecology is the lead regulatory agency), will finalize the ROD.

As previously stated, DOE recognizes its federal trust relationship and the need to fulfill Treaty and Trustee obligations. It has committed to a government-to-government relationship with the Tribes as they implement cleanup activities at the Hanford site.

Parties are currently discussing exposure scenarios. Based on these discussions, DOE expects to evaluate multiple exposure scenarios in the risk assessment, including:

- one or more residential scenarios based on Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and Model Toxic Control Act (MTCA) guidance
- non-residential scenarios based on the reasonably anticipated future land uses on the Central Plateau (e.g., industrial in the Inner Area)
- tribal subsistence scenarios based on parameters provided by the CTUIR and the Yakama Nation, and
- non-residential tribal scenarios.

These scenarios will evaluate the potential risks for a range of exposures. The specific scenarios to be evaluated as part of the risk assessment will be documented initially in the remedial investigation/feasibility study work plans developed for the various Central Plateau operable units. The selection of remedial actions that protect human health and the environment will be conducted pursuant to the CERCLA Record of Decision (ROD) process.

COMMENTER 4: Norm Buske

Comment 4.1: Congratulatons on progress toward cleaning Hanford up! The emphasis on a geographic approach with more focus on the Deep Vadose Zone is good.

Response to Comment 4.1: The Parties appreciate your feedback and support for this approach to clean up the Central Plateau and the increased focus on deep vadose zone cleanup.

Comment 4.2: The large number, variability, and complexity of sites to be remediated still render conceptualization of the undertaking difficult and management of the operations problematic.

With that in mind, I remember the large thorium-to-uranium-233 program at Hanford through the 1960s and 70s. That program should at least be mentioned, so that the proposed framework for the cleanup will be more nearly comprehensive.

That inclusion cannot solve the inevitable problem of programmatic blindspots, but it will help to get rid of one generic biggie.

Response to Comment 4.2: Thank you for your comment. As you know, thorium processing occurred at PUREX in 1966 and 1970 to separate and purify Th-232 and U-233. The process flow sheet and historical records indicate that approximately 8 curies of U-233 (less than one kilogram) and a negligible amount of Th-232 were discharged into several liquid waste disposal sites around PUREX. These sites will be addressed as part of cleanup of the 200-EA-1 (200 East Inner Area) and 200-CW-1 (part of the Outer Area) operable units.

Some of the separated thorium was temporarily stored in tanks in the 241-WR Vault in the 200 West Area. In 1965, after the thorium was removed, the tanks were flushed and the effluent was discharged to the 216-U-12 crib. This crib was formerly in the 200-UW-1 operable unit and was transferred to the 200-WA-1 (200 West Inner Area) operable unit. Thorium-232 was a target analyte during sampling of this crib where it was detected at a concentration below background. As a result, it is not considered a contaminant of potential concern at the 216-U-12 crib.

Comment 4.3: The concept of the Inner Area is excellent: "The Inner Area is envisioned to be the smallest practical final cleanup footprint where waste management and containment of residual contamination will occur." However, it is way too early to know how small that final footprint can be.

I believe the program would benefit from

- continuing, strategic effort to move sites for cleanup from Inner Area to Outer Area designation and remediation.

- continuing evaluation of feasibility of lowering planned, final residual contamination and improving final residual waste management within the Inner Area.

Response to Comment 4.3: The goal is to achieve the smallest practical area for waste management and containment of residual contamination at the Hanford Site. This goal will factor into the decision-making process for soil waste sites, facilities, and the deep vadose zone. As the investigations, testing, evaluations and decision processes proceed, additional milestones will be developed to guide and direct the pace and progress of cleanup and to ensure protection of human health and the environment.

The Parties are sensitive to the goal of achieving the smallest practical footprint for the Inner Area. The *Central Plateau Cleanup Completion Strategy* developed by DOE displayed proposed Inner Area boundaries. During negotiations, the Parties agreed to move one large site, the 216-U-10 pond, from the 200-East Inner Area operable unit to the Outer Area operable unit. Cleanup of this 30-acre site, as well as other waste sites in the Outer Area, will be consistent with cleanup of the River Corridor to allow unrestricted surface uses of the area and assure that groundwater meets beneficial use.

The Parties will periodically evaluate the potential to re-assign waste sites from the Inner Area to the Outer Area as the RI/FS process for the operable units on the Central Plateau progresses.

COMMENTER 5: Shirley Nelsen

Comment 5.1: I am opposed to reclassifying contaminated soil sites from cleanup.

Response to Comment 5.1: Reclassification of waste sites does not change the requirement to conduct cleanup to protect human health and the environment. CERCLA remedial action and RCRA corrective action both require cleanup that is protective of human health and the environment.

Comment 5.2: I am opposed to allowing UADOE to erplad [replace] EPA in drafting cleanup rules.

Response to Comment 5.2: A number of commenters raised concerns about DOE writing the initial drafts of RODs. Therefore, the Parties agreed to revise the change form so it provides that EPA will write the draft ROD or it will be written jointly by EPA and Ecology, if Ecology is the lead regulatory

agency. The lead regulatory agency in cooperation with DOE (and EPA if Ecology is the lead regulatory agency), will finalize the ROD.

Comment 5.3: I am very concerned about te delays which have already occurred. Our presence here, and what we do now, will impact the lives and well being of generations to come. And maybe the earth itself.

We need to do the right thing.

You need to do the right thing.

Because it is the right and moral thing to do.

Response to Comment 5.3: The Parties share a common goal – to clean up Hanford so that it is protective of human health and the environment. It is a difficult decision to extend milestone schedules and delay cleanup work.

For the past twenty years, the Parties have worked with the Tribal Nations, State of Oregon, stakeholders and the public to identify Hanford cleanup priorities. Protection of the Columbia River is a shared goal that guides Hanford cleanup.

Today there is a strategy being implemented to clean up the River Corridor and with the finalizing of these milestones the Parties have a new comprehensive approach to clean up the Central Plateau, including non-tank farm waste site operable units, excess facilities and groundwater.

Comment 5.4: Do not loosen restrictions and have agencies with vestied interests being the watchdogs and decision makers.

Response to Comment 5.4: The changes being made to the Tri-Party Agreement establish specific milestones for completion of Central Plateau cleanup. The CERCLA and RCRA processes, as applied on the Central Plateau, includes substantial interaction between DOE and the lead regulatory agencies to ensure that cleanup will be protective of human health and the environment, and comply with applicable laws and regulations.

COMMENTER 6: Lunell Haught

Comment 6.1: Thank you for the work you have done and the efforts being made to clean up Hanford.

Response to Comment 6.1: The Parties appreciate your involvement in Hanford cleanup issues and your comments.

Comment 6.2: At this time the recommendation is for the USDOE to write the formal record of decision and plans, which is unacceptable because it does not appear objective, particularly given the history of the sight, and the increasing skepticism of the American public's confidence in self-regulation/monitoring.

Response to Comment 6.2: A number of commenters raised concerns about DOE writing the initial drafts of RODs. Therefore, the Parties agreed to revise the change form so it provides that EPA will write the draft ROD or it will be written jointly by EPA and Ecology, if Ecology is the lead regulatory

agency. The lead regulatory agency in cooperation with DOE (and EPA if Ecology is the lead regulatory agency), will finalize the ROD.

Comment 6.3: Additionally, the plan to clean up the central plateau doesnt address the pre-1970 waste, nor does it successfully address what to do with waste after 2030. I have heard clean-up talks sponsored by representatives of the Hanford site and believe I have a rudimentary grasp of the situation, and it seems that what is 'too hard' is simply ignored, much to our continuing peril.

Response to Comment 6.3: The Parties changed the M-91 milestone so that transuranic waste at the Hanford site will be addressed before 2030.

The pre-1970 burial grounds and other waste sites that contain transuranic contaminants are addressed by the change package. The pre-1970 burial grounds are included in the 200-SW-2 operable unit. There are two interim milestones for the pre-1970 burial grounds: the M-015-93A milestone which calls for the submittal of a RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study work plan for the 200-SW-2 operable unit by 12/31/2011 and milestone M-015-93B which requires submittal of a RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study report and a Proposed Corrective Action Decision/Proposed Plan for the 200-SW-2 operable unit by 12/31/2016. The compliance date to complete the cleanup of this operable unit is September 30, 2024.

The Parties held a Hanford Advisory Board Committee of the Whole meeting October 5 (public invited) and will conduct regional public meetings to get early input on cleanup of these burial grounds. The Parties previously conducted a public workshop on some of the other waste sites and expect to hold a 30-day public comment period in March 2011 on a document (the 200-PW-1/3/6 and CW-5 Proposed Plan) that evaluates and identifies a preferred alternative to clean up waste sites that contain transuranic contaminants.

Comment 6.4: We are horrified by the BP oil spill, but the Hanford situation, in it's own way, is similar, only taking decades to unfold. Please take action.

Response to Comment 6.4: Thank you for your comment. The TPA agencies' highest priority is the protection of human health and the environment. For the past twenty years, the agencies have worked with the Tribal Nations, State of Oregon, stakeholders, and the public to identify Hanford cleanup priorities and implement safe, effective cleanup strategies to address the highest risks. The agencies' websites identified below provide more information on Hanford's ongoing cleanup efforts.

www.hanford.gov/?page=708
yosemite.epa.gov/r10/cleanup.nsf/sites/hanford
www.ecy.wa.gov/programs/nwp/environmental_restoration.htm

COMMENTER 7: Tim Jarvis

Comment 7.1: The proposed changes include work to be conducted under CERCLA. However, the description of work does not include a Remedial Investigation as required under CERCLA regulations. Instead the description of work begins with the Remedial Action Work Plan (RAWP). Thus, what is proposed is not a CERCLA remediation, but a dangerous abbreviation of the CERCLA procedure for remediation.

Logic dictates that we must characterize what is to be cleaned up before we can successfully develop a work plan for the cleanup. This is also a Lesson Learned from the early day of CERCLA. Cleanup of a poorly- characterized waste site leads to spread of contamination and incomplete cleanup. In simple terms; if we do not understand what we are cleaning up, we may spread contamination further and need to redo the cleanup.

Use of a RAWP not supported by a Remedial Investigation is not protective of the public and environmental health because:

- A RAWP does not present a baseline hazard characterization of the remedial sites in sufficient detailed for scientific qualitative assessment of the health risks resulting from toxic or radiologic air emissions to the public, resulting from the proposed remedial actions.
- A RAWP does not present a plausible path forward for obtaining a hazard characterization sufficiently detailed for a scientific qualitative assessment of the health risks, resulting from toxic or radiologic air emissions to the public resulting from the proposed remedial actions.
- A RAWP gives no quantification of amount, or form of chemical hazardous or radioactive materials or waste present at the remediation sites; thus a scientific quantification of public health risk not possible.
- A RAWP gives no quantification of amount or form of mixed chemical and/or radiological hazardous materials present at the remediation sites; thus making a scientific quantification of public health risk impossible.
- A RAWP gives no quantification of the amount or form of radiological-hazardous materials present at the remediation sites; thus making a scientific quantification of public health risk impossible.

Thus, the proposed changes to the Tri-Party Agreement are; (1) not health protective, (2) not in keeping with the established CERCLA remediation procedure or regulations, (3) have limited probability of success, and (4) will lead to spending more public monies for cleanup of the original problem, plus the problems this carelessness will produce.

US EPA has allowed this change process to advance without protest against not using the CERCLA process for remediation and against the CERCLA regulations. This fact alone should indicate that the US EPA does not have the will or the resources to regulate or oversee remediation work at Hanford. Therefore, this change package is not health protective for the citizens of the State of Washington and should be rejected.

Response to Comment 7.1: The process and requirements in the change package follows the full CERCLA process. The final change package has eight (8) new remedial investigation/feasibility study (RI/FS) work plan milestones and seven (7) new milestones for feasibility studies and proposed plans. The RI/FS Work Plan will describe the baseline risk assessment, evaluate data already available, identify investigation needs to determine the nature and extent of contamination, identify additional information that is required to make a remedy decision, and set the schedule for the remainder of the decision process.

There are two proposed milestones (M-16-200A and M-16-200B) that reference the approved Remedial Action Work Plan (RAWP) for the 221-U Building. Those milestones are consistent with the CERCLA process, because an RI/FS has been completed and the CERCLA Record of Decision for the 221-U Building was already approved.

Comment 7.2: The draft change package effectively moves three canyon facilities (B Plant, PUREX, and REDOX) out of the regulatory control of Washington State Department of Health and the Benton Clean Air Agency (asbestos), and under the total control of EPA via the CERCLA regulations. This is a dangerous move for the people of this State because these canyon facilities have the potential to emit large quantities of radioactive material into the ambient air of the State of Washington.

Currently, the US DOE is under pressure to spend as much ARRA money as possible for the political benefit of the current administration. The US EPA is also under this political pressure. Removing Washington State level oversight of theses canyon facilities opens the doors for the US DOE and US EPA to begin remediation of these canyon facilities without regard to the radiological and asbestos emissions resulting from their remediation. That is, the administrators of US DOE and US EPA may both receive political benefits from endangering the health of the people within the State of Washington.

In addition, the US EPA does not have personnel assigned to oversee Hanford activities that have the education, certifications, or experience to understand and/or regulate the complicated air emissions associated with these canyon facilities. Without the scientific and technical personnel available, the US EPA has no course available but rubberstamp approval for any request from US DOE. The Tri-Party Agreement was negotiated and signed for the purpose of adding local regulation and oversight to the remediation process at Hanford. This change package reverses this intent by removing local regulation and oversight.

For the benefit of both the public health and the budget it is best that all canyon facilities be remediated outside of the CERCLA process via with local regulation and oversight.

Response to Comment 7.2: Only on-site response actions taken in accordance with CERCLA are exempt from state permit and procedural requirements, and the substantive provisions of the laws and regulations that were followed under the site-wide air operating permit still must be satisfied in accordance with CERCLA applicable or relevant and appropriate requirements. EPA has significant technical resources and capabilities aimed at the regulation of air emissions. EPA has expertise within the region, as well as nationally. For example, when the Command 24 Fire occurred at Hanford in 2000, EPA brought its experts from the Las Vegas laboratory and used EPA contractors to set up high-volume air samplers. This effort greatly improved the ability of the Parties to determine what levels of contamination were in the ash and dust being blown off the Hanford Site in the aftermath of the fire. Besides EPA's expertise and capabilities, EPA and Ecology rely on those of the Washington State Department of Health's Air Radiation monitoring program. Project managers for the regulatory agencies traditionally have Health's staff review air monitoring plans and perform computer modeling of potential emission sources. Health's monitoring capabilities are also used regularly to complement monitoring performed for remediation of waste sites and removal or demolition of buildings to assure compliance. Although not required, DOE typically reports CERCLA demolition activities that may involve asbestos to the Benton County Clean Air Authority.

COMMENTER 8: Susan Leckband, Chair, Hanford Advisory Board (Advice #231)

Comment 8.1: The Hanford Advisory Board (Board) appreciates the opportunity to provide advice on the *Proposed Changes to the Tri-Party Agreement (TPA) for Central Plateau Cleanup Work, and for Mixed Low-Level Waste and Transuranic Mixed Waste (TPA Change Packages)*.

The Board compliments the U.S. Department of Energy (DOE) for providing early opportunities for input on the Central Plateau Cleanup Completion Strategy. Discussions between the Tri-Party agencies [DOE, U.S. Environmental Protection Agency (EPA), and the Washington State Department of Ecology (Ecology)] and the River and Plateau Committee were helpful and constructive. The change package is responsive to several concerns raised during these discussions including the desire to increase the number of Central Plateau Records of Decision.

The Board supports the geographic cleanup approach for the Central Plateau and the inclusion of a major milestone to complete disposition of all Central Plateau facilities. The Board also supports integration of the cleanup of soils, facilities and groundwater.

The Board agrees with the use of final (rather than interim) milestone dates for completion of closure of treatment, storage, and disposal facilities listed in M-037-10 and M-037-11.

Response to Comment 8.1: The Parties appreciate the continuous dialogue and feedback this past year from the River and Plateau committee, the Public Involvement and Communication committee and the Hanford Advisory Board on the *Central Plateau Cleanup Completion Strategy*. The proposed changes to the TPA reflect your input.

Comment 8.2: Both the TPA and DOE's baseline should be aligned with the Waste Isolation Pilot Plant (WIPP) transuranic waste repository schedule to ensure that all WIPP-eligible Hanford waste is disposed at WIPP. The change package extends the final Hanford shipments of transuranic mixed waste to 2035 while the current legally required closure date for WIPP is 2030.

The TPA should require early shipment of available transuranic waste to minimize the risk of WIPP closing prior to all Hanford shipments.

Response to Comment 8.2: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 8.3: The Tri-Party agencies should continue to improve the safety of WIPP shipments (e.g. by avoiding inclement conditions).

Response to Comment 8.3: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 8.4: Cleanup decisions for remote-handled transuranic waste, transuranic elements disposed of prior to 1970 ("pre-1970 TRU"), and canyon facilities treatment and disposal should be compliant with the 2024 milestone for completion of cleanup of non-tank operable units of the Central Plateau.

Response to Comment 8.4: The Tri-Party Agreement milestone M-016-00 requires remediation to be completed for non-tank farm, and non-canyon operable units by 2024. Soil waste sites that may

contain transuranic isotopes, such as those in the 200-PW-1/3/6, 200-CW-5 (plutonium-rich sites), and 200-SW-2 (burial grounds) operable units, are included within the scope of that milestone.

The canyon buildings were not previously included as part of the operable units subject to the M-016-00 milestone for completing remedial actions. The changes made to the TPA establish a path forward for completion of canyon remediation and cleanup of other Central Plateau facilities. However, the final date for completing facility cleanup is still to be determined. It is Parties' goal to complete facility cleanup as soon as possible, however, the complexity of the issues associated with the canyon facilities and the interfaces and interferences with other activities on the Central Plateau may impede completing canyon or other facility remediation by 2024.

For example, tank farm storage and retrieval activities and the operation of the Waste Treatment Plant require continued operation of the 222-S laboratory and other support facilities into the 2040s or 2050s. The proximity of REDOX to 222-S, while it is still in use, could present unacceptable hazards during REDOX remediation depending on the remedial alternative selected. T Plant Canyon is expected to continue operation into the early 2020s in support of M-091 milestone activities.

Some soil waste sites are associated with the canyon operable units that will also be included in the scope of the M-085-00 milestone to complete remediation of the canyon facilities. The number of waste sites included in the canyon operable units was limited to those adjacent to the canyon building that will be directly impacted by the remedy selected for the canyon.

