Proposed Consent Decree and Tri-Party Agreement Modifications for

Hanford Tank Waste Treatment

Public Comment Period October 1, 2009 to December 11, 2009





Modifications related to Hanford Tank Waste Treatment

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Modifications related to Hanford Tank Waste Treatment

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M-62-09-01 Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-062-00 for Pretreatment Processing and Vitrification of Hanford High Level (HLW) and Low Activity (LAW) Tank Wastes, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

M-90-09-01 Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-090-00 for Acquisition of Facilities for Storage of Hanford Site IHLW and ILAW and Disposal of ILAW, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

P-09-09-02 Hanford Federal Facility Agreement and Consent Order Modifications to Action Plan Section 9, Primary Document List, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

I-09-01 Hanford Federal Facility Agreement and Consent Order Modifications to Action Plan Appendix I, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Background Information (not undergoing public comment):

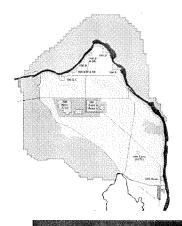
Settlement Coordination Letter – U.S. Department of Justice

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Settlement Enclosures B, C and E (superseded by TPA change forms)

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Proposed Consent Decree between the U.S. DOE and the State of Oregon in Case No. 08-5085-FVS



Proposed Settlement for Hanford Cleanup

U.S. Department of Energy • Washington State Department of Ecology • U.S. Environmental Protection Agency

What's this proposed settlement about?

These new commitments would address important activities that are needed to protect human health and the environment. The settlement will impose a new, enforceable and achievable schedule for tank waste cleanup at Hanford. It has two parts. First, it proposes a new Consent Decree between Washington and the US Department of Energy (USDOE). Second, it proposes changes to the Tri-Party Agreement (TPA).

What does the settlement include?

Consent Decree

The Consent Decree has milestones (commitments with deadlines) for the construction, commissioning, and startup of the Waste

Treatment Plant (WTP), as well as continued retrieval of waste from Hanford's single-shell tanks. The milestones require USDOE to:

For the Waste Treatment Plant:

- Meet milestones for the WTP's facilities to keep construction on pace.
- Start treating tank waste through the WTP by 2019.
- Achieve initial plant operations by 2022.

For single-shell tank waste retrievals:

- Retrieve the waste from the remaining 10 tanks in the "C" tank farm by 2014.
- Identify, by 2014, nine other single-shell tanks to retrieve waste from.
- Finish retrieving the waste from those nine other tanks by 2022.

The Consent Decree also covers reporting requirements for waste retrievals from single-shell regulatory coordination, and a process to resolve disputes between the agencies.





Public Comment

The Tri-Party Agreement agencies want your feedback.

The public comment period is from October 1 through December 11, 2009.



The proposed agreement lays out the work and schedule for cleaning up the waste in Hanford's underground tanks, and it puts some of that work under the supervision of the court.

Why should

you care about these

proposed changes?

Tri-Party Agreement

The settlement among the TPA parties also includes milestones that will go into effect under the TPA once the Consent Decree is approved by the Court. The

proposed changes will add milestones to the Tri-Party
Agreement that require USDOE to:

For the Lifecycle Report:

The agreement also has a new Lifecycle Scope, Schedule, and Cost Report milestone. This milestone requires USDOE to, for the first time in one place, account for all the actions necessary to complete the Hanford cleanup mission, with a detailed cost estimate. This report will provide a better understanding of the resources necessary for getting Hanford cleanup accomplished, which is critical to getting the job done.

- Submit to Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency a report setting out the life-cycle scope, schedule and cost to finish Hanford's cleanup mission.
- The report must reflect all the actions USDOE must take to fully meet all applicable environmental obligations, including those under the TPA. The first report is due no sooner than nine months after the approval of the milestone, and USDOE must submit the report every year by January after that.

For Tank Waste Treatment:

- Finish treating waste from Hanford's underground tanks by 2047.
- Starting in 2023, demonstrate each year (based on a rolling 3-year average) that WTP and any supplemental treatment is operating at rates that will meet or beat the 2047 deadline, or describe actions to increase the rate to achieve the end date.
- Twelve months after the agreement is finalized, agree on near-term (2011-2016) actions that may be appropriate to enhance WTP treatment or evaluation of supplemental treatment options.
- Select supplemental treatment for Low Activity Waste and permit, design, construct, and operate this facility.
- Starting in 2011, develop a System Plan for tank waste treatment and retrieval activities. The plan must also evaluate contingency needs, system enhancements and reducing total treatment and retrieval durations.

For Tank Waste Retrievals and Tank Farm Closures:

- Complete closure of Hanford's C Tank Farm by 2019.
- Finish negotiations for interim milestones by 2022 to close all the other tank farms at Hanford.

<u>Tri-Party Agreement</u> – The Hanford Federal Facility Agreement and Consent Order. This landmark 1989 agreement defines roles and sets cleanup schedules that will bring the US Department of Energy's Hanford Site into compliance with key federal environmental laws.

<u>Tri-Party Agencies</u> – The agencies that signed and are bound by the Tri-Party Agreement.

They are the U.S. Environmental Protection Agency, Washington state's Department of Ecology, and two branches of USDOE at Hanford – the Office of River Protection for tank waste, and the Richland Operations Office for the rest of Hanford cleanup.

<u>Consent Decree</u> – A consent decree is an agreement resolving a lawsuit alleging that the defendant has violated the law. The agreement is accepted and issued by the court as the court's own order, with the court retaining oversight and enforcement authority over the consent decree until it is dismissed.

Like the TPA, it is a legal agreement that resolves legal claims between parties. But unlike the TPA:

- Once approved by the court, it becomes an order of the court.
- If the defendant violates a requirement, the defendant has not only violated a legal agreement, the defendant has directly violated a court order.
- As a result of violating a court order, the defendant is subject to sanctions from the court.

<u>Waste Treatment Plant</u> – The massive construction project to build the treatment facilities to immobilize Hanford's tank waste in a glass formation.

<u>Tank farm</u> – A grouping of underground storage tanks. The 177 tanks are in 17 different groups, or farms. The largest tank farm has 18 tanks and the smallest has three tanks.

- Remove the waste from all 149 single-shell tanks by 2040.
- Close all of Hanford's single-shell tank farms by 2043.
- Close all of the double-shell tank farms by September 2052.
- Work with Ecology to speed up the 2040 deadline.
- Submit retrieval data reports for the 19 single-shell tanks (the 10 in "C" tank farm, and the 9 others to be identified by 2014) covered by the Consent Decree.
- Place interim barriers over other single-shell tank farms as appropriate to prevent water from driving contamination deeper into the soil.
- Remove pumpable liquids from catch tanks.
- Do more work to assess the integrity of the single-shell tanks.

A catch tank captures and collects liquids from any spills from equipment or pipelines (e.g., leaks to the secondary containment). Then workers can transfer the liquid back to the right storage vessel or tank.

How the System Plans Work:

New Tri-Party Agreement milestones require USDOE and Ecology to periodically re-evaluate whether it may be possible to complete tank retrievals and waste treatment sooner than the proposed milestone dates, and if so to negotiate new dates. This "System Plan" effort will require USDOE to account for how tank waste is going to be retrieved and treated on schedule. At the same time, the System Plan will look for ways to speed up the cleanup and do the work in better ways. This is a holistic joint planning exercise new to Hanford.

Why a Consent Decree?

Perhaps the most important feature of the proposed settlement agreement is that the schedule for critical activities over the next 12 years will be provided in a Consent Decree in federal court, with judicial oversight.

Key Tri-Party Agreement and Consent Decree Milestones

	Curre Mileston		New Milestone Date
✓	Retrieve waste from C Farm Single-shell tanks	9/30/2006	2014 (CD)
✓	Complete WTP construction, and hot start	1/31/2011	2019 (CD)
✓	Achieve initial plant operations	new milestone	2022 (CD)
✓	Complete retrieval of waste from 9 other	new milestone	2022 (CD)
	single-shell tanks		
✓	Retrieve waste from all single-shell tanks	9/30/2018	2040 (TPA)
✓	Treat all tank waste	12/31/2028	2047 (TPA)
✓	Complete closure of all double-shell tank farms	new milestone	2052 (TPA)

Wasn't there another big change to the Tri-Party Agreement recently?