DOE is required to submit a change package proposing a completion date for major milestone M-85-00 to complete facility response actions by September 30, 2012 (M-085-01). Disposition of materials contaminated with transuranic isotopes will be addressed in accordance with applicable regulations and requirements. The first canyon building to undergo remediation – U Plant (221-U Facility) – will have TRU waste shipped to WIPP by September 30, 2024 in accordance with the Record of Decision.

Comment 8.5: Transuranic elements buried prior to 1970 should be focused on a dedicated, specific TPA milestone. Currently, this waste is included only as a component of other milestones. Given the importance of this waste category, aggressive milestones for characterization, retrieval, treatment, and disposal are important. DOE's baselines should include consideration of retrieving these transuranic elements.

Response to Comment 8.5: The pre-1970 burial grounds and other waste sites that contain transuranic contaminants are addressed by the change package. The pre-1970 burial grounds are included in the 200-SW-2 operable unit. There are two interim milestones for the pre-1970 burial grounds: the M-015-93A milestone which calls for the submittal of a RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study work plan for the 200-SW-2 operable unit by 12/31/2011 and milestone M-015-93B which requires submittal of a RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study report and a Proposed Corrective Action Decision/Proposed Plan for the 200-SW-2 operable unit by 12/31/2016. The compliance date to complete the cleanup of this operable unit is September 30, 2024.

The Parties held a Hanford Advisory Board Committee of the Whole meeting (public invited) October 5 and will conduct regional public meetings to get early input on cleanup of these burial grounds. The Parties previously conducted a public workshop on some of the other waste sites and expect to hold a 30-day public comment period in March 2011 on a document (the 200-PW-1/3/6 and CW-5 Proposed

Plan) that evaluates and identifies a preferred alternative to clean up waste sites that contain transuranic contaminants.

Comment 8.6: The Tri-Party agencies should consider accelerated technology development to meet milestone M-91 remote-handled transuranic waste requirements. The TPA change package should include a milestone for construction of remote-handled transuranic waste storage and treatment facilities.

Response to Comment 8.6: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 8.7: The M-91 milestones for obtaining treatment capability (remote-handled transuranic waste and mixed wastes) should be revised to allow treatment capacity onsite or offsite. (Advice #216).

Response to Comment 8.7: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 8.8: TPA milestones for treating stored mixed waste and retrieved mixed waste would encourage private investment that, in addition to treating waste, could benefit the Hanford budget. The Tri-Party agencies should maintain a clear commitment to these milestones to signal potential opportunities to the private sector.

Response to Comment 8.8: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 8.9: The Tri-Party agencies should not delay treatment of mixed waste or replace enforceable milestones with unenforceable "target schedules" (Advice #216).

Response to Comment 8.9: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 8.10: Board supports the establishment of a separate vadose zone operable unit as an important component of Hanford cleanup. However, DOE still lacks a comprehensive, integrated cleanup approach to the vadose zone. The Tri-Party agencies should develop a systematic approach to vadose zone cleanup that includes site-specific goals, schedules for additional characterization and a range of cleanup technologies (including those found outside of Hanford).

In making cleanup decisions, the TPA agencies should not artificially separate a contaminant plume in the near surface from deeper in the vadose zone. Further, remedies should be based on groundwater protection (in addition to surface receptors) from all unit sources.

Response to Comment 8.10: The Parties recognize that the contamination in the deep vadose zone must be addressed and have established the Deep Vadose Zone Operable Unit (200-DV-1 OU). The Parties will use a systematic approach to the 200-DV-1 OU. A RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS) & Remedial Investigation/ Feasibility Study (RI/FS) work plan (TPA milestone M-015-110A) for the 200-DV-1 OU is required. The work plan will include technology screening that identifies technologies applicable for characterization, treatment and monitoring of deep vadose zone contaminants. DOE began this screening process by holding a Deep Vadose Zone Technical Forum on July 20-21, 2010. DOE will provide periodic updates on progress to Tribal Nations, the Hanford Advisory

Board, the Oregon Hanford Cleanup Board and State of Oregon, and in other appropriate public forums. Information will also be made available through DOE's website at www.Hanford.gov/ .

The Parties address the entire waste site, from ground surface to the water table, in the Deep Vadose Zone operable unit. Waste sites will be evaluated across the entire soil column to select remedies based on protection of human health, ecological receptors, and groundwater. Waste sites that have contaminants near the surface, as well as in the deep vadose zone, may have more than one remedial technology applied to address the multiple risk drivers. Implementation of the selected remedies may occur at different times to permit a more efficient use of resources.

Comment 8.11: All corrective action requirements should be incorporated into the Hanford Facility Permit according to the requirements of the Washington Administrative Code 173-303-64620(3) and -64630(3). These state rules ensure compliance with the Resource Conservation and Recovery Act (RCRA) and the Model Toxics Control Act, and guarantee the public certain rights (including under the State Environmental Policy Act and appeals). Joint decisions compliant with both RCRA and Comprehensive Environmental Recovery, Compensation and Liability Act processes should be issued for those units regulated under both laws.

Changes to the Central Plateau TPA milestones will require parallel modifications to the Hanford Facility RCRA permit. The Tri-Party agencies should collaborate to ensure consistency between proposed RCRA permit modifications and TPA milestone changes.

Response to Comment 8.11: Ecology will continue to incorporate RCRA (HWMA) corrective action into the Hanford Facility RCRA Permit via the Permit Condition II.Y. Ecology uses the remedial action process identified in the TPA Action Plan to satisfy corrective action requirements, with TPA requirements and schedules then incorporated into the Hanford Facility RCRA Permit to satisfy WAC 173-303-64620(3). The proposed incorporation approach is identical to the manner in which the TPA's corrective action requirements and schedules have been incorporated into the Hanford Facility RCRA Permit since the year 2000 (although the scope of this incorporation is now expanded to include incorporation of a final corrective action decision made under the framework of the TPA).

The state will still be making an independent corrective action decision under the proposed permit modification and TPA changes. The state will make this decision in accordance with the corrective action requirements of the Dangerous Waste Regulations, WAC 173-303-64620(4), which require that corrective action be consistent with specified requirements of the Model Toxics Control Act's implementing regulations. These include MTCA's cleanup standards. CERCLA authority will be applied concurrently to these operable units. Issuing CERCLA RODs along with RCRA CADs ensures that regulatory authority is available to address radionuclide contamination.

The public participation processes of the TPA fully satisfy RCRA and HWMA requirements. The Parties have elected to set the duration of public comment under the TPA at 60 days for proposed corrective action decisions and proposed plans.

Outside of Hanford, Ecology typically satisfies corrective action through the conditions of an order or consent decree issued under the independent legal authority of MTCA. Just as TPA requirements are incorporated into the Site-wide Permit through Condition II.Y, the requirements of a MTCA order or decree are incorporated into a hazardous waste facility permit. Ecology takes the position that there is no appeal opportunity of the underlying requirements of a MTCA order when those requirements are

incorporated into a hazardous waste facility permit. *See* WAC 173-303-64630(3) ("In the case of facilities seeking or required to have a permit under the provisions of this chapter the department will incorporate corrective action requirements imposed pursuant to the Model Toxics Control Act into permits at the time of permit issuance. *Such incorporation will in no way affect the timing or scope of review of the Model Toxics Control Act action.*") (emphasis added); *see also*, Ecology Corrective Action Program Description, Department of Ecology (January 7, 1994) at 44. In Ecology's view, Hanford Facility RCRA Permit condition II.Y offers no lesser opportunity for public comment (and appeal) of a TPA corrective action condition than is available with respect to a MTCA condition incorporated into a typical hazardous waste facility permit issued outside of Hanford. Indeed, under WAC 173-303-830, modification or amendment of a corrective action order issued pursuant to MTCA when the MTCA public participation requirements have already been met and the order has already been incorporated into the permit is a Class 1 modification, not a Class 2 or 3 modification.
(WAC 173-303-830 Appendix I.N.5.)

Finally, Ecology expects to make SEPA threshold determinations while developing CADs for R-CPP Units.

Comment 8.12: DOE should collaborate with and include alternatives that the regulators would like to evaluate in the Feasibility Studies and Proposed Plans. This advice is particularly important given the proposed change in which DOE will author Records of Decision for regulator approval. The Tri-Party agencies should evaluate Board and public values when developing and evaluating remedies and Records of Decision. These evaluations should be available to the public. Draft Records of Decision should be made available for public review and comment concurrent with transmittal to the regulators to ensure early recognition of public values.

Response to Comment 8.12: DOE collaborates with the regulatory agencies in developing cleanup alternatives. Feasibility and corrective measures studies, which identify and evaluate cleanup alternatives, must be conducted in accordance with a work plan approved by the lead regulatory agency. Also, a number of commenters raised concerns about DOE writing the initial drafts of RODs. Therefore, the Parties agreed to revise the change form so it provides that EPA will write the draft ROD or it will be written jointly by EPA and Ecology, if Ecology is the lead regulatory agency. The lead regulatory agency in cooperation with DOE (and EPA if Ecology is the lead regulatory agency), will finalize the ROD.

The Parties provide opportunities to inform and involve Tribal Nations, State of Oregon, Hanford Advisory Board, stakeholders and the public before a proposed plan is released for public comment. These interactions are meant to elicit and consider their values in cleanup decisions. Responsiveness Summaries issued along with the decision document (record of decision, action memorandum) provide a record of how comments were considered.

After careful consideration of this and similar comments, the Parties decided that making the draft ROD available for public review would not be in the best interest of cleanup. The opportunity for public review and comment on the proposed remedy is at the proposed plan stage. Adding another review for the ROD would be redundant and could lead to delays in cleanup.

Comment 8.13: A map and chart should be added to the TPA allowing readers to easily see how operable unit decisions and milestones are organized by geographic area. **Response to Comment 8.13:** A map and chart will not be added to the Tri-Party Agreement (TPA). Instead, DOE will post on its TPA website (www.hanford.gov/page.cfm/TriParty) a map and chart showing the organization of the operable units by geographic areas.

Comment 8.14: The Tri-Party agencies should rename the two consolidated Central Plateau TPA groundwater operable units "200 East" and "200 West," ending the confusing alpha-numeric code currently in use. This renaming is appropriate since the new groundwater remediation project has been named the 200-West Pump-and-Treat System. The TPA and decision documents can refer to the prior alpha-numeric names parenthetically for the units prior to consolidation.

Response to Comment 8.14: The Parties have decided to keep the existing numerically named groundwater operable units. The existing operable units have a well-defined scope based on contaminant plumes. The scope of the final remedy for the 200-ZP-1 groundwater operable unit cannot include that of the 200-UP-1 groundwater operable unit through a name change, but rather requires a Record of Decision Amendment to the 200-ZP-1 Record of Decision. Since the east area groundwater operable units generally flow in different directions and have been tracked according to their source areas (200-BP-1 for B Plant and 200-PO-1 for PUREX), the Parties have decided to retain the numerically named operable units for east as well. However, whenever possible the Parties will refer to remediation of these units as either the 200 East Area or 200 West Area groundwater remediation projects to help clarify to stakeholders and the public which remedial actions are being described.

Comment 8.15 Given existing statutory and regulatory definitions, the Tri-Party agencies should not redefine words already defined in regulations and/or statutes (e.g. "facility").

Response to Comment 8.15: It is not general practice to redefine terms that are already defined in statutes or regulations. In this case, however, the term "facility" is a very common word used regularly at the Hanford Site to describe individual structures. The definition of "facility" in the Hanford Facility Dangerous Waste Permit is very broad and means the entire Hanford Site. The Parties believe that it is necessary to clarify the meaning of the term as it is used in Section 8 of the Action Plan since the Section 8 meaning of the term is different than the permit and regulatory definitions. The definition only applies to the use of the term in Section 8 of the Action plan. The original Tri-Party Agreement already had redefined the term "facility" as it was used in Section 8 of the Agreement. The revision to the definition more accurately represents the common usage.

COMMENTER 9: Mike Conlan

Comment 9.1: I am continually amazed at the lack of concern the USDOE shows towards the Hanford facility and the very toxic substances that exist there.

Cleanup all the waste including ALL the "remote-handled" transuranic waste – not just the more recent poison. ALL OF IT!!

Building a nuclear plant next to a huge river was idiotic, leaving any nuclear waste to sift into the ocean is beyond stupid. Mount St. Helen blew volcanic ash around the world, but spreading radioactive water from Hanford is another thing.

Instead of all these $billions on killing Afghanis etc., our resources should be used to cleanup our own mess, and then help cleanup the other nuclear messes – nobody else will.

Response to Comment 9.1: The Parties are committed to cleaning up Hanford. For over twenty years, the Parties have worked with the Tribal Nations, State of Oregon, stakeholders and the public to identify Hanford cleanup priorities and conduct cleanup actions needed to protect human health and the environment.

Comment 9.2: NO MORE WASTE TILL HANFORD IS CLEAN !!

Response to Comment 9.2: Currently, Hanford is receiving no offsite waste except for what was decided in a court settlement agreement between the Department of Energy (DOE) and the State of Washington in 2006. To view this agreement, go to http://www.hanford.gov/orp/uploadfiles/settlement-agreement.pdf

COMMENTER 10: John and Pamela Bigas

Comment 10.1: I feel this comprehensive, geographic approach for the Central Plateau cleanup is a step in the right direction. The most dangerous "fires" must be addressed first, the river waste! I hope and pray you and your team accomplish your goal. I worry about where these wastes are going to finally be stored; if the science has been perfected to do what needs to be done; if the nation's resolve (money) will be given in a timely manner, or if a attitude of non-cooperation and a power struggle between agency elite result in a 9/11 type outcome.

The pg. 3 fact sheet overview proposed TPA changes and proposed Operable Units and Milestones looks great. I hope the feasibility study and additional technologies report turn out well or this document might be worthless.

Response to Comment 10.1: Thank you for your comments. The changes made to the Tri-Party Agreement (TPA) represent the Parties' best efforts to comprehensively address cleanup of soil waste sites, facilities, and groundwater on the Central Plateau. The TPA has milestones and a new path forward to guide and direct the pace and progress of cleanup and to ensure protection of human health and the environment.

If you are interested in learning more about Hanford cleanup goals, progress achieved, technical challenges that remain and how future decisions will be made, The *Hanford Site Cleanup Completion Framework* (www. hanford.gov/?page=708) provides a high-level and comprehensive overview of Hanford cleanup at a given point in time.

COMMENTER 11: Ira Johnson

Comment 11.1: You have several facilities such as U plant, T Plant, B Plant and Purex. Why not use them to store hazardous waste.

Response to Comment 11.1: The U Plant, T Plant, B Plant, PUREX and REDOX canyons have been storing equipment contaminated with hazardous substances for many years. The final Record of Decision for the U Plant (221-U Facility) followed the spirit of the Canyon Disposition Initiative by making productive use of the robust concrete structure. It allowed contaminated equipment already in the building to be disposed of in the remaining structure as part of the remedy. For future decisions, the Parties will consider remedial alternatives that bring other Hanford waste into the other four canyons for disposal along with the contaminated equipment already in those facilities. For example, special wastes containing technetium-99 or carbon-14 whose disposal at ERDF is constrained by total inventory limits could be stored or grouted and disposed of in the robust canyon structures.

COMMENTER 12: Dale Engstrom

Comment 12.1: First of all, congratulations for the addition of a milestone to address vadose zone contamination. The vadose zone, as the sources of contamination that will impact groundwater and eventually the river, is in my opinion the most overlooked problem at Hanford to this point. The creation of a vadose zone operable unit is a good initial step. There are a couple of important points that should be made.

Response to Comment 12.1: The Parties appreciate your feedback and support for the increased focus on vadose zone cleanup.

Comment 12.2: There have been plans announced to hold a vadose zone technology forum and to form a vadose science center at Hanford to address similar problems across all of the western DOE facilities. The problem with these plans is the perception that only technologies delivered by DOE or PNNL or one of the contractors will be considered. There are proven technologies currently in use for removal of radionuclides and other chemicals from soils that may never be considered. May I suggest that outside technology providers should be sought, and these outside technologies be considered for vadose zone remediation.

Response to Comment 12.2: DOE plans to evaluate available treatment technologies from DOE and non-DOE sources and vendors. The technology screening to be included in RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS) & Remedial Investigation/Feasibility Study (RI/FS) work plan (TPA milestone M-015-110A) will include evaluation of technologies outside the DOE complex. Outside vendors were asked to provide input in the past and will continue to be solicited for their input to help identify remediation technologies. To begin this process, a Deep Vadose Zone Technology Forum was held July 20-21, 2010. It focused on identifying and organizing critical challenges associated with the deep vadose zone beneath the Central Plateau with the goal of ensuring technologies are available to address deep vadose zone contaminants and protect groundwater. Periodic updates on progress will be provided to Tribal Nations and members of the Hanford Advisory Board. Information will also be made available through DOE's website at http://www.Hanford.gov/ .

Comment 12.3: *S*econd, while appropriate technologies are being investigated, rather than stalling the vadose zone remediation process while the investigation occurs, thorough characterization of vadose zone contamination should be performed at the highest priority and budget allocation possible. Then, once the appropriate technologies are chosen, remediation of well defined contaminated zones can begin without delay

Response to Comment 12.3: While technology development initiatives are unfolding, characterization for some 200-DV-1 wastes sites, previously identified in the *Supplemental RI/FS Work Plan for the 200 Areas Central Plateau Operable Units* (DOE/RL-2007-02), is planned to be performed during fiscal years 2011 and 2012. Any necessary additional characterization will need to be included in the 200-DV-1 RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) & Remedial Investigation/ Feasibility Study (RI/FS) work plan (TPA milestone M-015-110A). The plan for the deep vadose zone operable unit will include concurrent characterization and treatability testing.

COMMENTER 13: Tom Carpenter

Comment 13.1: Shifting RCRA-scope activities under CERCLA should not occur. First the State of WA needs to retain jurisdiction and not cede jurisdiction to EPA. Secondly, DOE should not be regulating

itself, as it would under current proposals. Third, RCRA has better accountability and public participation requirements than CERCLA.