Yes. The TPA has been changed several times over the years. In the spring, a comment period for a different change package was held, which became final on August 11, 2009. Those changes set new and accelerated groundwater and Columbia River protection milestones, delayed some other milestones in retrieving buried waste and cleaning up waste sites on the Central Plateau, and realigned cleanup work along the river near the 100 K reactor area. By the end of the year there will be another package, with a strategy for the central plateau.

The change package today bundles together tank retrieval and treatment milestones resulting from the settlement agreement. While this approach requires a number of comment periods, it makes sense to put in place enforceable schedules as soon as possible after they're negotiated.

Recently there have been a number of other comment periods, and you can keep up with them through USDOE's Hanford Events Calendar.

How do these changes relate to other big decision documents?

Tank Closure and Waste Management Environmental Impact Statement (EIS)

When final, the EIS will support decisions for tank closure, onsite waste disposal, and supplemental tank waste treatment (and for the Fast Flux Test Facility, which is not covered by the TPA). The Tri-Party Agreement lays out the schedule for carrying out those decisions.

As part of the proposed settlement, USDOE would include in the EIS a preferred alternative of not importing certain waste to Hanford at least until the WTP is operational. Once USDOE issues the draft EIS, and if public comment doesn't identify a reason for not executing the consent decree or Tri-Party Agreement changes, the state and USDOE will move to enter the consent decree with the federal court, and will make the Tri-Party Agreement changes final once the court enters the Consent Decree.

How did we get to this point?

In 2007, it was clear USDOE could not meet some of the deadlines in the Tri-Party Agreement. The Tri-Party agencies began negotiations for new milestones for:

- Building and running the Waste Treatment Plant.
- Retrieving waste from single-shell tanks.
- Cleaning up contaminated groundwater.
- Preparing a life-cycle scope, schedule and cost report.

In the negotiations, the agencies reached alignment on many issues. They consulted with the tribal nations and the state of Oregon, and received feedback from stakeholders and the public on the proposals they had reached by that point. After the consultations, the TPA agencies continued negotiations. But they were unable to reach final agreement due to a disagreement on some key issues.

As a result, the state of Washington filed a lawsuit against USDOE in November 2008. Soon after that the TPA agencies restarted negotiations and successfully resolved the remaining issues. The result of their efforts is the proposed Consent Decree and the proposed changes to the Tri-Party Agreement described above.

How can I comment on the proposed settlement?

We are holding a comment period from October 1 through December 11, 2009.

or

You can submit comments to the Tri-Party Agreement agencies in writing via fax, email, or U.S. Postal Service. All comments go to all of the Tri-Party Agreement agencies, so you only need to submit them once. Send them to:

Lori Gamache
Department of Energy
Office of River Protection
PO Box 450, MSIN H6-60
Richland WA 99352
fax 509-376-8142
Email: TPACH@rl.gov

Annette Carlson Washington Department of Ecology 3100 Port of Benton Blvd Richland WA 99354 fax 509-372-7971 Email: Annette.Carlson@ecy.wa.gov

We will hold public meetings in the Tri-Cities, Seattle, and Spokane, Washington, and in Hood River and Portland, Oregon. Dates, locations, and times will be sent out prior to the meetings.

How do I get more information?

The proposed Consent Decree, proposed amendments to the Tri-Party Agreement and supporting information are available online, by request via phone, and at Hanford's Information Repositories.

$\qquad \qquad \Box >$	Online: http://www.ecy.wa.gov/programs/nwp/2008lawsuit_settlement.htm
\Box	Phone – Call the Hanford Cleanup Line – 800-321-2008.