Response to Comment 13.1: The comment describes "Shifting RCRA-scope activities under CERCLA" and expresses concern about Ecology ceding jurisdiction to EPA. While Ecology retains corrective action jurisdiction over all past-practice units, the TPA changes do shift the designation of some units:

- The TPA currently divides past practice units between the RCRA and CERCLA past practice (called RPP and CPP, respectively) processes. The TPA changes do not affect some of the units currently designated for CPP (i.e., leaves them in the CPP process).
- The TPA changes reassign some units from the RPP process to a joint RCRA-CERCLA past practice (R-CPP) process. These RPP units will continue to be subject to RCRA corrective action authority and Corrective Action Decisions (CADs) will be issued along with CERCLA RODs. None of the RPP Operable Units are being re-designated as CPP Operable Units. Some of the waste sites that were in the RPP operable units are being transferred to CPP operable units. However, there are many more waste sites in CPP operable units moving to R-CPP operable units than from RPP to CPP operable units.
- The TPA changes reassign some units from the CPP to the joint R-CPP process.

Ecology currently incorporates TPA requirements for both CPP and RPP units into the Hanford Facility RCRA Permit via the Permit Condition II.Y. Upon finalization of the Tri-Party Agreement change packages and the proposed permit modification, this will also be true for R-CPP units. Ecology uses the remedial action process identified in the TPA Action Plan to satisfy corrective action requirements. The proposed permit modification and TPA changes will not alter the regulatory framework for CERCLA remedial actions and RCRA corrective actions. The state will apply corrective action by issuing CADs for R-CPP past practice units. The CAD will satisfy the corrective action requirements of the Dangerous Waste Regulations, WAC 173-303-64620(4), which require that corrective action be consistent with specified requirements of the Model Toxics Control Act's implementing regulations (including MTCA's cleanup standards). Issuing CERCLA RODs along with RCRA CADs ensures that regulatory authority is available to address radionuclide contamination.

The requirements for public comment are different (not necessarily "better") under the state Hazardous Waste Management Act (HWMA) and Dangerous Waste Regulations, compared to CERCLA public comment requirements. The Tri-Parties considered these differences when they approved the Hanford Community Relations Plan. Strictly speaking, because the TPA (as a corrective action order) is already incorporated into the Hanford Facility RCRA Permit, there is no requirement for an independent comment period under the permit if a comment period under the TPA is already provided. See WAC 173-303-830 Appendix I.N.5 (modification or amendment of a corrective action order issued pursuant to MTCA when the MTCA public participation requirements have already been met and the order has already been incorporated into the permit is a Class 1 modification, with no comment period); see also, WAC 173-303-830(d)(ii). However, the Parties have nevertheless elected to provide a 60-day comment period under the TPA commensurate with a Class 3 modification.

Comment 13.2: I support the effort to address pre-1970 TRU cleanup efforts, and to have those efforts ratified in the Tri-Party Agreement. I am concerned that the deadlines for shipment to WIPP are set for five years after WIPP is scheduled to close. This is a serious disconnect. Another disconnect is the lack of enforceability – no binding schedule for pre-70 TRU removal, from the soil. DOE should be required to seek budget for this activity, and not rely on DOE to "behave". Don't assume that the plutonium does not migrate.

Plutonium is for all intents & purposes relevant to human understanding, forever. Act accordingly.

Response to Comment 13.2: The pre-1970 burial grounds and other waste sites that contain transuranic contaminants are addressed by the change package. The pre-1970 burial grounds are included in the 200-SW-2 operable unit. There are two interim milestones for the pre-1970 burial grounds: the M-015-93A milestone which calls for the submittal of a RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study work plan for the 200-SW-2 operable unit by 12/31/2011 and milestone M-015-93B which requires submittal of a RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study report and a Proposed Corrective Action Decision/Proposed Plan for the 200-SW-2 operable unit by 12/31/2016. The compliance date to complete the cleanup of this operable unit is September 30, 2024.

The Parties held a Hanford Advisory Board Committee of the Whole meeting October 5 (public invited) and will conduct regional public meetings to get early input on cleanup of these burial grounds. The Parties previously conducted a public workshop on some of the other waste sites and expect to hold a 30-day public comment period in March 2011 on a document (the 200-PW-1/3/6 and CW-5 Proposed Plan) that evaluates and identifies a preferred alternative to clean up waste sites that contain transuranic contaminants.

The M-91 milestone was revised to administratively align with the 2030 date in the current Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit.

Additional milestones will be developed as the CERCLA process on this operable unit progresses. Plutonium migration will be addressed with sound science and appropriate conservatism to assure protection of human health and the environment. Once cleanup decisions are made and documented in a Record of Decision, the TPA will be revised to include appropriate commitments. DOE will request funding to complete the required remediation actions.

COMMENTER 14: Steven Gilbert

Comment 14.1: I would support a meeting on values and ethics about the future of Hanford.

Response to Comment 14.1: The Parties look forward to ongoing public dialogue and appreciate agenda topics for future meetings. The Hanford Events Calendar (www.hanford.gov/) contains information on public involvement opportunities, including upcoming public meetings and workshops.

COMMENTER 15: Ken Niles, Oregon Department of Energy

Comment 15.1: Thank you for the opportunity to review *the Proposed Changes to the Tri-Party Agreement (TPA) for Central Plateau Cleanup Work (TPA Change Packages)*. We appreciate efforts over the past several months by the Tri-Parties to engage Oregon in preliminary discussions on this topic.

Response to Comment 15.1: The Parties appreciate the continuous dialogue and feedback this past year from the State of Oregon on the *Central Plateau Cleanup Completion Strategy*. The proposed changes to the TPA reflect your input.

Comment 15.2: In general, we agree with many elements of this change package. We support the geographic approach to Central Plateau cleanup and are pleased that plans for cleanup of soils,

facilities and groundwater will be better integrated. We are pleased that the 2024 milestone to complete remedial actions for all non-tank operable units within the Central Plateau is not delayed. While we appreciate that the Tri-Parties have agreed to milestones for the demolition of U Canyon and the construction of an associated barrier, this is not a high priority for Oregon. If there are funding challenges during the time in which this work would be conducted, there may well be other work which we would consider to be of higher priority.

We do not intend to comment at length on the number of administrative and regulatory process changes that are proposed.

Response to Comment 15.2: The schedule proposed in the change package to remediate the U Plant canyon (221-U Facility Record of Decision) has construction of the remedy being completed by September 30, 2021. The Tri-Parties believe this is the latest the remedy can be constructed and still serve, based on experience, to help develop and evaluate potential remedies for the other canyon buildings. However, if the Tri-Parties decide it is a priority to demonstrate the cleanup of an entire geographic zone in the 200 Area, then the U Plant remediation schedule may be accelerated to meet this goal.

Comment 15.3: There are two elements to this proposed change package which can be especially important to the Hanford cleanup - the new focus on deep vadose zone contamination, and the Agreement in Principle (AIP) to address waste leaked from Hanford's single-shell tanks. Both, however, need additional specifics and milestones to ensure that contaminants which pose the highest risk are sufficiently addressed.

The recent draft Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS) clearly illuminated the fact that contaminants which now reside within the deep vadose zone pose a high future risk and therefore must be remediated. The creation of a new operable unit to focus on Hanford's deep vadose zone is a good first step.

However, merely creating a new operable unit and spending the next two years developing a work plan is not sufficient unless the work results in a comprehensive characterization of the deep vadose zone contamination and supports an aggressive and creative approach to remediation. We strongly encourage the Tri-Parties not to be limited by technologies or ideas that were developed only at Hanford or within the DOE complex. We encourage efforts to reach out to the broader technical community worldwide to find innovative technologies to effectively deal with Hanford's subsurface contamination.

Response to Comment 15.3: The Parties appreciate your feedback and support for the increased focus on deep vadose zone cleanup.

DOE is leveraging investments from different organizations working in basic science, applied research, and site cleanup activities associated with the deep vadose zone. While the full scope of the activity and the available resources are still under development at this time, DOE is committed to utilizing expertise from agency-wide science and technology activities, the national laboratories, universities, and private companies to work in collaboration with the Parties, site contractors, stakeholders and the public to address the deep vadose zone contamination at Hanford. The integration of these activities is directed towards bringing resources of many organizations to provide viable remedial technologies and

strategies for addressing contaminants in the deep vadose zone. This cooperative strategy is designed to minimize stove pipes, avoid duplication of efforts, maximize resources, and facilitate development of the scientific foundation needed to make sound and defensible remedial decisions.

The Parties recognize that the contamination in the deep vadose zone must be addressed and have established the Deep Vadose Zone Operable Unit (200-DV-1 OU). The Parties will use a systematic approach to the 200-DV-1 OU. A RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS) & Remedial Investigation/ Feasibility Study (RI/FS) work plan (TPA milestone M-015-110A) for the 200-DV-1 OU is required. The work plan will include technology screening that identifies technologies applicable for characterization, treatment and monitoring of deep vadose zone contaminants. DOE began this screening process by holding a Deep Vadose Zone Technical Forum on July 20-21, 2010. DOE will provide periodic updates on progress to Tribal Nations, the Hanford Advisory Board, the Oregon Hanford Cleanup Board and State of Oregon, and in other appropriate public forums. Information will also be made available through DOE's website at www.Hanford.gov/ .

Comment 15.4: We have some of the same concerns with the AIP to address Hanford's leaked tank waste. The AIP only generically addresses the need to investigate soil contamination beneath and surrounding Hanford's single-shell tanks. Like with the deep vadose zone elsewhere on the site, the extent of contamination in the soil from past single-shell tank leaks, overflows and discharges is largely unknown. In comments that the State of Oregon provided on the draft TC&WM EIS, we indicated that high concentrations of contaminants that exist in the soil within and beneath Hanford's tank farms should be remediated, as the analysis already demonstrates that these past releases and leaks contribute significantly to the long-term impacts to the groundwater. Without sufficient characterization however, it is not possible to know what areas need remediation.

We do support the condition in the AIP that the investigation and remediation of soil contamination caused by leaks/releases from the single-shell tanks is coordinated with actions taken elsewhere at Hanford to investigate and remediate deep vadose zone contamination. We believe this coordination is absolutely essential.

We look forward to continuing to work with DOE to clean up the Central Plateau in ways that are protective, effective and economical.

Response to Comment 15.4: The AIP signifies the Parties' agreement to discuss cleanup decisions on the contaminated soil underlying the single-shell tank farms and to coordinate with other deep vadose zone investigation and remediation on the Central Plateau. These discussions will take place following finalization and signing of the Consent decree [Washington vs. Chu, case No. 08-5085 FVS].

From July 29, 2010 Oregon Letter on *the Proposed Tri-Party Agreement (TPA) Changes for Mixed Low-Level Waste and Transuranic Mixed Waste*.

Comment 15.5: We are also concerned that this current proposed change package ignores the pre-1970 burial grounds, which are known to have significant quantities of waste that if generated today would be considered transuranic waste. We expect that there are areas of significant concentration of transuranic-type waste in various locations within the pre-1970 burial grounds. We recommend that the Tri-Parties agree to a schedule to identify and characterize those "hot spots" and develop a plan for how to mitigate the risks posed by these wastes.

Response to Comment 15.5: The pre-1970 burial grounds and other waste sites that contain transuranic contaminants are addressed by the change package. The pre-1970 burial grounds are included in the 200-SW-2 operable unit. There are two interim milestones for the pre-1970 burial grounds: the M-015-93A milestone which calls for the submittal of a RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study work plan for the 200-SW-2 operable unit by 12/31/2011 and milestone M-015-93B which requires submittal of a RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study report and a Proposed Corrective Action Decision/Proposed Plan for the 200-SW-2 operable unit by 12/31/2016. The compliance date to complete the cleanup of this operable unit is September 30, 2024.

The CERCLA remedy evaluation and decision process will consider a wide range of remediation alternatives, from "no action" to complete removal, and several alternatives in between. "Hot spot" removal will likely be considered as part of one of the alternatives.

The Parties held a Hanford Advisory Board Committee of the Whole meeting October 5 (public invited) and will conduct regional public meetings to get early input on cleanup of these burial grounds. The Parties previously conducted a public workshop on some of the other waste sites and expect to hold a 30-day public comment period in March 2011 on a document (the 200-PW-1/3/6 and CW-5 Proposed Plan) that evaluates and identifies a preferred alternative to clean up waste sites that contain transuranic contaminants.

COMMENTER 16: Gerry Pollet, Heart of America Northwest

Comment 16.1: Heart of America Northwest (HoANW) appreciates the opportunity to provide input on the proposed changes to the Tri-Party Agreement. This letter is meant to transmit our specific comments and identify general areas of concern in the proposed changes.

Geographic Approach to Central Plateau Cleanup. Hanford's Central Plateau contains waste in unlined ditches, trenches/ponds, high-level waste tanks, and in landfills. In addition the Central Plateau also has facilities, large Plutonium and Uranium extraction facilities called "canyon" buildings, which is surrounded by an "outer area" which includes waste discharge sites. Heart of America Northwest supports the new geographical approach to the Central Plateau Cleanup. USDOE's previous plan was to only have three general decision units for all the diverse types of cleanup, and Heart of America Northwest found that plan insufficient.

The new approach has geographically-based decision units that include: two groundwater decision units, a unit for the deep soil contamination. However, HoANW supports a cleanup plan that integrates cleanup of soils, facilities and groundwater.

Response to Comment 16.1: Thank you for your comments. The changes made to the Tri-Party Agreement (TPA) represent the Parties' best efforts to comprehensively address cleanup of soil waste sites, facilities, and groundwater on the Central Plateau. The TPA milestones provide a path forward to guide and direct the pace and progress of cleanup.

Comment 16.2: Incorporated in the Central Plateau cleanup changes is a huge exception to the 2024 milestone to complete cleanup of all "non-tank farms" waste sites in the Central Plateau. The proposal delays completion of cleanup and demolition of the massive contaminated "canyon" facilities (PUREX

Plant, Plutonium Finishing Plant, REDOX) by removing them from the 2024 milestone. The 2024 milestone remains an important driver for Central Plateau cleanup. Additionally, HoANW does not support the 5 year delay to the milestones to complete investigation and propose cleanup plans for the soil sites.

- Heart of America Northwest supports the new geographical approach to Central Plateau Cleanup;
- Cleanup plans should integrate cleanup of soils, facilities and groundwater;
- Do not delay the completion of the investigations and proposal of work plans for contaminated soil sites in the Central Plateau;
- Maintain the 2024 milestone for completion of all non-tank farm operable units and do not exempt the canyon facilities - this milestone is the major driver for cleanup on the Central Plateau and should not be compromised.

Response to Comment 16.2: A small percentage of the total waste sites in the Central Plateau were assigned to operable units that include the three decommissioned canyon buildings (B Plant, REDOX and PUREX). Remedial investigation and feasibility study activities are planned to start for these buildings and waste sites in the near future. The Parties attempted to limit the number of waste sites included in the canyon-based operable units. The remedial design/remedial action schedule for these operable units will be established through the TPA process after CERCLA documents have gone out for public comment, comments have been considered and responded to and remedies selected. It is possible that some of the waste sites near the canyons may not be cleaned up to meet the M-016 major milestone date (September 30, 2024). However, if interim response actions are determined to be necessary to protect human health and the environment prior to final cleanup of the canyon operable units, cleanup actions would be implemented. DOE and the lead regulatory agency would make those decisions.

DOE is required to submit a change package proposing a completion date for major milestone M-85-00 to complete facility response actions by September 30, 2012 (M-085-01). Cleanup of the canyon facilities is not considered to be as time-critical as cleanup of wastes sites, because contaminants are currently contained in the buildings that are maintained through surveillance and maintenance activities. It is DOE's goal to complete facility cleanup as soon as possible, however, the complexity of the issues associated with the canyon facilities and the interfaces and interferences with other activities on the Central Plateau may impede completing remediation of the canyons and associated waste sites by 2024.

Comment 16.3: ***New Deep Vadose Zone Operable Unit***

The Tri-Party Agencies' recognition of the importance of deep vadose zone contamination, as manifest in the new operable unit in this change package, is a promising first step towards cleaning up this important aspect of Hanford's contamination. However, the milestones laid out in the Tri-Party Agreement lack specific goals and schedules for remediating the contamination. Deep vadose zone contamination on site at Hanford should be addressed in concert with tank farm leaks and other contamination investigations. Heart of America Northwest supports a comprehensive cleanup approach to contamination throughout the entire soil column and integration of the cleanup of soils, facilities and groundwater.

Response to Comment 16.3: The Parties recognize that the contamination in the deep vadose zone must be addressed and have established the Deep Vadose Zone Operable Unit (200-DV-1 OU). The Parties will use a systematic approach to the 200-DV-1 OU. A RCRA Facility Investigation/ Corrective

Measures Study (RFI/CMS) & Remedial Investigation/ Feasibility Study (RI/FS) work plan (TPA milestone M-015-110A) for the 200-DV-1 OU is required. The work plan will include technology screening that identifies technologies applicable for characterization, treatment and monitoring of deep vadose zone contaminants. DOE began this screening process by holding a Deep Vadose Zone Technical Forum on July 20-21, 2010. DOE will provide periodic updates on progress to Tribal Nations, the Hanford Advisory Board, the Oregon Hanford Cleanup Board and State of Oregon, and in other appropriate public forums. Information will also be made available through DOE's website at www.Hanford.gov/ .

The establishment of the deep vadose zone operable unit is expected to bring about a centralized focus on deep vadose zone technologies and remedies, and is also expected to enhance coordination with the cleanup activities for other waste sites that have groundwater protection concerns, including the contaminated soils underlying the tank farms. At a minimum, the Deep Vadose Zone operable unit and tank farm soil cleanup activities will share information on investigation and remedial alternatives. There may be additional interactions pending the outcome of further discussions as described in the Agreement-in-Principle (AIP) that was included with the Tentative Agreement on a path forward for making cleanup decisions on the contaminated soil underlying the tank farms.

Comment 16.4: Currently, all 44 of the waste units included in the 200-DV-1 OU are non-tank farm units and are subject to the 2024 completion date as outlined in M-016-00. The few milestones laid out in the TPA for the new 200-DV-1 OU do not appear to put the OU on track for completion by 2024. M-015-110A requires a work plan that "shall include technology screening that identifies technologies applicable for characterization, treatment, and monitoring of deep vadose zone contaminants" by September 30, 2012. The proposed Field Research Center for deep vadose zone contamination is still theoretical, yet the Department of Energy has to have identified technologies within two years of the proposed launch (October 2010), and characterize the contamination and determine a workplan for cleanup three years after that. Then, the Department of Energy has just nine years to complete cleanup of 44 unique waste sites with deep vadose zone contamination, but there are no milestones included in this change package outlining an aggressive schedule to complete this work.

Heart of America Northwest is deeply concerned that the deep vadose zone waste units' remedial actions will not be complete by 2024 as legally required. Again, milestones outlining the entire cleanup process need to be identified now with enforceable due dates, so that the Department of Energy is held accountable to complete the remediation of the deep vadose zone and all other non-tank farm units by September 30, 2024. The Department of Energy must demonstrate real commitment, procure real funding and complete the remedial actions on schedule.

Response to Comment 16.4: The Parties are currently in the planning phase to identify what is needed to meet the technology development/deployment, characterization, testing, and remedial action needs. DOE understands that the legal commitments established by existing and new TPA milestones set a schedule that will require constant attention and diligence to accomplish as well as efficient use of the resources available. The RFI/CMS & RI/FS work plan will describe the activities and schedule for additional characterization, testing, and evaluation of remediation technologies to meet the follow-on TPA milestone to submit the Corrective Measures Study & Feasibility Study Report and Proposed Plan**/**Proposed Corrective Action Decision (M-015-110B).

Cleanup of the deep vadose zone will remain a high priority for funding and resources. Many of the same technologies will most likely be applicable to multiple sites, which is expected to improve the efficiency of implementation. Extensive experience that has been gained in groundwater and soil

remediation at Hanford and at other locations will provide a good basis to develop approaches to expedite work in the deep vadose zone cleanup. Additional milestones will be developed by the Tri-Parties as needed throughout the decision and remediation process to ensure that the work is conducted in a timely manner.

Comment 16.5: Previously, decisions for these waste units would have covered only the shallow vadose zone below the surface of the waste sites or facilities. At the workshop in Portland on June 23, 2010, the public was told that the new deep vadose zone operable unit's waste sites are integrated from the surface through the deep vadose zone; Heart of America Northwest applauds this intent to integrate. However, this is not apparent in the TPA change package documents that were presented to the public for comment, and Heart of America Northwest wants assurance that the remedies for the proposed waste sites in the 200-DV-1 OU will be considered from top to bottom.[1] ([1] E.g., the setting of cleanup action or remedial action levels must consider the results of actual field investigations of deep contamination as well as near surface contamination in order to be protective of groundwater (and surface waters, since the groundwater flows to the River). The combined releases have to be considered in setting protective cleanup levels)

Response to Comment 16.5: The deep vadose zone portion of soil waste sites was always included in the scope of the previous Central Plateau operable units. However, the creation of the Deep Vadose Zone operable unit reflects the emphasis the Parties have placed on developing specialized technologies and remediation approaches to deal with the deep vadose zone contamination. The Parties specifically chose to keep the entire waste site, from ground surface to the water table in the Deep Vadose Zone operable unit. Waste sites will be evaluated across the entire soil column to select remedies based on protection of human health, ecological receptors, and groundwater protection. Waste sites that have contaminants near the surface as well as in the deep vadose zone may have more than one remedial technology applied to address the contamination. Implementation of the selected components of the remedy may occur at different times to permit a more efficient use of resources.

Comment 16.6: The Tri-Party Agencies did an insufficient job presenting the new 200-DV-1 OU to the public, giving the impression that the Single Shell Tank waste units were currently proposed to be included in the operable unit. Interestingly, those units are the only ones not subject to the 2024 deadline, and, they are the poster child for deep vadose zone contamination. In the future, Heart of America Northwest requests that the agencies more thoroughly present significant changes to the TPA, making explicit what waste units are affected.

Response to Comment 16.6: Thank you for your feedback. In preparing future materials for the public, the Parties will better communicate and clarify information not included as part of the decision. We regret any confusion this may have caused.

Comment 16.7:

- The agencies should develop a comprehensive cleanup approach to contamination throughout the entire soil column and integrate the cleanup of soils, facilities and groundwater;
- Heart of America Northwest is concerned that the 44 waste units that comprise 200-DV-1 OU are extremely dissimilar; and, that creating one workplan for all 44 units will result in compromised cleanup;
    - The BC-1 (BC Cribs and trenches) unit should not be delayed from its current TPA RI/FS and work schedules by inclusion in the DV-1 Operable Unit. USDOE has dragged its feet on investigating and characterizing cribs and trenches, and should not be receiving a delay for this work. This unit is an example of why work plans and work should be required for

specific similar units within this grouping of 44 units, rather than deferring all to one work plan and set of dates.

- As has been done with other units, within the unit all similar geographic and types of sites should be grouped and have schedules. This would avoid the most difficult sites from setting the schedule for all 44 units.

Response to Comment 16.7: The Parties established the Deep Vadose Zone Operable Unit (200-DV-1) to provide for a systematic approach to the challenges presented by contamination in the deep vadose zone. The 44 waste sites included in 200-DV-1 operable were selected from the previous Tank Waste (200-TW-1/2) and Process Waste (200-PW-5) operable units. These waste sites were grouped together for investigation and decision-making purposes, because they have similar contaminant characteristics and groundwater risk drivers requiring specialized remediation approaches to deal with the deep vadose zone contamination. There are some differences in site construction and in the nature and extent of contamination; however, these sites represent a logical grouping for the Deep Vadose Zone Operable Unit. The RFI/CMS & RI/FS work plan, as well as the CMS/FS report and Proposed Plan, will address the full range of sites within the operable unit and ensure that the contaminants at each site are addressed.

The cribs and trenches in the 200-BC-1 operable unit are not part of the Deep Vadose Zone operable unit (200-DV-1 OU). The 200-BC-1 operable unit will be addressed with the 200-WA-1 operable unit in a Feasibility Study report and a Proposed Plan that are to be submitted by June 30, 2013 (M-015-91B). The Parties acknowledge that significant work already was completed on investigation, testing, and evaluation of the BC Cribs and Trenches. The information resulting from this work will be used to help develop the 200-WA-1/200-BC-1 feasibility study/proposed plan. This experience may also provide valuable input to activities required for deep vadose zone remediation.

Comment 16.8:

- To complete 200-DV-1 OU's remedial actions by 2024 as legally required through TPA M-016-00, the Department of Energy will need to be held accountable to a set of aggressive, comprehensive & enforceable milestones. The milestones for completion of the cleanup of the deep vadose zone operable unit waste sites should be laid out now to ensure compliance with the September 30, 2024 deadline;
- The Department of Energy must demonstrate real commitment to complete the deep vadose zone remediation for all non-tank farm sites by 2024 by procuring real and sufficient funding – this means that there should be a clear requirement to identify the funding needed and request it in annual budget submissions starting with FY 2011;

Response to Comment 16.8: All 200-DV-1 work plan schedules and interim milestones need to be consistent with M-16-00 milestone deadline. Interim milestones will be established following workplan development to establish enforceable requirements to implement 200-DV-1 OU cleanup actions by 2024. Budget requests to support these activities are required by the TPA.

Comment 16.9:

- Heart of America Northwest requests a written description of the 200-DV-1 Operable Unit that describes the claims that the waste units included in the operable unit will be considered and remediated as one unit from the surface to the groundwater;

Response to Comment 16.9: The operable unit includes the entire waste site, from ground surface to the water table in the Deep Vadose Zone operable unit. Waste sites will be evaluated across the entire soil column to select remedies based on protection of human health, ecological receptors, and groundwater protection. Waste sites that have contaminants near the surface as well as in the deep vadose zone may have more than one remedial technology applied to address the contamination. Implementation of the selected remedies may occur at different times to permit a more efficient use of resources. The creation of the Deep Vadose Zone operable unit re-affirms the high importance the Parties place on the need to develop specialized technologies and remediation approaches to address deep vadose zone contamination.

Comment 16.10:

- The Tri-Party Agencies did not do a sufficient job of describing the new 200-DV-1 OU to the public, which led to confusion and misconceptions that the scope of the work for the new OU included the Single Shell Tank farm units.

Response to Comment 16.10: As stated in Response to Comment 16.6, when preparing future materials for the public, the Parties will better communicate and clarify information not included as part of the decision. We regret any confusion or misperception this may have caused.

Comment 16.11: ***Delays to retrieval and treatment of Plutonium and otherTransuranic wastes buried at Hanford***
After 1970, USDOE was required to "retrievably store" Transuranic waste (TRU), instead of disposing of it in unlined trenches as it had been doing for decades. After being retrieved from storage, the TRU is to be sent to the Waste Isolation Pilot Plant (WIPP) in New Mexico for permanent disposal. Hanford workers are currently retrieving waste drums from storage ditches, preparing them for shipping, and sending shipments to the WIPP facility.

Heart of America Northwest is deeply concerned because the TPA change package allows USDOE to delay retrieval and treatment of highly toxic TRU waste. Instead of proposing legally enforceable milestones for cleanup of TRU waste, the TPA agencies propose non-binding "target dates" that will allow the agencies to delay cleanup indefinitely. Since USDOE has no obligation to set aside funding for cleanup with "target dates," the likelihood of further delays is great. Legally enforceable milestones are essential because storage barrels are corroding, waste is spreading, and any delay in retrieval increases the risk to cleanup workers and cost of eventual retrieval. Hanford is the most contaminated area in the western hemisphere and any delay in cleanup will further compromise the overall success of the cleanup effort and endanger the health of communities throughout the Northwest.

Response to Comment 16.11: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 16.12: Unless TPA milestones are stable and reliable, TPA agencies will be unable to develop adequate on-site treatment capacity. TPA agencies must recognize that without legally binding milestones requiring cleanup, private investors will be discouraged from investing in treatment and disposal capabilities and will be further discouraged by insufficient time to acquire investments and permits. A clear and enforceable cleanup schedule is critical to protecting the health of Hanford workers and the communities nearby.

Response to Comment 16.12: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 16.13: We are also concerned that shipments of TRU waste from Hanford are projected to be extended to 2035 even though the Waste Isolation Treatment Plant (WIPP) is legally bound to close by 2030 and could much close sooner. The TPA change package milestones should, at minimum, align with the WIPP closure schedule to ensure that all WIPP eligible waste is disposed of at WIPP. Since WIPP is the *only* repository authorized to receive and dispose of TRU waste, once it closes any remaining TRU waste at Hanford would be stranded in violation state and federal law. To prevent this, HoANW urges the agencies to require early shipment of TRU waste to minimize the risk of WIPP closing prior to all shipments being sent from Hanford.

Response to Comment 16.13: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 16.14: Failure to include requirement to retrieve Transuranic wastes (TRU) buried at Hanford before 1970: The TPA should include a specific commitment to retrieve TRU waste buried at Hanford before 1970. Though the term "transuranic waste" was not defined as such until 1970, as much as 1,033 kilograms of Plutonium were dumped into the soil before 1970 – enough to fuel 172 Nagasaki size atomic bombs. From the early 1940s to the early 1970s Plutonium was dumped into at least 55 sites, and at least 16 of these sites contain TRU waste that exceeds USDOE's own standard requiring geological disposal. The pre-1970 TRU waste poses an enormous risk to human health and the environment and the TPA agencies should require characterization, retrieval, treatment, and disposal milestone schedules be established.

Additionally, TPA agencies should require USDOE to request funding for the cleanup of pre- 1970 TRU to ensure that there is a capability to handle and process the pre-70 TRU. Cleanup efforts will be seriously hindered or delayed if USDOE does not have adequate funding for TRU cleanup.

- The agencies should establish legally enforceable milestones for cleanup of all TRU waste including all pre-1970 TRU waste;
- The agencies should require USDOE to request funding for TRU waste cleanup;
- The agencies should ensure that enforceable agreements are in place to guarantee a permanent disposal site for TRU waste;
- The agencies must reconcile the 2035 milestone with WIPP's 2030 closure date to ensure that all of Hanford's WIPP eligible waste actually goes to WIPP and none of it is stranded at Hanford.

Response to Comment 16.14: The pre-1970 burial grounds and other waste sites that contain transuranic contaminants are part of this change package. The pre-1970 burial grounds and other waste sites that contain transuranic contaminants are addressed by the change package. The pre-1970 burial grounds are included in the 200-SW-2 operable unit. There are two interim milestones for the pre-1970 burial grounds: the M-015-93A milestone which calls for the submittal of a RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study work plan for the 200-SW-2 operable unit by 12/31/2011 and milestone M-015-93B which requires submittal of a RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study report

and a Proposed Corrective Action Decision/Proposed Plan for the 200-SW-2 operable unit by 12/31/2016. The compliance date to complete the cleanup of this operable unit is September 30, 2024.

The Parties held a Hanford Advisory Board Committee of the Whole meeting October 5 (public invited) and will conduct regional public meetings to get early input on cleanup of these burial grounds. The Parties previously conducted a public workshop on some of the other waste sites and expect to hold a 30-day public comment period in March 2011 on a document (the 200-PW-1/3/6 and CW-5 Proposed Plan) that evaluates and identifies a preferred alternative to clean up waste sites that contain transuranic contaminants.

The M-91 milestone was revised to administratively align with the 2030 date in the current Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit.

Comment 16.15: ***Record of Decision Authorship*****.** The proposed TPA changes would allow DOE, instead of EPA, to draft Records of Decision (RODs) for cleanup actions under CERCLA. While EPA would still have to sign off on the final ROD, DOE would review the record and effectively choose a corrective action and write the ROD. Not only is this shift of responsibility illegal, it runs directly counter to public interest. Because it makes little sense to have DOE (the polluter) essentially regulate itself, Heart of America does not support this change.

The basis of our concern regarding this change is that, in preparing a draft for EPA approval, DOE can chose which part of the record to rely upon and which to disregard. The authority to make this kind of judgment has been properly delegated to the expert agency, the EPA, and cannot be given to DOE. If DOE effectively writes the RODs, there is little oversight of DOE action. As the polluter and the source of cleanup funds, DOE has a clear incentive to choose remedies that expedite cleanup and minimize costs. And while DOE professes to be dedicated to protection of health and the environment, the reality is that DOE has a number of interests to balance. EPA, on the other hand, is tasked only with protection of the environment. Rather than allowing DOE to essentially choose the cleanup path itself, EPA should retain its authority to pick remedies based on its own mission, not that of DOE.

In addition to our practical concerns, allowing DOE to draft the RODs is not permitted under CERLCA. EPA is the final decision-maker with respect to the selection of remedial actions at Hanford. CERCLA §120 requires that the EPA and the DOE jointly select a remedial action, but in the event that the two agencies are "unable to reach agreement on selection," the EPA is vested with ultimate decision-making power.[2] [[2] 42 USC § 9620(e)(4)(A)] Moreover, the DOE concedes that this is the case. The TPA requires RODs to be signed by the EPA,[3] ([3] TPA §7.3.8) and the Agreement in Principle specifies that, "in any event, EPA approval of Records of Decision would still be required in accordance with CERCLA §120."

EPA's authority to select remedial actions may not be delegated. Under CERCLA §120, "no authority vested in the EPA under this section may be transferred, by executive order of the President or otherwise, to any other officer or employee of the United States or to any other person."[4] [[4] 42 USC § 9620(g)] Thus no modification of the TPA that purports to reassign this responsibility will be valid.

In addition to CERCLA's clear directive that EPA write RODs, the Administrative Procedure Act also prohibits EPA from delegating authority to DOE. Agencies charged with rulemaking authority under the

APA must assure that final decisions must be based on reliable facts, and the decision-maker must evaluate the facts in the record for reliability.[5] [[5] *Kennecott v. U.S. EPA*, 780 Fed.2d 445, 458 (4th Cir. 1985)] Facts cannot be excluded from the record because an agency deems them unreliable; all information must be admitted and then evaluated for reliability at the decision-making stage.
As the final decision-maker in the remedy selection process at Hanford, EPA is the rulemaking agency. As such, EPA is required to base its decision on a complete and reliable record. The theory of rulemaking requires that all relevant information appear in the record *at the decisionmaking stage*, so DOE is not permitted to manipulate that record prior to the EPA's evaluation. Even information that is deemed unreliable by the DOE must be included for evaluation of reliability by the EPA, the rulemaking agency.

While a ROD provides a description of technical parameters and a consolidated summary of the rationale behind the choice of remedy, in no way does it represent a complete record. EPA is not permitted to simply sign-off on a ROD prepared solely by DOE. To fulfill its obligations as the rulemaking agency, EPA must evaluate a complete record, determine the reliability of facts, and consider alternative remedies. As mentioned above, there would be a clear conflict of interest for DOE to perform this duty because DOE would in effect be evaluating its own clean-up efforts at Hanford without any oversight. This self-policing would lead to a biased selection of a remedial action.

The agencies support the proposed change of ROD authorship by asserting that it will make the ROD drafting process more efficient. Because DOE is already involved in choosing a remedy and because DOE can dedicate more resources to the process, both EPA and DOE claim that handing over drafting responsibilities will increase efficiency. EPA's Dennis Faulk admitted at a June 24th workshop that he did not wish to expend the resources required to write initial ROD drafts as CERCLA. He further noted that "this is how it works" at many other sites around the country. However, in response to a question regarding EPA's review of DOE's drafts, Faulk stated that EPA does conduct a detailed review of DOE's work and has sufficient personnel to write the drafts themselves. If EPA does in fact have the ability to review the record and draft the ROD itself, it should do so. Alternatively, if EPA does not have the manpower to fulfill its obligations, the illegal delegation of power to DOE (the agency EPA is supposed to be regulating) is clearly improper.

Heart of America strongly urges the parties to retain the current structure in which EPA is responsible for drafting RODs. However, if DOE does assume some authority in the drafting process, we agree with the Hanford Advisory Board that the concerns of the public would be somewhat quelled if DOE drafts were subjected to public review and comment. Making drafts available for comment would add transparency to the process and provide some oversight for DOE actions.

Response to Comment 16.15 A number of commenters raised concerns about DOE writing the initial drafts of RODs. Therefore, the Parties agreed to revise the change form so it provides that EPA will write the draft ROD or it will be written jointly by EPA and Ecology, if Ecology is the lead regulatory agency. The lead regulatory agency in cooperation with DOE (and EPA if Ecology is the lead regulatory agency), will finalize the ROD.

The Parties provide opportunities to inform and involve Tribal Nations, State of Oregon, Hanford Advisory Board, stakeholders and the public before a proposed plan is released for public comment. These interactions are meant to elicit and consider their values in cleanup decisions. Responsiveness Summaries issued along with the decision document (record of decision, action memorandum) provide a record of how comments were considered.

After careful consideration of this and similar comments, the Parties decided that making the draft ROD available for public review would not be in the best interest of cleanup. The opportunity for public review and comment on the proposed remedy is at the proposed plan stage. Adding another review for the ROD would be redundant and could lead to delays in cleanup.