HANFORD PUBLIC INFORMATION REPOSITORIES

Richland

Seattle

2770 University Dr.

Portland

Portland State University Branford Price Millar Library 1875 SW Park Ave. Contact: Don Frank 503-725-470

Contact: Don Frank 503-725-4709 Map: http://www.pdx.edu/map.html

Spokane

Gonzaga University Foley Center 502 E. Boone Ave. Contact: Linda Pierce 509-323-3834

Map: http://tinyurl.com/2c6bpm

Suzz

Suzzallo Library
Government Publications Division
Contact: Eleanor Chase 206-543-4664
Map: http://tinyurl.com/m8ebj

U.S. Department of Energy Reading Room

Contact: Janice Parthree 509-372-7443

Map: http://tinyurl.com/2axam2

Consolidated Information Center, Room 101-L

Administrative Record and Public Information Repository:

Address: 2440 Stevens Center Place, Room 1101, Richland, WA.

Phone: 509-376-2530

Web site address: http://www2.hanford.gov/arpir/

What happens next?

After the comment period closes, the comments received will be considered. After this consideration, and assuming there is no comment-based reason to reconsider finalizing the proposed agreements, a request will be made that the court enter the proposed Consent Decree. When it does, the modified Tri-Party Agreement will become final, putting both documents into effect. The Tri-Party Agencies will prepare a responsiveness summary for the changes to the Tri-Party Agreement.

Settlement Agreement Fact Sheet U.S. Department of Energy Richland Operations Office P.O. Box 550, A7-75 Richland, WA 99352

Proposed Consent Decree

No. 08-5085-FVS

between the U.S. Department of Energy and the State of Washington

1 UNITED STATES DISTRICT COURT 2 EASTERN DISTRICT OF WASHINGTON 3 STATE OF WASHINGTON, NO. 08-5085-FVS DEPARTMENT OF ECOLOGY, 4 CONSENT DECREE Plaintiff. 5 v. 6 STEVEN CHU, Secretary of the United States Department of Energy, and the UNITED STATES 8 DEPARTMENT OF ENERGY, 9 Defendants. 10 T. INTRODUCTION 11 WHEREAS, Plaintiff State of Washington, through its Department of 12 Ecology (State or Ecology), has filed a complaint that alleges violations by 13 Defendants Secretary of Energy Steven Chu and the United States Department 14 of Energy (collectively DOE) of the Hanford Federal Facility Agreement and 15 Consent Order (HFFACO) and regulations promulgated under the Hazardous 16 Waste Management Act (HWMA), Chapter 70.105 Revised Code of 17 Washington (RCW), such regulations which are authorized under the Resource 18 Conservation and Recovery Act (RCRA) pursuant to 42 U.S.C. § 6926; and 19 WHEREAS, on May 15, 1989, DOE and Ecology entered into the 20 The HFFACO establishes milestones for DOE to, among other 21 matters, construct and operate a Waste Treatment Plant (WTP) to treat (vitrify) 22

all Hanford tank waste by December 31, 2028, and to complete waste retrieval from 149 single-shell tanks (SSTs) by September 30, 2018; and

WHEREAS, the WTP is a highly complex facility and a number of challenges in its construction have arisen since the HFFACO was signed. DOE has previously requested and Ecology has agreed to a number of schedule extensions using procedures specified in the HFFACO; and

WHEREAS, DOE is behind schedule with the WTP construction, having not completed certain WTP-related HFFACO milestones, and requires additional time beyond the schedule in the HFFACO as of April 3, 2009 to complete WTP construction. To date, the WTP Complex is approximately 44% constructed and 75% designed; and

WHEREAS, although DOE has completed retrieval of waste from seven single-shell tanks, DOE is behind schedule with waste retrievals, having not completed certain retrieval-related HFFACO milestones, and requires additional time beyond the schedule in the HFFACO as of April 3, 2009 to retrieve waste from all of Hanford's SSTs; and

WHEREAS, Ecology alleges that DOE's continued storage of land disposal restricted tank waste, as well as the conditions of and continued storage of waste in Hanford's SSTs, violate applicable regulations promulgated under the HWMA and authorized under RCRA; and

WHEREAS, Ecology and DOE (the Parties) wish to resolve this action without litigation and have, therefore, agreed to entry of this Consent Decree

without adjudication of any issues of fact or law contained herein. This Decree is filed to resolve litigation, solely for the matters covered by this Decree, between the State and DOE regarding certain milestones in the HFFACO and alleged violations of those portions of the regulations which underlie these milestones and portions of milestones in the HFFACO; and

WHEREAS, certain HFFACO modifications become effective simultaneous with entry of this Decree, regarding matters not covered by this Decree.