Comment 16.16*: RCRA & CERCLA.*
Corrective Action changes will result in less stringent cleanup standards. An additional concern about the proposed TPA changes involves the administering of corrective actions. This change involves the replacement of RCRA corrective actions for past practice units with CERCLA corrective actions, a shift that HoANW does not support. A primary purpose of corrective actions is to ensure full characterization of releases to the environment; as such characterization is necessary to define the nature and extent of contamination. We do not believe that corrective actions performed under CERCLA actions will be as complete and have cleanup levels as stringent as under RCRA corrective actions (i.e., particularly the characterization of the vadose zone beneath units subject to cleanup under the TPA).

The existing language in the TPA ensures compliance with WAC 173-303 regulations by requiring the Hanford Site (as the permitted facility) to incorporate and specify corrective actions within the Permit at the time of permit issuance. The proposed modifications, however, seem to run contrary to the purpose and intent of the TPA's instruction on RCRA/CERCLA integration:

> *"EPA and Ecology agree that when permits are issued to DOE for hazardous waste management activities … requirements relating to remedial action for hazardous waste management units under Part Three of this Agreement* ***shall be the RCRA corrective action requirements*** *for those units, whether that permit is administered by EPA or Ecology.*

Further, the proposed changes to corrective action implementation on the Hanford site are not supported by HoANW or the Hanford Advisory Board. The HAB articulated its displeasure with the move to CERCLA corrective action on June 4th by stating:

> *All corrective action requirements should be incorporated into the Hanford Facility Permit according to the requirements of the Washington Administrative Code 173-303-6462 (3) and -64630(3). These state rules ensure compliance with the Resource Conservation and Recovery Act (RCRA) and the Model Toxics Control Act, and guarantee the public certain rights (including under the State Environmental Policy Act and appeals). Joint decisions compliant with both RCRA and CERCLA processes should both be issued for those units regulated under both laws*.

Response to Comment 16.16: The comment states "This change includes the replacement of RCRA corrective action for past practice units with CERCLA corrective actions…." The actual changes being made are:

- The TPA currently divides past practice units between the RCRA and CERCLA past practice (called RPP and CPP, respectively) processes The TPA changes do not affect some of the units currently designated for CPP (i.e., leaves them in the CPP process).
- The TPA changes reassign some units from the RPP process to a joint RCRA-CERCLA past practice (R-CPP) process. These RPP units will continue to be subject to RCRA corrective action authority and Corrective Action Decisions (CADs) will be issued along with CERCLA RODs. None of the RPP

Operable Units are being re-designated as CPP Operable Units. Some of the waste sites that were in the RPP operable units are being transferred to CPP operable units. However, there are many more waste sites in CPP operable units moving to R-CPP operable units than from RPP to CPP operable units.

- The TPA changes reassign some units from the CPP to the joint R-CPP process.

The comment also states "corrective actions performed under CERCLA actions will [not] be as complete and have cleanup levels as stringent as under RCRA corrective action (i.e., particularly the characterization of the vadose zone beneath units subject to cleanup under the TPA)." The Parties respectfully disagree.

First, the state will still be making an independent corrective action decision under the permit modification and TPA changes. The state will make this decision in accordance with the corrective action requirements of the Dangerous Waste Regulations, WAC 173-303-64620(4), which require that corrective action be consistent with specified requirements of the Model Toxics Control Act's implementing regulations. These include MTCA's cleanup standards.

Second, as concerns the extent of characterization of contamination, the regulations for implementing CERCLA at 40 C.F.R. 300.430(d) state that: " The lead agency shall characterize the nature of and threat posed by the hazardous substances and hazardous materials and gather data necessary to assess the extent to which the release poses a threat to human health or the environment…" As regards concerns about CERCLA cleanup levels and the completeness of CERCLA cleanup actions, Paragraph 17 of the TPA expressly provides that the Parties intend that activities covered by Part Three of the TPA, which includes CERCLA Remedial Actions, will satisfy the corrective action requirements of the State HWMA and that MTCA shall be incorporated as appropriate as applicable or relevant and appropriate requirement. TPA Action Plan Section 5.4 also establishes the requirement for consistency between the RPP and CPP processes: "The corrective action process selected for each operable unit shall be sufficiently comprehensive to satisfy the technical requirements of both statutory authorities and the respective regulations."

Ecology will continue to incorporate RCRA (HWMA) corrective action into the Hanford Facility RCRA Permit via the Permit Condition II.Y. Ecology uses the remedial action process identified in the TPA Action Plan to satisfy corrective action requirements, with TPA requirements and schedules then incorporated into the Hanford Facility RCRA Permit to satisfy WAC 173-303-64620(3). The proposed incorporation approach is identical to the manner in which the TPA's corrective action requirements and schedules have been incorporated into the Hanford Facility RCRA Permit since the year 2000 (although the scope of this incorporation is now expanded to include incorporation of a final corrective action decision made under the framework of the TPA).

With respect to public comment, because the TPA (as a corrective action order) is already incorporated into the Hanford Facility RCRA Permit, there is strictly speaking no requirement for an independent comment period under the permit if a comment period under the TPA is already provided. See

WAC 173-303-830 Appendix I.N.5 (modification or amendment of a corrective action order issued pursuant to MTCA when the MTCA public participation requirements have already been met and the order has already been incorporated into the permit is a Class 1 modification, with no comment period); see also, WAC 173-303-830(d)(ii). However, the Parties have nevertheless elected to provide a 60-day comment period under the TPA commensurate with a Class 3 modification.

Finally, Ecology expects to make SEPA threshold determinations while developing CADs for R-CPP Units.

Comment 16.17: Proposed changes will negatively impact public involvement

In addition to the changes regarding corrective actions, we are concerned that proposed changes will impact the public involvement process of WAC 173-303-830/840 and limit public opportunities to challenge or seek modification of corrective action decisions in the future. Ecology's reservation of authority to review and impose corrective actions after completion of CERCLA actions will not afford the public the same opportunities for involvement as provided through the Dangerous Waste Regulations for RCRA modifications.

Response to Comment 16.17: Since the year 2000, TPA requirements and schedules for CERCLA past practice units (CPPs) have been incorporated into the permit by reference to satisfy the requirement that the permit specify corrective action in all contiguous areas of the Hanford facility. The manner of this incorporation is prospective, with the permit incorporating TPA requirements "currently in place…and in the future developed and approved under the HFFACO." This approach is taken so as to not create potential conflict between the permit and the TPA and not potentially conflict with CERCLA's public participation and timing of review provisions, which do not provide for a public appeal process comparable to that provided under WAC 173-303-830/840. Because a CERCLA decision will be made concurrent with a state corrective action decision under the CAD/ROD approach to ensure regulatory authority over radionuclide contamination, the CAD/ROD approach employs the same manner of incorporation. The public will continue to be provided with an opportunity to review and comment on proposed remedial and corrective actions and alternatives, and the Parties must consider and respond to each significant comment before selecting a final remedial or corrective action.

Outside of Hanford, Ecology typically satisfies corrective action through the conditions of an order or consent decree issued under the independent legal authority of MTCA. Just as TPA requirements are incorporated into the Site-wide Permit through Condition II.Y, the requirements of a MTCA order or decree are incorporated by reference into a hazardous waste facility permit. Ecology takes the position that there is no appeal opportunity of the underlying requirements of a MTCA order when those requirements are incorporated into a hazardous waste facility permit. *See* WAC 173-303-64630(3) ("In the case of facilities seeking or required to have a permit under the provisions of this chapter the department will incorporate corrective action requirements imposed pursuant to the Model Toxics Control Act into permits at the time of permit issuance. *Such incorporation will in no way affect the timing or scope of review of the Model Toxics Control Act action.*") (emphasis added); *see also*, Ecology Corrective Action Program Description, Department of Ecology (January 7, 1994) at 44. In Ecology's view, Site-wide Permit condition II.Y offers no lesser opportunity for public participation (including appeal) of a TPA corrective action condition than is available with respect to a MTCA condition incorporated into a typical hazardous waste facility permit issued outside of Hanford. As indicated above, under WAC 173-303-830, modification or amendment of a corrective action order issued pursuant to MTCA when the MTCA public participation requirements have already been met and the order has already been incorporated into the permit is a Class 1 modification, not a Class 2 or 3 modification. WAC 173-303-830 Appendix I.N.5.

As also indicated above, there is no "reservation" of corrective action authority under this proposal. The state will still be making an independent corrective action decision under the permit modification and TPA changes. The state will make this decision in accordance with the corrective action requirements of the Dangerous Waste Regulations, WAC 173-303-64620(4).

Comment 16.18: ***Public Involvement Comments***

The Tri-Party Agencies demonstrated exemplary willingness to work with stakeholders to schedule and design the public workshops in Portland and Seattle on this change package. Participants at the workshops gave feedback indicating that this type of meeting was useful and informative for them, and Heart of America Northwest found the workshops to be ideal considering the scope of changes under comment and the recent conclusion of an extended comment period on the draft *Tank Closure and Waste Management Environmental Impact Statement.* Heart of America Northwest recognizes the value of having senior officials from DOE, EPA and Ecology interfacing with the public and hearing the public's concerns firsthand, and we have repeatedly submitted comments to that effect.

Tri-Party Agreement change packages are not accessible to the public for them to prepare comment on their own. The TPA should include maps and guides to individual waste units so that anyone can easily look up a waste unit (currently designated by numbers, letters and dashes unintelligible to the public), see where it is located and a description of what is in it. There was a major flaw in the presentation of the new deep vadose zone operable unit, which Heart of America Northwest did not catch until two days before the close of comment, as a result of the inaccessibility of the change package document.

Perhaps the major imperfection of the workshop format is that it is not as effective of a format for capturing public comments. At the workshops in Portland and Seattle, notes on the discussion were taken on flip-charts and by a designated note-taker. We expect that all of the notes from both of the meetings will be treated as formal comments and will be responded to in the responsiveness summary.

- The Tri-Party Agreement should include maps and guides to the operable units and waste units for the public;
  - Additionally, Tri-Party Agencies should rename the groundwater operable units to "200 East" and "200 West" to avoid confusion and increase transparency;
- The notes and flip charts from the public workshops in Portland on June 23 and Seattle on June 24 should be responded to as formal comments in the responsiveness summary;
- Senior officials from the Tri-Party Agencies should always be present at public meetings and workshops to interact with the public and hear their concerns firsthand.

Response to Comment 16.18: The Parties appreciated the iterative process the stakeholders engaged in with the Parties to develop the schedule and design of the workshops. We found the small group, focused format to be very constructive and conducive to promoting good dialogue. The Tri-Parties look forward to ongoing opportunities to interact with the public.

A map and chart will not be added to the TPA. Instead, DOE will post on its TPA website (www.hanford.gov/page.cfm/TriParty) a map and chart showing the organization of the operable units by geographic areas.

The Parties decided to keep the existing numerically named groundwater operable units. The existing operable units have a well defined scope based on contaminant plumes. The scope of the final remedy for the 200-ZP-1 groundwater operable unit cannot include that of the 200-UP-1 groundwater operable unit through a name change, but rather requires a Record of Decision Amendment to the 200-ZP-1 Record of Decision. Since the east area groundwater operable units generally flow in different directions and have been tracked according to their source areas (200-BP-1 for B Plant and 200-PO-1 for PUREX), the Parties have decided to maintain the numerically named operable units for east as well.

However, whenever possible the Parties will refer to remediation of these units as either the 200 East Area or 200 West Area groundwater remediation projects to help clarify to stakeholders and the public which remedial actions are being described.

Working with stakeholders, the Parties developed the public meeting format. Key stakeholders selected a few discussion topics and structured the meeting to provide opportunities for the public to discuss these issues. At the public meetings the Parties made and met the commitment to capture meeting discussions in flip chart and meeting notes and email those notes to meeting participants to help them in the formulations of their comments. As stated during the public meetings, flip chart notes and discussion comments are not being specifically responded to in this responsiveness summary document.

COMMENTER 17: Russell Jim, Manager, Yakama Nation ERWM Program

Introductory Statement: The Yakama Nation ERWM Program appreciates the opportunity to review and provide comments on the Proposed Changes to the Tri-Party Agreement (TPA) for the Central Plateau Cleanup Work, and for the Mixed Low-Level Waste and Transuranic Mixed Waste (TPA Change Packages).

The Confederated Tribes and Bands of the Yakama Nation is a federally recognized sovereign pursuant of the Treaty of June 9, 1855 made with the United States of America (12Stat. 951). The U.S. Department of Energy's Hanford site was developed on land ceded by the Yakama Nation under the 1855 Treaty with the United States. The Yakama Nation retains reserved rights to this land under the Treaty.

There is no issue of greater importance to the Yakama Nation than protection of, and respect for the treaty-reserved rights. The Hanford Site lies within ceded area of the Confederated Tribes & Bands of the Yakama Nation. Within this ceded area, the Yakama Nation retains the rights to natural and cultural resources including but not limited to areas of ancestral use, archaeological sites and burial grounds. These resources are sacred and sensitive to the Yakama Nation, and must be managed to preserve, protect and perpetuate the resources that are inseparable from our way of life.

The Yakama Nation ERWM Program's review comments are enclosed. The Yakama Nation ERWM Program identified three areas that have significant concerns.

Response to Introductory Statement: The Parties appreciate your interest in and comments on proposed changes to the Tri-Party Agreement regarding Central Plateau cleanup work. We welcome your continuing involvement in the decision making process. The TPA agencies considered all Tribal Nation and stakeholder comments before finalizing the change packages.

The U.S. Department of Energy Richland Operations Office (DOE-RL) offers opportunities for consultation with the Confederated Tribes & Bands of the Yakama Nation (YN) pursuant to its 2009 DOE Order 144.1, *U.S. Department of Energy American Indian & Alaskan Native Tribal Government Policy.* DOE recognizes its federal trust relationship and has committed to a government-to-government relationship.

Ecology consults with the Yakama Nation in accordance with section 10.10 of the TPA Action Plan and the Washington Centennial Accord. EPA is committed to a government-to-government relationship with the Yakama Nation in accordance with EPA's Indian Policy.

Comment 17.1: Tribal and Public Involvement, Corrective Action changes and use of the CAD/ROD approach: The Yakama Nation ERWM Program does not support the replacement of RCRA corrective actions for past practice units with CERCLA corrective actions. A primary purpose of corrective actions is to ensure full characterization of releases to the environment; as such, characterization is necessary to define the nature and extent of contamination. We do not believe that corrective actions as currently performed under CERCLA will be as complete and have cleanup levels as stringent as under RCRA corrective actions (i.e., particularly the characterization of the vadose zone beneath units subject to the II.Y Condition(s)). Furthermore, the Yakama Nation ERWM Program supports the recent Hanford Advisory Board advice (#231) regarding inclusion of corrective action into the Hanford Facility Permit.

All corrective action requirements should be incorporated into the Hanford Facility Permit according to the requirements of the Washington Administrative Code 173-303-64620(3) and -64630(3). These state rules ensure compliance with the Resource Conservation and Recovery Act (RCRA) and the Model Toxic Control Act, and guarantee the public certain rights (including under the State Environmental Policy Act and appeals). Joint decisions compliant with both RCRA and Comprehensive Environmental Recovery, Compensation and Liability Act processes should be issued for those units regulated under both laws."

Additionally, the Yakama Nation ERWM Program is concerned that the proposed changes will affect the Tribal and public involvement process of WAC 173-303-830/840 and limit opportunities to challenge or seek modification of corrective action decisions in the future. Ecology's reservation of authority to review and impose corrective actions after completion of CERCLA actions will not afford the Tribes and the public the same opportunities for involvement as are currently provided through the Dangerous Waste WACs for permit modifications. Through substitution of the Hanford Federal Facility Agreement and Consent Order (HFFACO or the Tri Party Agreement-TPA) changes and a new CAD/ROD for permit modifications, important Tribal and public involvement rights will be lost through this one-time present and future "blanket" incorporation approach. TPA public participation processes are not as extensive and do not provide similar guarantees to the Tribes and public as permit modifications are required to provide under the Dangerous Waste Regulations.

Response to Comment 17.1: Since the year 2000, TPA requirements and schedules for CERCLA past practice units (CPPs) have been incorporated into the permit by reference to satisfy the requirement that the permit specify corrective action in all contiguous areas of the Hanford facility. The manner of this incorporation is prospective, with the permit incorporating TPA requirements "currently in place…and in the future developed and approved under the HFFACO." This approach is taken so as to not create potential conflict between the permit and the TPA and not potentially conflict with CERCLA's public participation and timing of review provisions, which do not provide for a public appeal process comparable to that provided under WAC 173-303-830/840. Because a CERCLA decision will be made concurrent with a state corrective action decision under the CAD/ROD approach to ensure regulatory authority over radionuclide contamination, the CAD/ROD approach employs the same manner of incorporation. The public will continue to be provided with an opportunity to review and comment on proposed remedial and corrective actions and alternatives, and the Parties must consider and respond to each significant comment before selecting a final remedial or corrective action.

Outside of Hanford, Ecology typically satisfies corrective action through the conditions of an order or consent decree issued under the independent legal authority of MTCA. Just as TPA requirements are incorporated into the Site-wide Permit through Condition II.Y, the requirements of a MTCA order or decree are incorporated by reference into a hazardous waste facility permit. Ecology takes the position that there is no appeal opportunity of the underlying requirements of a MTCA order when those requirements are incorporated into a hazardous waste facility permit. *See* WAC 173-303-64630(3) ("In the case of facilities seeking or required to have a permit under the provisions of this chapter the department will incorporate corrective action requirements imposed pursuant to the Model Toxics Control Act into permits at the time of permit issuance. *Such incorporation will in no way affect the timing or scope of review of the Model Toxics Control Act action.*") (emphasis added); *see also*, Ecology Corrective Action Program Description, Department of Ecology (January 7, 1994) at 44. In Ecology's view, Site-wide Permit condition II.Y offers no lesser opportunity for public participation (including appeal) of a TPA corrective action condition than is available with respect to a MTCA condition incorporated into a typical hazardous waste facility permit issued outside of Hanford. Indeed, under WAC 173-303-830, modification or amendment of a corrective action order issued pursuant to MTCA when the MTCA public participation requirements have already been met and the order has already been incorporated into the permit is a Class 1 modification, not a Class 2 or 3 modification. WAC 173-303-830 Appendix I.N.5.