NOW THEREFORE, it is hereby ordered, adjudged, and decreed as follows:

II. JURISDICTION

The Court has jurisdiction over the subject matter and the Parties to this Decree. Venue is proper in the United States District Court for the Eastern District of Washington.

III. PARTIES BOUND

This Decree applies to and is binding upon the United States Department of Energy, the State of Washington, Department of Ecology, and their successors. DOE remains obligated by this Decree regardless of whether it carries out the terms through agents, contractors, and/or consultants. This Decree neither applies to nor is binding upon any other agency of the United States. Nothing in this Consent Decree shall be construed to make any person

or entity not executing this Consent Decree a third-party beneficiary to this Consent Decree.

IV. WORK TO BE PERFORMED AND SCHEDULE

A. Waste Treatment Plant (WTP) Construction and Startup.

- 1. In accordance with Appendix A to this Decree, DOE shall achieve "Hot Start of Waste Treatment Plant" by December 31, 2019, and achieve "initial plant operations" of the WTP no later than December 31, 2022.
- 2. "Hot Start of Waste Treatment Plant" means the initiation of simultaneous operation of the Pretreatment (PT) Facility, High-level Waste (HLW) Facility and Low-activity Waste (LAW) Facility (including as needed the operations of the Analytical Laboratory (LAB) and the Balance of Facilities) treating Hanford tank wastes and producing a waste glass product.
- 3. "Initial plant operations" under this Decree is defined as, over a rolling period of at least 3 months leading to the milestone date, operating the WTP to produce high-level waste glass at an average rate of at least 4.2 Metric Tons of Glass (MTG)/day, and low-activity waste glass at an average rate of at least 21 MTG/day.
- 4. Each milestone set forth in Appendix A shall be completed by the specified date for that milestone in Appendix A. In the event that the State seeks to enforce an interim milestone in Appendix A, it shall be a defense to such enforcement (such that failure to meet the interim milestone by that date will not constitute a violation of the Consent Decree) if DOE demonstrates that

it will (a) complete the interim milestone as soon as practicable and (b) notwithstanding the missed interim milestone date, achieve WTP hot start by December 31, 2019, and initial plant operations of the WTP no later than December 31, 2022, as required in paragraph 1 above.

B. Single-shell Tank (SST) Waste Retrievals.

- 1. In accordance with Appendix B, no later than September 30, 2014, DOE shall complete retrieval of tank waste from the ten (10) remaining SSTs in Waste Management Area C for which waste has not yet been retrieved.
- 2. In accordance with Appendix B, no later than December 31, 2022, DOE shall complete retrieval of tank waste from nine (9) additional SSTs selected by DOE.
- 3. For purposes of paragraph 2 above, the tanks shall be selected by DOE after consultation with Ecology. The selected tanks shall include only 100 series tanks (excluding tank S-102), with consideration given to optimizing WTP waste feed blending and addressing tanks that pose a high risk due to tank contents, previous leaks, or the risk of future leaks. Once tanks have been selected, DOE may substitute alternative tanks, but such substitution shall be subject to the consultation and selection criteria of this paragraph.
- 4. a. At least 180 days before DOE plans to initiate the installation of equipment for retrieval of waste from a tank or set of tanks covered by Section IV-B of this Decree, DOE shall submit to Ecology, for its approval, a Tank

Waste Retrieval Work Plan (TWRWP) that sets out in a Part 1 and a Part 2 of the TWRWP the information required in Part 1 and Part 2 of Appendix C.

The TWRWP shall be deemed approved if Ecology notifies DOE of its approval or if 60 days have elapsed after the date DOE submitted the TWRWP to Ecology and Ecology has not disapproved the TWRWP within that 60-day period.

b. In the event of a disapproval by Ecology, within 30 days of such disapproval, DOE shall submit a revised TWRWP for a tank or set of tanks covered by Section IV-B of this Decree addressing Ecology's comments. If DOE and Ecology cannot resolve the concern(s) raised by Ecology within 60 days of Ecology's initial disapproval, the Parties shall utilize Section IX of the Decree and the Court shall resolve their dispute under Section IX of the Decree regarding the disputed elements of Part 1 or Part 2 of the TWRWP. Once the TWRWP is established for a tank or set of tanks covered by Section IV-B (either by approval of Ecology or after dispute resolution by the Court under Section IX of the Decree), DOE may start and carry out tank waste retrieval activities for the tank(s) addressed by the TWRWP.

c. Notwithstanding the provisions of Section IX-C, any period of delay in resolving a dispute regarding approval of a TWRWP beyond 180 days after DOE submits a TWRWP for a tank or set of tanks covered by Section IV-B to Ecology shall extend by a corresponding period the affected milestones in this Decree, but only for that portion of time that this corresponding period extends

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beyond the date DOE planned to initiate the installation of equipment for tank waste retrieval from that tank or set of tanks covered by Section IV-B of the Decree. For purposes of this paragraph, "affected milestones" are defined as Section IV-B-1, Section IV-B-2, Milestone B-1in Appendix B, Milestone B-3 in Appendix B, or Milestone B-4 in Appendix B, involving the tank or set of tanks addressed in the TWRWP. Ecology may petition the Court to argue that an extension under this default schedule adjustment should not apply due to the delay in establishing a TWRWP (either by approval of Ecology or after dispute resolution by the Court under Section IX of the Decree). In any such petition, the Court should determine whether, notwithstanding the delay in establishing the TWRWP, DOE can still meet the scheduled date in the affected milestones by exercising reasonable diligence under the circumstances. The Court may consider any allegation concerning whether DOE or the State failed to exercise reasonable diligence in producing or reviewing the TWRWP and resolving any disputes.

d. Nothing in paragraph 4 shall affect DOE's right to relief under Section VI, VII, VIII, and IX of the Decree, to the extent such relief would otherwise be available.

5. When DOE completes retrieval of waste from a tank covered by this Decree, DOE will submit to Ecology a written certification that DOE has completed retrieval of that tank. For purposes of this Consent Decree, "complete retrieval" means the retrieval of tank waste in accordance with Part 1

of Appendix C and with the retrieval technology/systems that were established by Part 1 of the TWRWP either by approval of Ecology or after dispute resolution by the Court under Section IX of the Decree.

C. Reporting.

- 1. <u>Semi-Annual Reports</u>. DOE shall, on a semi-annual basis, submit to Ecology a written report documenting WTP construction and startup activities and tank retrieval activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period and shall include:
 - a. A brief description of project accomplishments and project issues encountered during the reporting period and/or expected in the next six (6) months;
 - b. A definitive statement describing whether or not DOE has complied with milestones that have already come due as of the date of the report, and how any missed milestones may affect compliance with other milestones;
 - c. Where applicable, a description of actions initiated or otherwise taken to address any schedule slippage;
 - d. Budget/cost status; and
 - e. Copies of written directives given by DOE to the contractors for work required by this Decree.

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- 2. Monthly reports. DOE shall, on a monthly basis, submit to Ecology a written summary report (e.g., approximately 10 to 15 pages in length) documenting WTP construction and startup activities and tank retrieval activities covered by this Decree. This report may be combined with the reports already provided by DOE to Ecology pursuant to Section 4 of the HFFACO The monthly report shall address: (a) cost and schedule Action Plan. performance (earned value management system graphs) for each major activity; (b) significant accomplishments during the prior month; and (c) significant planned activities for the next month.
- 3. In the event DOE determines that a serious risk has arisen that DOE may be unable to meet a schedule as required in Section IV, DOE shall notify Ecology in a timely manner, as described in Section VII-C.

D. Regulatory Coordination

For the matters covered by this Decree, the Parties shall ensure, to the maximum extent possible, that any existing or required permit, order, or approval associated with constructing and operating the WTP, SST waste retrieval, and reporting is consistent with the requirements of this Consent Decree.