Comment 17.2: Deep Vadose Zone Operable Units: The Yakama Nation ERWM Program supports deep vadose zone remediation actions as an important component of the cleanup of Hanford. However we reiterate our concern that DOE still lacks a comprehensive, integrated approach to the vadose zone. We believe that DOE should perform interim and concurrent actions concerning the groundwater and the vadose zone to ensure that the cleanup of the source sites reduces risks of levels that are protective of Tribal subsistence uses without relying on long-term stewardship and permanent institutional controls. U.S. Nuclear Regulatory Commission regulations in 10 CFR 61.59 limit reliance upon ICs to 100 years after transfer of radioactive disposal facility property to a new owner. We recommend DOE consider the following in developing a systematic approach to vadose zone cleanup:

- Potential future impacts from the deep vadose zone to groundwater and to the confined aquifer in 200 areas
- Use of more publically available and advanced models for doing modeling to determine potential level of risk to human health and the environment.
- Creation of two separate deep vadose zone RODs; one for the 200 East and one for the 200 West Areas.
- Pursue an independent review of treatability technologies to apply to the deep vadose zone contamination problem.

Response to Comment 17.2: The Parties recognize that the contamination in the deep vadose zone must be addressed and have established the Deep Vadose Zone Operable Unit (200-DV-1 OU). The Parties will use a systematic approach to the 200-DV-1 OU. A RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS) & Remedial Investigation/ Feasibility Study (RI/FS) work plan (TPA milestone M-015-110A) for the 200-DV-1 OU is required. The work plan will include technology screening that identifies technologies applicable for characterization, treatment and monitoring of deep vadose zone contaminants. DOE began this screening process by holding a Deep Vadose Zone Technical Forum on July 20-21, 2010. It is anticipated that technical discussions on deep vadose zone issues will include consideration of advanced modeling techniques to predict contaminant behavior in the vadose zone as

well as an evaluation of risk and uncertainty with respect to protection of human health and the environment from various vadose zone remediation strategies. DOE expects the vadose zone discussions to include a wide variety of practitioners in appropriate scientific disciplines in order to identify a wide range of management strategies for consideration for use at Hanford.

DOE will provide periodic updates on progress to Tribal Nations, the Hanford Advisory Board, the Oregon Hanford Cleanup Board and State of Oregon, and in other appropriate public forums. Information will also be made available through DOE's website at www.Hanford.gov/ .

The Parties believe the remedial alternatives to address risks from sites that make up the Deep Vadose Zone operable unit will be very similar whether they are located in the 200 East or the 200 West Area. We do not anticipate a need to prepare separate deep vadose zone decisions.

Comment 17.3: Mixed Low-level and Transuranic Waste Cleanup:
The Yakima Nation ERWM Program is concerned that the proposed TPA milestones for the shipment of Transuranic mixed waste (TRUM) from Hanford is to be extended to 2035 while the current legally required closure date for the Waste Isolation Pilot Plant (WIPP) is 2030. This milestone and DOE's baseline should be aligned with WIPP's transuranic waste repository schedule to ensure that all WIPP-eligible Hanford waste is disposed at WIPP. Furthermore, while in agreement with HAB Advice #231 regarding these issues, the Yakama Nation ERWM Program does not support construction of waste storage facilities that are in violation of DOE Orders or RCRA or CERCLA regulatory obligations and/or will result in long-term/permanent storage of such wastes on the Hanford site.

The Yakama Nation ERWM Program looks forward to dialog on these concerns and comments.

Response to Comment 17.3: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 17.4: Comments on TPA change packages M-85-10-01, M-16-09-03, and M-15-09-02:
The Yakama Nation ERWM Program, while supporting the need to establish milestone deliverable due dates for Remedial Investigation/Feasibility Study Work Plans for all non-tank farm and non-canyon operable units and completion of Engineering Evaluation/Cost Analysis for all Tier 2 facilities listed in new Appendix J, is concerned that establishing Interim Milestones without a date for final completion of the major milestone will lead to missing of these milestones and requests for extension of the major milestone. *The Yakama Nation ERWM Program recommends the due date for M-085-00 coincide with M-016-00 final due date of 9/30/2024 if not earlier*. *Please provide rationale for not using the 9/2024 date.*

Response to Comment 17.4: DOE works with the regulatory agencies to set cleanup priorities. The final date for completing facility cleanup is still to be determined. It is DOE's goal to complete facility cleanup as soon as possible, however, the complexity of the issues associated with the canyon facilities and the interfaces and interferences with other activities on the Central Plateau may impede completing remediation of the canyons and associated waste sites by 2024.

For example, tank farm storage and retrieval activities and the operation of the Waste Treatment Plant require continued operation of the 222S laboratory and other support facilities into the 2040s or 2050s. The proximity of REDOX to 222-S while it is still in use could present unacceptable hazards during

remediation depending on the remedial alternative selected. Also, T Plant Canyon is expected to continue operation into the early 2020s in support of M-091 milestone activities.

DOE is required to submit a change package proposing a completion date for major milestone M-85-00 to complete facility response actions by September 30, 2012 (M-085-01). Cleanup of the canyon facilities is not considered to be as time-critical as cleanup of wastes sites, because contaminants are currently contained in the buildings that are maintained through surveillance and maintenance activities. It is DOE's goal to complete facility cleanup as soon as possible, however, the complexity of the issues associated with the canyon facilities and the interfaces and interferences with other activities on the Central Plateau may impede completing remediation of the canyons and associated waste sites by 2024.

Comment 17.5: The Yakama Nation ERWM Program supports a geographic approach to cleanup on the Hanford site providing that Operable Units and their cleanups do not combine different source units and their waste streams and apply a singular, similar "one-size fits all' remedy. *The Yakama Nation ERWM Program recommends DOE perform site- specific characterization and risk assessments for each source unit.*

The Yakama Nation ERWM Program is also concerned that with this re-alignment of Operable Units, there are instances where RCRA TSD units are within an Operable Unit and under EPA as lead agency. *The Yakama Nation ERWM program recommends Ecology retain lead agency status for these particular operable units to facilitate RCRA cleanup and to ensure maximum opportunities for public involvement and participation in document review and the permit modification process remains.*

Response to Comment 17.5: The geographic cleanup approach will combine evaluations and decisions for different source units, but will not apply a singular, similar remedy unless that remedy is appropriate and protective of human health and the environment for all source units. Also site investigations, waste characterization and risk assessments must address all source units and waste streams.

EPA will be the lead for some operable units that contain RCRA treatment, storage and disposal units. In the previous operable unit configuration, there were also instances of EPA-lead operable units that included RCRA treatment, storage and disposal (TSD) units. For the RCRA TSDs, a compliant RCRA Closure Plan must still be developed and submitted to Ecology regardless of the lead agency for the operable unit. Ecology remains the lead regulatory agency for closure of all TSD units. For the soil waste sites, the schedule for submittal of the RCRA Closure Plans is included in the M-037-series milestones. Hanford treatment, storage and disposal TSD Closure Plans will be subject to the same public participation requirements as TSD Closure Plans off the Hanford site, i.e., WAC 173-303-830/840.

Comment 17.6: Additionally, while the Yakama Nation ERWM Program supports the integration of soils, facilities, and groundwater cleanup, we are concern there may be cleanup decisions make which artificially separate a contaminate plume in the near surface from deeper in the vadose zone. *The Yakama Nation ERWM Program recommends remedies for groundwater are based on groundwater protection (including surface receptors) from all unit sources, that there are site-specific goals and schedules for additional characterization and a range of cleanup technologies. Furthermore, the Yakama Nation ERWM Program recommends that groundwater monitoring plans for TSD units undergoing closure be incorporated into the Hanford RCRA Permit (unit specific permits) per the WAC 173-303-830/840 process.*

Response to Comment 17.6: The Parties recognize that the contamination in the deep vadose zone must be addressed and have established the Deep Vadose Zone Operable Unit (200-DV-1 OU). The Parties will use a systematic approach to the 200-DV-1 OU. A RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS) & Remedial Investigation/ Feasibility Study (RI/FS) work plan (TPA milestone M-015-110A) for the 200-DV-1 OU is required. The work plan will include technology screening that identifies technologies applicable for characterization, treatment and monitoring of deep vadose zone contaminants. DOE began this screening process by holding a Deep Vadose Zone Technical Forum on July 20-21, 2010. DOE will provide periodic updates on progress to Tribal Nations, the Hanford Advisory Board, the Oregon Hanford Cleanup Board and State of Oregon, and in other appropriate public forums. Information will also be made available through DOE's website at www.Hanford.gov/ .

Waste sites that have contaminants near the surface as well as in the deep vadose zone may have more than one remedial technology applied to address the contamination. Implementation of the selected remedies may occur at different times to permit a more efficient use of resources. Groundwater monitoring plans, when required, for TSD units undergoing closure will be incorporated into the Hanford Facility RCRA Permit.

Comment 17.7: Comments on TPA change package M-37-10-01:

1. *The Yakama Nation ERWM Program requests clarification on whether these are Target or Interim milestones*.

   a. Target milestones under TPA Section 12.2 do not require public involvement. Target milestones can be deleted, added or accelerated or deleted or the target date may be deferred for more than 60 days as long as it does not affect an interim milestone.

   b. Permits are required to have set dates in compliance schedules; any changes would require a modification to the Permit and public involvement/comment per WAC 173-303-830. The *Yakama Nation ERWM Program requests clarification on Tribal and Public Involvement opportunities regarding changes to the WAC 173-303 modification pro*cess for incorp*oration of closure documents (e.g. Groundwater Monitoring Plans, SAPs, Work Plans, etc) into the Hanford RCRA Permit.*

Response to Comment 17.7: The milestones contained in the new M-37 series are interim, enforceable milestones.

Pursuant to WAC 173-303, the Hanford Facility RCRA Permit will contain compliance schedules with dates or time frames identified in the schedule. In some cases, the permit uses TPA milestones to satisfy the need for compliance schedules when such milestones are incorporated by reference into the permit. The WAC 173-303-830 requirement will be followed for modification of closure requirements. The proposed TPA change request does not alter the permitting requirements established under WAC 173-303.

Comment 17.8: Comments on TPA change package C-09-07: *The Yakama Nation ERWM Program is concerned that there may be some waste sites which have been dropped from the Appendix (it is unclear in which Operable Unit the 207-A South Retention Basin is found). The Yakama Nation ERWM Program recommends a recheck of the new Appendix C. The Yakama Nation ERWM Program also recommends that all interim closed units remain listed in Appendix C if not already included.*

Response to Comment 17.8: The Parties routinely update Appendix C and perform numerous quality assurance checks to ensure waste sites are not dropped. The 207-A South Retention Basin will remain in Appendix C since some of the contaminants include radionuclides not directly regulated by RCRA closure requirements. We are placing it in the 200 East Area (200-EA-1) operable unit. Although no longer actively used, it will also remain listed in Appendix B as a Treatment, Storage and Disposal unit, and Ecology will establish closure plan requirements for the 207-A South Retention Basin in the re-issue permit.

Comment 17.9: Comments on TPA change package P-00-09-02: There are established definitions for the term "facility" under both the CERCLA and RCRA regulations. It is unclear as to the need to re-define this term for the purposes stated within this change package. It is unclear and confusing what is to address facilities ancillary equipment and the associated soils. *The Yakama Nation ERWM Program requests clarification on these issues.*

Response to Comment 17.9: It is not general practice to redefine terms that are already defined in statutes or regulations. In this case, however, the term "facility" is a very common word used regularly at the Hanford Site to describe individual structures. The definition of "facility" in the Hanford Facility Dangerous Waste Permit is very broad and means the entire Hanford Site. The Parties believe that it is necessary to clarify the meaning of the term as it is used in Section 8 of the Action Plan since the Section 8 meaning of the term is different than the permit and regulatory definitions. The definition only applies to the use of the term in Section 8 of the Action plan. The original Tri-Party Agreement already had redefined the term "facility" as it was used in Section 8 of the Agreement. The revision to the definition more accurately represents the common usage.

Ancillary equipment and associated soils are typically addressed with the facility as it is dispositioned. If contaminated soil remains after clean up of a structure is completed, it will be evaluated using the same process as a newly identified waste site.

Comment 17.10: It is unclear whether the dispostioning process will differ or substitute for the RCRA closure process for TSD units. The inclusion of cribs, ponds, ditches, and landfill under this disposition process is noted. There is concern that corrective actions for these units will be deferred to CERCLA via the "CAD-ROD" approach and lost opportunities for public participation and appeal. Under WAC 173-303-640(8)(a) all contaminated soils and system components and structures and equipment contaminated with waste must be removed. *This is an example of why Yakama Nation ERWM Program does not support the "CAD-ROD" approach. The Yakama Nation ERWM Program requests clarification on these issues.*

Response to Comment 17.10: "Dispositioning" is a term that applies to facilities (e.g., buildings). RCRA TSD activities have occurred in some facilities scheduled for dispositioning. The TSD closure process is required for those hazardous waste management units in the facility being dispositioned, and will be carried out according to closure requirements established in the Hanford Dangerous Waste permit. The dispositioning process will not substitute for the RCRA closure process, although in some cases, closure requirements may be based on whole or part on disposition process requirements. The TPA change for TPA action plan says:

"The process is designed to . . . ensure compliance with environmental regulations, including waste management, *closure and post closure requirements under RCRA*, and remedial and/or removal action requirements under CERCLA."

The disposition process will not apply to "cribs, ponds, ditches and landfills."

Comment 17.11: It is unclear how the NEPA documentation, RCRA closure plans, and other documents supporting these efforts will be initiated and developed, under what regulatory authority these will be developed, and what lead regulatory agency will have the final approval authority for the disposition end states. *The Yakama Nation ERWM Program requests clarification on these issues.*

Response to Comment 17.11: As described in revised Section 8.1.4, disposition documents will be developed in accordance with Tri-Party Agreement Action Plan Section 6 requirements (for RCRA TSDs) and Section 7 requirements (for Tier 1 and 2 facilities – those that have been determined to require disposition under CERCLA). Plans will be developed and approved through the permitting process for all dangerous waste management units, including those in or part of facilities undergoing disposition.

The lead regulatory agency for Tier 1 and Tier 2 facilities will be determined on a case-by-case basis. In general, however, facilities located near soil waste sites that are in an Ecology-lead operable unit will be assigned to Ecology. Facilities that are near soil waste sites that are in an EPA-lead operable unit will be assigned to EPA. "Other" facilities – those that are determined not to pose a threat of release of hazardous substances to the environment – will not be assigned a lead regulatory agency.

As provided in section 5.7 of the TPA Action Plan, NEPA assessments when determined to be required will be made primarily as part of the CERCLA process. Little if any separate NEPA documentation is expected to be required for disposition of these facilities. The CERCLA decision process and documents include the analysis of alternatives and environmental impact that is functionally equivalent to NEPA.

Comment 17.12: It is unclear whether the facility dispostioning process and reliance on DOE Order 430.1B, U.S. Department of Energy Real Property Asset Management (9/24/2003) and The Decommissioning Handbook (DOE/EM-0383, 1/2000) will retain and ensure early Tribal involvement in the development of project goals and objectives. *The Yakama Nation ERWM Program requests clarification on how DOE will initiate discussions and provide for opportunities of public involvement with the Yakama Nation ERWM Program.*

Response to Comment 17.12: The changes proposed for Section 8 of the Tri-Party Agreement Action Plan focus on updating the section to include coverage of all the buildings on the Central Plateau. While there is some alignment with DOE orders and DOE's Decommissioning Handbook, disposition of facilities warranting a CERCLA response action will be performed through either a non-time critical removal action or a remedial action depending on the complexity and degree of overlap with surrounding soil waste sites. All CERCLA and Tri-Party Agreement provisions for government-to-government relations, review and comment on EE/CAs and proposed plans, primary document (e.g., RD/RA work plan) reviews and status updates remain in effect. TSD units are required to be closed in accordance with closure plans in the facility permit.

Comment 17.13: Comments on TPA change package J-09-01:

1. Decision documents for RCRA TSDs dot not seem to be appropriately designated. These units will need Closure Plans submitted to Ecology per WAC 173-303-610 closure requirements. *The Yakama Nation ERWM Program requests clarification as to what are the required and/or*

anticipated documents to be listed. The Yakama Nation ERWM Program recommends that all these required or anticipated documents be listed.

Response to Comment 17.13: The purpose of Appendix J, Central Plateau Facilities, is to identify facilities that require a CERCLA response action for cleanup. Appendix J is coordinated with the revised Section 8 of the TPA Action Plan (change package P-00-09-02) that establishes the Facility Evaluation (FE) process for Central Plateau facilities. The FE process uses a graded approach for facility disposition. That is, facilities that are complex and heavily contaminated require a greater degree of regulatory oversight than facilities that are less complex and less contaminated. The FE process has not been completed for all Central Plateau facilities yet, so the complete list of documents has not yet been developed. As a result, Appendix J only lists the documents that have already been approved. As additional documents, including RCRA Closure Plans are developed, they will be added to the Appendix J listing. Those facilities that contain RCRA Treatment Storage and Disposal units identified in Appendix B of the Tri-Party Agreement are marked with a double asterisk (**).

Comment 17.14: Comments on TPA change package A-10-01:
The need for re-defining the term "facility" is unclear. This re-defining of the term "facility" suggests the potential to consider soil units (cribs, trenches, burial grounds, and landfills) as subject to disposition rather than cleanup per corrective action regulations. *The YN ERWM Program requests clarification of the potential impacts to RCRA TSD and RCRA Past Practice Units as well as CERCLA Past Practice Units.*

The YN ERWM Program also requests the following deleted text remain in paragraph of Appendix A (Page A-17):

"for corrective action, regardless of the date waste was received or discharged at a unit."

Response to Comment 17.14: It is not general practice to redefine terms that are already defined in statutes or regulations. In this case, however, the term "facility" is a very common word used regularly at the Hanford Site to describe individual structures. The definition of "facility" in the Hanford Facility Dangerous Waste Permit is very broad and means the entire Hanford Site. The Parties believe that it is necessary to clarify the meaning of the term as it is used in Section 8 of the Action Plan since the Section 8 meaning of the term is different than the permit and regulatory definitions. The definition only applies to the use of the term in Section 8 of the Action plan. The original Tri-Party Agreement already had redefined the term "facility" as it was used in Section 8 of the Agreement. The revision to the definition more accurately represents the common usage.

Consistent with your comment, the Parties will revise the following TPA definition for "RCRA-CERCLA Past Practice (R-CPP)" as follows: A process by which a past practice unit containing hazardous wastes or hazardous constituents and hazardous substances will be addressed for RCRA corrective action, and CERCLA cleanup regardless of the date waste was received or discharged at a unit. (see Section 7 for the process)

Due to the length and complexity of the following comment, the Parties divided the comment into sections and responded to each section.

Comment 17.15.1 Comments on TPA change package L-09-01: In the explanation of 'Impact of Change' on the Change Control Form, the statement made that these changes will implement a

coordinated RCRA/CERCLA process for certain units. *The Yakama Nation ERWM Program requests clarification of which units.*

Response to Comment 17.15.1: Please see Appendix C for a complete listing of all units classified (or re-classified) to be RCRA-CERCLA Past Practice Units.

Comment 17.15.2: Article XIV. Work: Statement: Ecology will administer RCRA Subtitle C corrective action provisions in accordance with this Agreement and issue all future modifications to the corrective action portion of the TSD permit. There appears to be some confusion regarding incorporation of corrective actions into to the RCRA permit. *The Yakama Nation ERWM Program requests clarification (including the decision basis) of which corrective action decisions will be incorporated into the Hanford Permit.*

Response to Comment 17.15.2: Ecology already largely uses the past practice process identified in the TPA Action Plan to satisfy corrective action requirements, with TPA requirements and schedules then incorporated into the Hanford Facility RCRA Permit to satisfy WAC 173-303-64620(3). Ecology will continue to incorporate RCRA (HWMA) corrective action into the Hanford Facility RCRA Permit via the Permit Condition II.Y. The incorporation approach is identical to the manner in which the TPA's corrective action requirements and schedules have been incorporated into the Hanford Facility RCRA Permit since the year 2000 (although the scope of this incorporation is now expanded to include a final corrective action decision made under the framework of the TPA). The only difference from the previous approach under Condition II.Y is that a new process for issuing a corrective action decision (the CAD) has been created under the TPA, whereas under the previous Condition II.Y, the final corrective action decision is to be made through a separate permit modification. Nevertheless, the requirements and schedules developed under the TPA to implement the CAD will still be incorporated into the permit.

Comment 17.15.3: Article XVI. Resolution of Disputes: Statement made: These Dispute Resolution provisions shall not apply to RCRA permit actions which are otherwise subject to administrative or judicial appeal. *The Yakama Nation requests clarification as to what is meant by "otherwise subject to administrative or judicial appeal."*

Response to Comment 17.15.3: The comment relates to an existing term of the TPA and not to proposed language that has been submitted for public comment. Regardless, the reference in TPA Article XVI is to make it clear that where a legal right to administrative or judicial appeal is available with respect to certain RCRA permit modifications, the terms of Article XVI do not apply.

Comment 17.15.4: Article XIV. Work, Paragraph 54: Statement made: Ecology in consultation with DOE shall select the RCRA corrective action(s). The final selection of RCRA corrective actions by Ecology shall be final and not subject to dispute. *The Yakama Nation ERWM Program requests clarification as to the application of the proposed changes and the above statements and the process for Tribal and public involvement.*

Response to Comment 17.15.4: Again, the comment relates to an existing term of the TPA and not to proposed language that has been submitted for public comment. The language indicates that Ecology's final decision on RCRA corrective actions (which will now be through a corrective action decision [CAD] issued under the TPA) is not subject to dispute under the terms of Article VIII.

Comment 17.15.5: The "Agreement" states: "In the event of any inconsistency between this Agreement and the attachments to this Agreement (i.e., the Articles), this Agreement shall govern unless and until duly modified pursuant to Article XXXIX of this Agreement.

a. Changes within the Action Plan regarding how Corrective Action is implemented on the Hanford site are not consistent with the approach outlined in the Agreement. *The Yakama Nation ERWM Program requests clarification on how use of the CAD/ROD approach meets the consistency requirements of the Agreement.*

Response to Comment 17.15.5: The Corrective Action Decision/Record of Decision (CAD/ROD) approach does not replace RCRA corrective action with a CERCLA remedial action. The state will still be making an independent corrective action decision. The state will make this decision in accordance with the corrective action requirements of the Dangerous Waste Regulations, WAC 173-303-64620(4), which require that corrective action be consistent with specified requirements of the Model Toxics Control Act's implementing regulations, including MTCA's cleanup standards. In this sense, the only change under the TPA is that the corrective action decision will now be made under the TPA (through a new decision document, the CAD) rather than outside of the TPA through a permit modification process.

With respect to CERCLA, Article IV, Paragraph 17 of the TPA expressly provides that the Parties intend that activities covered by Part Three of the TPA, which includes CERCLA Remedial Actions, will satisfy the corrective action requirements of the State HWMA and that MTCA shall be incorporated as appropriate as applicable or relevant and appropriate requirement. TPA Action Plan Section 5.4 also establishes the requirement for consistency between the RPP and CPP processes: "The corrective action process selected for each operable unit shall be sufficiently comprehensive to satisfy the technical requirements of both statutory authorities and the respective regulations." Nothing in these provisions is changed.

Due to the length and complexity of the following comment, the Parties divided the comment into sections and responded to each section.

Comment 17.16.1: Comments on TPA change package P-00-09-01:

1. Corrective Action Decisions would be prepared, issued, and implemented under the HFFACO (TPA) and in accordance with WAC 173-340 regulations. There has not been a clear explanation of how Ecology can apply this process to the Hanford Facility. Furthermore, while Ecology claims to continue to retain authority to require corrective actions under RCRA be performed or after evaluating CERCLA corrective actions, to require additional corrective actions be performed, the opportunity for Yakama Nation Tribal public involvement or appeal are reduced or eliminated. *The Yakama Nation ERWM Program takes issue with the position that WAC 173-303 regulations allow the deferral of RCRA corrective actions to CERCLA and subsequent elimination of the permit modification process requiring incorporation of corrective actions into the Hanford RCRA permit. The Yakama Nation ERWM Program requests clarification on the RCRA regulatory pathway for the CAD/ROD (including regulatory citations).*

Response to Comment 17.16.1 There is no "deferral" of corrective action under the proposal. As explained above, the state will still be making an independent corrective action decision for R-CPP operable units in accordance with the corrective action requirements of the Dangerous Waste Regulations, WAC 173-303-64620(4). The requirements and schedules developed to implement the CAD will be fully incorporated into the permit through the permit's incorporation of the TPA's

schedules and requirements for corrective action. CERCLA authority will simply be applied concurrently to these operable units. Issuing CERCLA RODs along with RCRA CADs ensures that regulatory authority is available to address radionuclide contamination.

2. **Comment 17.16.2a**. The Yakama Nation ERWM Program has concerns on the following general issues evolving from the CAD/ROD:

The U.S. Department of Environmental Protection (EPA) has authorized the State of Washington to administer and enforce a state hazardous waste program in lieu of a federal program. To become authorized, a state program must, among other things, consistent with and no less stringent than the hazardous waste program under RCRA and consistent with the federal and state programs in other states (*see generally* 40 CFR Part 271). The state program must have the legal authority to implement provisions at least as stringent as designated federal hazardous waste permit provisions. 40 CFR § 271.10. The Washington State Department of Ecology, Nuclear Waste Program, through the Revised Code of Washington (RCW) Chapter 70.105, Chapter 70-105D (Corrective Action), and implementing regulations at WAC 173-303 (Washington State Dangerous Waste regulations), applies this oversight authority to the US Department of Energy Hanford Site.

> Washington State has authority to implement corrective actions through WAC 173-303-646 [Dangerous Waste Regulations], not via the Hanford Federal Facility Agreement and Consent Order (HFFACO or the Tri Party Agreement-TPA). *The Yakama Nation ERWM Program is concerned that the Tri-Party Agencies (particularly Ecology) are relying, for RCRA corrective actions, on milestone schedules in the TPA to meet these requirements rather than directing cleanup and the aligning CERCLA and RCRA decision making processes and procedures through RCRA permit compliance schedules or incorporation of RCRA corrective actions into Part IV of the Hanford Permit. The Yakama Nation ERWM Program requests clarification on the regulatory authority of the TPA.*

Response to Comment 17.16.2a: The proposed approach is consistent with Washington's corrective action authorization under RCRA. It is also consistent with U.S. Environmental Protection Agency guidance on using other cleanup authorities, including CERCLA, to satisfy RCRA corrective action. *See, e.g.,* Memorandum, "Transmittal of the National Enforcement Strategy for RCRA Corrective Action," OECA/OSWER (April 27, 2010); Memorandum, "Transmittal of Guidance on Enforcement Approaches for Expediting RCRA Corrective Action," OECA (January 2, 2001); Memorandum, "Coordination between RCRA Corrective Action and Closure and CERCLA Site Activities," OECA/OSWER (September 24, 1996). Outside of Hanford, Ecology typically satisfies corrective action through the conditions of an order or consent decree issued under the independent legal authority of MTCA. These separate legal requirements are then incorporated into a hazardous waste facility permit, similar to the incorporation of TPA requirements into the Hanford Facility RCRA Permit through Condition II.Y.

In this case, Ecology is satisfying the requirement that the permit specify corrective action, see WAC 173-303-64620(3), through incorporation of the schedules and requirements of the TPA, which is itself (in part) a corrective action order. See Article IV, Paragraph 20.

Comment 17.16.2b: The CAD/ROD document is not a MTCA order or decree and it is not being prepared under Ecology authority or Ecology's subsequent obligations to prepare a responsiveness summary and incorporate the corrective action decision into the Hanford Permit. *The Yakama Nation ERWM Program requests clarification on relationship of the CAD/ROD to a MTCA order or decree and clarification on process for incorporation of the CAD into the Hanford Permit.*

Response to Comment 17.16.2b: Under 42 U.S.C. § 9620(a)(4), Congress has only waived sovereign immunity to allow state cleanup laws such as MTCA to apply at federal facilities "when such facilities are not included on the National Priorities List." Ecology therefore cannot issue a legally effective MTCA order for any NPL-listed area of the Hanford site. However, the Hanford Federal Facility Agreement and Consent Order is (in part) a corrective action order, and it serves a function similar to the MTCA orders used for permitted TSD facilities elsewhere in Washington. As indicated above, the CAD will be made in accordance with the corrective action requirements of the Dangerous Waste Regulations, WAC 173-303-64620(4), which at a minimum require that corrective action be consistent with specified requirements of the Model Toxics Control Act's implementing regulations, including MTCA's cleanup standards. The requirements and schedules developed under the TPA to implement the CAD are being incorporated into the Hanford permit prospectively, in accordance with the modified Hanford permit condition II.Y.

Comment 17.16.2c: There is loss of opportunity for Yakama Nation Tribal public involvement opportunities if Corrective Actions are not incorporated into the Facility Permit per the requirements of WAC 173-340.*The Yakama Nation ERWM Program requests clarification on the process of making modifications to the CAD/ROD and how many opportunities there will be for Tribal public involvement.*

Response to Comment 17.16.2c: The Yakama Nation will continue to have the opportunity to submit comments during the public comment periods for Proposed Corrective Action Decisions/Proposed Plans. The Tri-Parties will also continue to discuss proposed decisions with the Yakama Nation on a government-to-government basis, in accordance with each Party's individual policies on government-to-government relations, and in accordance with Section 10.10 of the TPA Action Plan.

Comment 17.16.2d: Incorporation of a CAD/ROD decision into the Administrative Record of any unit is not equivalent to incorporation of the document into the unit permit per WAC 173-303-646 or WAC 173-303-830/840.*The Yakama Nation ERWM Program requests clarification on whether incorporation by reference is equivalent to WAC 173-303 requirements to include corrective actions into the Hanford Permit and will allow for Tribal and public involvement opportunities.*

Response to Comment 17.16.2d: As indicated above, the requirements and schedules developed under the TPA to implement the CAD, as well as the ROD, will be incorporated into the Hanford permit through the Permit's incorporation of the requirements and schedules of the TPA. The prospective incorporation of these requirements into the Hanford permit is consistent with WAC 173-303 requirements. As also noted above, Ecology also incorporates the separate legal requirements of MTCA orders and decrees into a hazardous waste facility permits outside of Hanford.

Comment 17.16.2e: It is thought, should this TPA change package be approved, once the initial public participation requirements are met, that any future documents (e.g. SAPs, Work Plans, etc) submitted to fulfill work under this CAD/ROD would not have to be subject to public involvement/review & comment. *The Yakama Nation ERWM Program requests clarification as to what future documents will be provided for Tribal review and comment and how that process will occur.*

Response to Comment 17.16.2e: SAPs and Work Plans are not currently subject to formal public involvement. The Tri-Parties conduct "appropriate" public involvement for these types of documents, depending on the perceived significance of the documents and the level of public interest. The Yakama Nation continues to have the opportunity to submit comments on draft primary documents, including SAPs and Work Plans, in accordance with each Party's individual policies on government-to-

government relations, and in accordance with Section 10.10 of the TPA Action Plan. The Tri-Parties have briefed the Hanford Advisory Board on some of these types of documents, and received HAB advice on some.

Comment 17.16.3a*:* **S**tatement is made regarding Figure 7-2 [HFFACO] that the CAD/ROD approach is 'functionally equivalent' to a Record of Decision process. That statement is debatable. *The Yakama Nation ERWM Program requests the Tri-Parties define the terms "functionally equivalent" and by what authority "functional equivalence" is provided.*

a. It is incorrect to imply that the CAD/ROD is functionally equivalent to a Permit or the Permit approach to incorporate corrective actions into the Hanford Facility RCRA Permit. *The Yakama Nation ERWM Program requests basis for statements and how many opportunities for Tribal and public involvement will be allowed under this approach.*

Response to Comment 17.16.3a: The CAD/ROD is two decisions: a corrective action decision (CAD) and a CERCLA Record of Decision (ROD). There is no difference in substance between a corrective action remedy decision made under the TPA (through a CAD) and one made directly through a permit modification process. Whichever decision process is used for corrective action, there is an opportunity for public comment. The Yakama Nation will continue to have the opportunity to submit comments in accordance with each Party's individual policies on government-to-government relations, and in accordance with Section 10.10 of the TPA Action Plan.

Comment 17.16.3b: Stating that something is "functionally equivalent" does not ensure that work done is sufficiently comprehensive to satisfy the technical and substantive requirements of both RCRA and CERCLA. *The Yakama Nation ERWM Program requests clarification on the steps to be taken by the Tri-Parties to ensure these requirements are met for all authorities.*

Response to Comment 17.16.3b: In order to satisfy corrective action requirements, all Hanford cleanup decisions must "be consistent with" specified portions of the WAC 173-340 regulations. See WAC 173-303-64620(4). The TPA cleanup requirements for past practice units addresses the need to satisfy the technical and substantive requirements of both RCRA and CERCLA. Paragraph 17 states that the Parties intend that remedial and corrective actions required to address releases from past practice units will achieve compliance with CERCLA and will satisfy corrective action requirements of the State's Hazardous Waste Management Act (HWMA) and RCRA, and will meet or exceed all applicable or relevant and appropriate federal and state requirements to the extent required by Section 121 of CERCLA. Paragraph 17 also states that the Parties agree that with respect to releases covered by the TPA, RCRA and the HWMA and MTCA shall be incorporated where appropriate as applicable or relevant and appropriate requirements (ARARs) pursuant to Section 121 of CERCLA. Compliance with ARARs is one of two threshold criteria for making CERCLA decisions.

Comment 17.16.4: Action Plan, Section 3.5, 1st paragraph, 2nd sentence: There is no current classification for R-CPPs in WIDS or in the MP-14 process of the TPA. *The Yakama Nation ERWM Program requests clarification on the process to address this concern.*

Response to Comment 17.16.4: The Tri-Parties intend to update the WIDS and the MP-14 procedure to include the terminology to include R-CPP.

Comment 17.16.5: Action Plan, Section 5.4: Last sentence of last paragraph: The words "past practice process" will not ensure that corrective actions per WAC 173-303-646 are satisfied. Additionally, R-CPP

authority use as defined: "generally be used for operable units that contain significant TSD units and/or lower-priority past-practice units" implies the potential use of the CAD/ROD approach when dealing with inclusion of corrective action into TSD permits as established in Part II of the HFFACO and disregard of WAC 173-303-646 requirements. *The Yakama Nation ERWM Program requests clarification on how and under what authority corrective action for TSD units will be performed and incorporated into the Hanford Permit.*

Response to Comment 17.16.5: The Tri-Parties are not at this time proposing to use corrective action to satisfy closure standards for TSDs.

Comment 17.16.6: Action Plan, Section 7.1: Last paragraph: Statement is made that steps in Figure 7-2 are "functionally equivalent" but deletions of text in Section 7.4.2 removes the requirement that these processes be just that-"functionally equivalent." *The Yakama Nation ERWM Program requests clarification whether or not there is a requirement that processes be "functionally equivalent."*

Response to Comment 17.16.6: The TPA still provides that cleanup actions taken under either RCRA or CERCLA achieve the same substantive cleanup standards. Paragraph 17 states that the Parties intend that remedial and corrective actions required for releases from past practice units will achieve compliance with CERCLA and will satisfy corrective action requirements of the State's Hazardous Waste Management Act (HWMA) and RCRA, and will meet or exceed all applicable or relevant and appropriate federal and state requirements to the extent required by Section 121 of CERCLA. Paragraph 17 also states that the Parties agree that with respect to releases covered by the TPA, RCRA, the HWMA and MTCA shall be incorporated where appropriate as applicable or relevant and appropriate requirements (ARARs) pursuant to Section 121 of CERCLA. Compliance with ARARs is one of two threshold criteria for making CERCLA decisions.

Comment 17.16.7a: Action Plan, Section 7.4.2, Last sentence and multiple changes in Section 7.4.3 & 7.4.4, 7.4.5, 7.4.6: Addition of new text indicates a preference to defer to CERCLA rather than follow the WAC 173-303 process for performing corrective actions on the Hanford site. Ecology appears to be abrogating/relinquishing its corrective action responsibilities to USDOE and allowing this authority to be dictated by the TPA process and milestones.

a. Deletion of conducting corrective actions per the schedules of compliance specified in the RCRA permit is in violation of WAC 173-303-64620(3)

i. [The permit will contain schedules of compliance for such corrective action where such corrective action cannot be completed prior to issuance of the permit], and

ii. WAC 173-303-64630(3)[In the case of facilities seeking or required to have a permit under the provisions of this chapter the department will incorporate corrective action requirements imposed pursuant to the Model Toxics Control Act into permits at the time of permit issuance.] *The Yakama Nation ERWM Program requests clarification on how these WAC 173-303 requirements are to be met.*

Response to Comment 17.16.7a: As indicated above, there is no "deferral" of corrective action to CERCLA. The state will still be making an independent corrective action decision in accordance with the corrective action requirements of the Dangerous Waste Regulations, WAC 173-303-64620(4). This decision will still be fully incorporated into the permit through the permit's incorporation of the TPA's schedules and requirements for corrective action. CERCLA authority will simply be applied concurrently to these operable units.

i. Ecology is not deleting the requirement for a schedule of compliance, but is using the compliance schedules in TPA Action Plan Appendix D to satisfy the WAC 173-303-64620(3) requirement. Through Hanford Facility RCRA Permit Condition II.Y, Ecology has already been relying on TPA schedules in the same manner since the year 2000 (although the scope of this incorporation is now expanded to include incorporation of a final corrective action decision made under the framework of the TPA).

ii. Ecology is not issuing corrective action requirements "pursuant to" the Model Toxics Control Act, but is requiring that corrective action be "consistent with" certain provisions of the MTCA regulations as specified in WAC 173-303-64620(4).