V. ACCESS

Without limitation on any authority conferred on it by law, Ecology shall have authority to enter the Hanford Site at all reasonable times for the purposes of, among other things: (1) inspecting records, operating logs, contracts, and other documents relevant to the implementation of this Decree, subject to applicable limits on classified and confidential information; (2) reviewing the progress of DOE in implementing this Decree; (3) conducting such tests as Ecology deems necessary regarding the work covered herein (provided that such tests do not interfere with DOE's ability to meet the schedule); and (4) verifying data relating to the work covered herein submitted to Ecology by DOE. DOE shall honor all requests for access by Ecology's representatives, conditioned only upon proof of such status, and conformance with Hanford Site safety and security requirements. Ecology's representatives shall minimize interference with operations while on the Hanford Site. DOE reserves the right to require Ecology's representatives to be accompanied by an escort while on the Hanford Site. DOE shall provide escorts in a timely manner.

VI. JOINT THREE YEAR REVIEWS

The Parties shall meet on mutually agreeable dates that are approximately three years after the entry of this Decree, and on dates that are approximately at three year intervals thereafter, and at such other times upon which the Parties may agree, to review the requirements of the Consent Decree and to discuss the best available information and any circumstances that may necessitate the reconsideration of and/or modification to the outstanding requirements of this Decree. DOE shall provide an update of all activity to date, address any schedule changes, describe unforeseen technological and logistical difficulties, and explain any good cause reasons for modifications. Every effort will be

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made by the Parties to seek agreement to any modifications to the Consent Decree. Any modifications to the Decree agreed to by the Parties as a result of this process shall be effectuated through a joint motion to modify the Decree and any disputes as to whether such a modification is appropriate shall be resolved through the process set forth in Section IX. The notice and comment provisions of Section VII-A-2 apply to this section.

VII. AMENDMENT OF DECREE

A. Amendment Process.

- 1. This Decree may be amended by mutual agreement of the State and DOE upon approval by the Court. The party proposing the amendment shall provide the proposal in writing to the other party, along with a justification for the amendment. Proposals to amend the schedule shall be submitted in accordance with, and shall be evaluated under the criteria described in, paragraphs B through G, below. Within ten (10) working days of receipt (except as provided in Section VII-F), the other party shall notify the party proposing the amendment whether or not the amendment is acceptable.
- 2. If the amendment is acceptable, then the State shall determine, in its sole discretion, whether the amendment constitutes a significant modification to the Consent Decree. If the amendment is significant, then the State and DOE shall take public comment on the amendment. Unless public comments disclose facts or considerations which indicate the amendment is inappropriate, the Parties shall submit the amendment to the Court for its

app	roval.	If, in the	view of	either	party,	public	comn	nents	disclose	e facts or
con	sideratio	ons which	indicate	that th	ne ame	ndmen	t is in	approj	oriate, a	and if the
Par	ties are	unable to	agree on	revisio	ons to 1	the prop	posed	amen	dment to	o address
the	concern	s raised d	luring the	publi	c comi	ment pe	eriod,	then t	he prov	isions of
Sec	tion VII	-A-3 shall	apply.							

- 3. If the amendment is not acceptable to the other party, the other party shall explain in writing its reasons for disagreeing with the amendment. In such an event, the party proposing the amendment may invoke the dispute resolution procedures of this Decree.
- 4. The time periods in Section VII may be extended by mutual agreement of the Parties.

B. Amendment of Schedule.

The schedules in Section IV may be amended under this section if (1) a request for amendment is timely, and (2) good cause exists for the amendment.

C. Timeliness.

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To be timely, a request must be submitted to the other party as expeditiously as practicable within a reasonable time from when the party learns that underlying facts give rise to the need for the schedule amendment.