Comment 17.16.7b: O & M Plans: Terminating O & M while continuing it for other units within and operable unit suggest using a "partial closure permitting" approach which is not authorized by Washington State. *The Yakama Nation ERWM Program requests clarification on this issue.*

Response to Comment 17.16.7b: O&M will not be terminated. Although text referring to the O&M phase is deleted in TPA Action Plan Section 7.4.3, new text appears in TPA Action Plan Section 7.4.5: "The lead regulatory agency for the operable unit shall continue its oversight role through the corrective measures implementation (CMI) and Remedial Design/Remedial Action (RD/RA) phase including any long-term monitoring or maintenance phase that is specified in the CMI and RD/RA work plan." O&M is also required by TPA Action Plan Section 7.4.6. "Operation and Maintenance."

Comment 17.16.7c: Delisting after O & M is completed: Certification of completion under RCRA verses CERCLA is unclear; there does not appear to be the opportunity for public participation. *The Yakama Nation ERWM Program requests clarification on this issue.*

Response to Comment 17.16.7c: Deletion from the CERCLA NPL and "completion" under RCRA are two quite different processes, on different timelines. Discrete portions of the Hanford site have been deleted following an opportunity for public comment, and other portions will be considered for deletion from the NPL once remedies are operational and functional. For example, this already occurred for the 1100 Area NPL site and is documented in TPA Appendix C. There are no regulatory requirements for a public comment period on certifications that remedial and corrective actions are complete. However, in making decisions that corrective and remedial actions are complete, Tri-Party Agreement provisions for facilitating tribal participation in TPA decision making at the government to government level would apply, including the requirement to provide the tribes with key documents.

Comment 17.16.7d: Evaluation of effectiveness of corrective actions: Under WAC 173-303-645(11)(g) require reports on effectiveness of corrective action programs on a semi-annual basis. How is a requirement to have a review only "at least every 5 years during the O & M phase" in compliance with this regulation? *The Yakama Nation ERWM Program requests clarification on this issue.*

Response to Comment 17.16.7d: The WAC 173-303-645 requirements apply only to releases from regulated units (land-based TSDs). They do not apply to past practice releases at Hanford. With respect to past practice corrective action, the requirement for a five-year review is triggered by the requirement in WAC 173-303-64620(4)(e) that a "periodic review" be provided for corrective actions that is, at a minimum, consistent with the periodic review requirements under MTCA's regulation, WAC 173-340-420.

Comment 17.16.7e: Action Plan, Section 7.5: Deletion of text from 2nd to last paragraph of section indicates no future corrective actions to be incorporated into the Hanford permit for any unit. *The Yakama Nation ERWM Program requests clarification on this issue.*

Response to Comment 17.16.7e: Corrective action will still be incorporated into (and become enforceable under) the Site-wide permit via the modified II.Y condition, satisfying the RCRA and HWMA requirement that the permit specify requirements and a schedule for corrective action. The Site-wide permit will list all of the Operable Units in the Part IV section (corrective action portion) and no units are being "removed" from the permit. Indeed, the incorporation approach proposed for RCRA-CERCLA past practice units (R-CPPs, re-designated from RCRA past practice units [RPPs]) is identical to the manner in which the TPA's corrective action requirements and schedules for RPPs have been incorporated into the permit since the year 2000 (although now with the addition of incorporating a final corrective action decision made under the framework of the TPA): "The requirements and schedules related to investigation and cleanup of R-CPP units currently in place under the HFFACO, as amended, and in the future developed and approved under the HFFACO, as amended, are incorporated into this Permit by this reference and apply under this Permit as if they were fully set forth herein ." Proposed Permit Condition II.Y.2.b.i. The only difference from the current approach is that the ultimate corrective action remedy decision will also be made and implemented as a requirement "developed and approved" under the TPA (as incorporated into the permit through the above condition), rather than through a separate permit modification outside of the TPA.

Comment 17.17: Comments on TPA change package P-07-09-02:
There is concern that the decision-making basis and other valuable information will be lost should RODs not remain a part of the Administrative Record for each operable unit. *The Yakama Nation ERWM Program requests this information remain as included in the Administrative Record for each operable unit.*

Proposed changes provide for DOE to author Records of Decision for regulator approval. *The Yakama Nation ERWM Program recommends close collaboration and inclusion of alternatives that the regulators would like to evaluate in the Feasibility Studies and Proposed Plans.*

Response to Comment 17.17: A separate Administrative Record is required for each decision. The Administrative Record must contain all of the information that supports the CERCLA remedial action decision and it will contain the ROD. In some cases, some of this information for a particular ROD is contained in older operable unit files. This information will be incorporated into the administrative record and made available for review by the Tribes, the stakeholders and the public. A crosswalk to link the older file information to the administrative record file will be created so that this information is readily available to the Tribes, the stakeholders and the public. A crosswalk to link the older file information to the administrative record file will be created so that this information is readily available to the Tribes, the stakeholders and the public.

A number of commenters raised concerns about DOE writing the initial drafts of RODs. Therefore, the Parties agreed to revise the change form so it provides that EPA will write the draft ROD or it will be written jointly by EPA and Ecology, if Ecology is the lead regulatory agency. The lead regulatory agency in cooperation with DOE (and EPA if Ecology is the lead regulatory agency), will finalize the ROD.

Comment 17. 18: Comments on TPA change package M-91-09-01-Mixed Low-Level Waste and Transuranic Mixed Waste:

The Yakama Nation ERWM Program supports what the Hanford Advisory Board noted in recent advise (HAB Consensus Advice #231) regarding Mix Low-Level and Transuranic Mixed Waste Cleanup with the following exceptions:

The Yakama Nation ERWM Program does not support the construction of waste storage facilities which are in violation of DOE Orders or RCRA or CERCLA regulatory obligations and/or will result in long-term/permanent storage of such wastes on the Hanford site. The Yakama Nation ERWM Program will seek additional consultation with the Tri-Party Agencies on this issue and associated issues and will be providing further technical/regulatory comments on these proposed changes.

Response to Comment 17.18: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 17.19: Comments on TPA Agreement In Principle: As It is unclear whether revisions to the Hanford Federal Facility Agreement and Consent Order (HFFACO) to ensure *that investigations and remediation of soil contamination from single shell tanks be coordinated with actions taken elsewhere at the Hanford site to investigate and remediate deep vadose zone contamination* implies or approves of delays in investigations and remediation of soils contaminated by leaks from the single shell tanks (SST). It is also unclear whether this statement allows or anticipates corrective actions for the SST system (and associated contaminated soils) to be performed under CERCLA actions rather than RCRA actions. *The YN*

ERWM Program, while recognizing this is not included as a TPA change package, would appreciate clarification on these issues.

Response to Comment 17.19: The AIP signifies the Parties' agreement to discuss revisions of the Hanford Federal Facility Agreement and Consent Order (HFFACO) that may be appropriate to ensure: 1) that all soil contamination from single shell tanks, including radionuclides, is addressed in accordance with applicable regulatory requirements; and 2) that the investigation and remediation of soil contamination from single shell tanks is coordinated with action taken elsewhere at the Hanford site to investigate and remediate deep vadose zone contamination. These discussions will take place following completion of the pending Consent Decree [Washington vs. Chu, case No. 08-5085 FVS]. If these discussions result in further changes to the Tri-Party Agreement, public input will be sought in accordance with the public involvement processes outlined in the Community Relations Plan. Until that time, existing Tri-Party Agreement milestones related to single-shell tank cleanup remain in effect.

COMMENTER 18: Lauren Goldberg, Columbia Riverkeeper

Introductory Statement: On behalf of Columbia Riverkeeper, please accept the following public comments on the proposed changes to the Tri-Party Agreement (TPA) for the Central Plateau cleanup actions and for the Mixed Low-Level Waste (MLLW) and Transuranic Mixed Waste (TMW).

I.

COLUMBIA RIVERKEEPER'S COMMITMENT TO PROMPT, EFFECTIVE CLEANUP AT HANFORD.

Columbia Riverkeeper is a membership-based 501(c)(3) nonprofit organization. CRK's mission is to protect and restore the Columbia River, from it headwaters to the Pacific Ocean. Since 1989, CRK has played an active role in monitoring and improving cleanup activities at the Hanford Nuclear Reservation (Hanford). A legacy of the Cold War, the Hanford site continues to leach radioactive pollution into the Columbia River. Hanford's legacy is not a local issue. Nuclear contamination from Hanford threatens the Pacific Northwest's people, a world renowned salmon fishery, as well as countless other cultural and natural resources.

CRK's staff and members are dedicated to a long-term solution for Hanford cleanup. Simply put, Hanford is one of the world's most contaminated sites. Despite this status, the public and CRK members continue to catch and consume fish from the Columbia River and recreate near and downstream of Hanford. For example, each summer CRK leads a series of kayak trips on the Hanford Reach of the Columbia River. The Hanford Reach is particularly unique because it is the last free-flowing stretch of the Columbia. On these outings, our members and staff pass the shores of the Hanford Nuclear Reservation and learn about the ESA-listed salmon and steelhead that spawn, rear, and migrate in the Hanford Reach. For these reasons, CRK is submitting comments on the Central Plateau cleanup actions and for the Mixed Low-Level Waste (MLLW) and Transuranic Mixed Waste (TMW).

COMMENTS ON PROPOSED TPA CHANGES.

As Hanford clean-up progresses, the TPA agencies are continually faced with important decisions on how to manage radioactive and hazardous wastes. The following comments address specific aspects of the most recent round of proposed TPA changes.

Response to Introductory Statement: Thank you for your comments and continued commitment to Hanford cleanup.

Comment 18.1: A Comprehensive Approach: For the first time, the TPA will have milestones that take a comprehensive approach to Central Plateau soils, facilities, and groundwater. Columbia Riverkeeper commends the TPA agencies for taking this critical step in improved management of the Hanford cleanup process.

Response to Comment 18.1: The Parties appreciate your support for the comprehensive approach to Central Plateau cleanup.

Comment 18.2: Changing a Federal Standard: The TPA agencies are proposing a major change to how waste is categorized. Many of the contaminated Central Plateau soil sites are classified under Washington State and federal hazardous waste law—the Resource Conservation and Recovery Act (RCRA). Under the new proposal, the soil sites would be classified using the federal Superfund law (CERCLA). Columbia Riverkeeper opposes this change as the Superfund law requirements would be less stringent (*i.e.,* less rigorous monitoring and waste retrieval requirements).

Response to Comment 18.2: The comment suggests that some units are being reclassified from RCRA to CERCLA. While Ecology retains corrective action jurisdiction over all past-practice units, the TPA changes do shift the designation of some units:

- The TPA currently divides past practice units between the RCRA and CERCLA past practice (called RPP and CPP, respectively) processes The TPA changes do not affect some of the units currently designated for CPP (i.e., leaves them in the CPP process).

- The TPA changes reassign some units from the RPP process to a joint RCRA-CERCLA past practice (R-CPP) process. These RPP units will continue to be subject to RCRA corrective action authority and Corrective Action Decisions (CADs) will be issued along with CERCLA RODs. None of the RPP Operable Units are being re-designated as CPP Operable Units. Some of the waste sites that were in the RPP operable units are being transferred to CPP operable units. However, there are many more waste sites in CPP operable units moving to R-CPP operable units than from RPP to CPP operable units.
- The TPA changes reassign some units from the CPP to the joint R-CPP process.

Ecology uses the remedial action process identified in the TPA Action Plan to satisfy corrective action requirements. The state will apply corrective action decision-making authority through the CAD/ROD approach for RCRA past practice units.

The comment also states "Superfund law requirements would be less stringent (*i.e.,* less rigorous monitoring and waste retrieval requirements)." The Parties respectfully disagree. Paragraph 17 of the TPA expressly provides that the Parties intend that activities covered by Part Three of the TPA, which includes CERCLA Remedial Actions, will satisfy the corrective action requirements of the State HWMA and RCRA, and that MTCA shall be incorporated as appropriate as applicable or relevant and appropriate requirements . TPA Action Plan Section 5.4 also establishes the requirement for consistency between the RPP and CPP processes: "The corrective action process selected for each operable unit shall be sufficiently comprehensive to satisfy the technical requirements of both statutory authorities and the respective regulations."

Comment 18.3: EPA Involvement: The federal Superfund law requires plans that guide cleanup at Hanford. EPA—the regulating agency—normally drafts the clean-up plans. Under the TPA agencies' proposal, the U.S. Department of Energy (USDOE)—the *regulated* agency—would draft the plans and EPA would "approve" these plans. This raises serious concerns about oversight and bias from the plans' inception. Columbia Riverkeeper opposes this approach to cleanup plans at Hanford.

> ***Question #1:*** What is EPA's rationale for allowing USDOE to draft the clean-up plans? Please explain.
> ***Question #2:*** What are examples of other cleanup sites where EPA consents to the responsible party (*i.e.*, the polluter) preparing the cleanup plans? Please explain.
> ***Question #3:*** To the extent EPA identifies cleanup sites under Question #2, are these sites similar or different from Hanford, the world's most contaminated site? Please explain

Response to Comment 18.3: At Idaho National Laboratory (INL) DOE prepares the first draft of records of decision. INL has been on the National Priority List as long as Hanford, covers 890 square miles (compared to Hanford's 586 square miles), and deals with hazards similar in size and complexity to Hanford, including cleanup and disposal of nuclear reactors, remediation of soils contaminated with chemicals and radionuclides, and cleanup of buried transuranic wastes. Preparation of the first draft of the record of decision by the lead federal agency is also standard practice at a number of Department of Defense installations, including Fairchild Air Force Base near Spokane which has a Federal Facility Agreement with EPA Region 10 and the State of Washington. However, since a number of commenters raised concerns about DOE writing the initial drafts of RODs, the Parties agreed to revise the change form so it provides that EPA will write the draft ROD or it will be written jointly by

EPA and Ecology, if Ecology is the lead regulatory agency. The lead regulatory agency in cooperation with DOE (and EPA if Ecology is the lead regulatory agency), will finalize the ROD.

Comment 18.4: Need for Enforceable Deadlines: The availability of federal funding under the American Recovery and Reinvestment Act is impacting cleanup at Hanford. Nonetheless, the TPA-agencies are *not* proposing enforceable cleanup dates. Instead, the TPA-agencies want "target" dates for cleaning-up Mixed Low-Level and Transuranic Mixed Wastes. Under the agencies' proposal, the proposed TPA changes would delay enforceable milestones for about four years (from 2012 to 2016). The TPA changes proposal also includes a 2035 deadline to remove all legacy transuranic mixed waste from Hanford. Columbia Riverkeeper strongly supports enforceable deadlines, which encourage accountability and consequences if USDOE fails to meet deadlines. Given the public health and natural resource threats posed by radioactive and hazardous waste, enforceable clean-up deadlines are a critical component to achieving timely, effective cleanup at Hanford.

> ***Question #4:*** How will USDOE be held accountable if it does not meet its unenforceable "target" deadlines? Please explain.

Response to Comment 18.4: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 18.5: Storage in the Event of Missing Deadlines: Columbia Riverkeeper is particularly concerned about how USDOE's plans to store Mixed Low Level and Transuranic Waste if the target deadlines are not met.

> ***Question #5:*** If DOE misses a "target" deadline, how will storage activities impact human health and the Columbia River? Please explain.

Response to Comment 18.5: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 18.6: Protecting Public Safety: Columbia Riverkeeper concurs with the Hanford Advisory Board's (HAB) recommendations on aligning USDOE's baseline with the Waste Isolation Pilot Plant (WIPP) transuranic waste repository schedule. *See* HAB Advice #234 (Adopted June 4, 2010). Specifically, the current legally required WIPP closure date is 2030. Yet the TPA change package extends the final Hanford shipments of transuranic mixed waste to 2035.

> ***Question #6*:** Do the TPA agencies intend to align the WIPP repository schedule with the TPA change package proposal? If not, what is the contingency plan?
>
> Columbia Riverkeeper also concurs with the Hanford Advisory Board's recommendation that: (1) the TPA agencies require early shipment of available transuranic waste to minimize the risk of WIPP closing prior to all Hanford shipments; and (2) the TPA agencies continue to improve the safety of WIPP shipments, such as avoiding inclement conditions.

Response to Comment 18.6: See *Comments and Responses to Proposed TPA Changes for Mixed Low-Level Waste and Transuranic Mixed Waste (www.hanford.gov/page.cfm/TriParty under Modifications for Public Comment)*

Comment 18.7: Systematic Approach to Vadose Zone Cleanup: Columbia Riverkeeper concurs with the Hanford Advisory Board's recommendation to develop a systematic approach to vadose zone cleanup. To date, DOE lacks a comprehensive, integrated cleanup approach to the vadose zone. The TPA agencies should "develop a systematic approach to vadose zone cleanup that includes site-specific goals, schedules for additional characterization and a range of cleanup technologies (including those found outside of Hanford)." *See* HAB Advice #231 at 3.

> ***Question #7:*** Are the TPA agencies considering the establishment of a separate vadose zone operable unit? *See* HAB Advice #231 at 3. If not, please explain why.

Response to Comment 18.7: The Parties recognize that the contamination in the deep vadose zone must be addressed and have established the Deep Vadose Zone Operable Unit (200-DV-1 OU). The Parties will use a systematic approach to the 200-DV-1 OU. A RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS) & Remedial Investigation/ Feasibility Study (RI/FS) work plan (TPA milestone M-015-110A) for the 200-DV-1 OU is required. The work plan will include technology screening that identifies technologies applicable for characterization, treatment and monitoring of deep vadose zone contaminants. DOE began this screening process by holding a Deep Vadose Zone Technical Forum on July 20-21, 2010. DOE will provide periodic updates on progress to Tribal Nations, the Hanford Advisory Board, the Oregon Hanford Cleanup Board and State of Oregon, and in other appropriate public forums. Information will also be made available through DOE's website at www.Hanford.gov/ .

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