D. Good Cause.

1. "Good cause" for schedule amendment exists when the schedule cannot be met due to circumstances or events either (1) unanticipated in the

development of the schedule in Section IV of this Consent Decree, or

(2) anticipated in the development of the schedule, but which have a greater impact on the schedule than was predicted or assumed at the time the schedule was developed (hereafter collectively referred to as "circumstances and events"). However, in any case, good cause does not exist if DOE can nonetheless meet the existing schedule by responding with reasonable diligence to such circumstances or events. Likewise, good cause does not exist if DOE could have met the existing schedule if it had responded with reasonable diligence to the circumstance(s) and event(s) when they occurred. Efficient management practices are an appropriate consideration in determining whether reasonable diligence has been exercised.

2. Both Parties to this Consent Decree understand that to develop this schedule, assumptions had to be made about a broad range of circumstances and events including unforeseen circumstances that might arise which could affect the schedule. As part of this process, further assumptions had to be made about the likelihood of such circumstances and events occurring and the types of concerns they may raise, and if they did occur, what effect that might have on the schedule. It is possible that circumstances and events will arise whose effect on the schedule exceeds an allowance for uncertainty beyond what is now included in the schedule.

- 3. If circumstances and events occur that will delay the completion of work beyond the deadlines in the schedule, and the delay cannot be or could not have been avoided by DOE responding to the circumstances and events with reasonable diligence, then "good cause" exists for extending the schedule. Although such circumstances and events cannot, by their nature, be fully anticipated and controlled, the general types of circumstances and events that may give rise to "good cause" include, but are not limited to: safety concerns; requirement changes and unknown technical obstacles; equipment failures; market conditions and equipment responsiveness; supplier regulatory actions/inactions or legal intervention; and labor shortages. Appendices A and B set out some of the assumptions and concerns for these types of circumstances and events.
- 4. The identification in this Decree and its Appendices of certain circumstances and events and certain concerns and assumptions regarding circumstances and events does not create a presumption that any particular circumstance, event, concern, or assumption described in this Decree or its Appendices will provide the basis for a good cause extension in any particular case.
- 5. In any request for amendment, DOE shall identify the good cause that, in its view, justifies amendment. If the State agrees that good cause exists, the Parties shall agree to an appropriate amendment. If the

State does not agree that good cause exists, DOE may invoke the dispute resolution process set forth in Section IX of this Decree.

E. Force Majeure.

The Parties agree that some events are of such a magnitude that they will be presumed to justify amendment. Extensions of the schedule shall be equal to the number of days during which work is interrupted due to *force majeure* events. These events include, but are not limited to:

- 1. Acts of God, fire, war, insurrection, civil disturbance, or explosion;
- 2. Significant adverse weather conditions that could not have been reasonably anticipated;
 - 3. Restraint by court order;
- 4. Inability to obtain, at reasonable cost and after exercise of reasonable diligence, any necessary authorizations, approvals, permits or licenses due to action or inaction of any governmental agency or authority other than DOE or its authorized contractors;
- 5. Any strike or similar work stoppage resulting from labor dispute, and
- 6. Government shutdown or a government- or agency-wide prohibition of work by essential or non-essential personnel.

Any amendment requested on the grounds that one of the events listed above has occurred will be granted unless the State does not agree

that a *force majeure* event has occurred. DOE may pursue dispute resolution regarding this determination under Section IX of this Decree. If the dispute is not resolved by mutual agreement of the Parties, DOE may seek court review, and if the Court determines that, under the pertinent facts and circumstances, the event does constitute a *force majeure* event, then the Court shall approve the requested extension. Whenever a *force majeure* event occurs, DOE shall exercise its best efforts to complete the affected work in accordance with the original schedule.

F. Safety Concerns.

If a safety concern arises that affects or will likely affect the schedule in Section IV, DOE shall take the following steps:

- 1. As soon as a safety concern is identified, DOE shall notify Ecology that an issue exists, the nature of the issue, and any actions taken to respond to the issue.
- 2. No more than 45 days after the notification in Section VII-F-1, DOE shall develop and submit to Ecology a Safety Issue Resolution Plan (SIRP) that identifies the following:
 - a. the issue and its technical basis, its probability of occurrence, consequences of occurrence, and any threat to human health and the environment that would result if DOE adhered to the schedules in Section IV in light of the safety issue;

1	b. the impacts that the safety issue will have on the
2	schedules in Section IV;
3	c. required administrative, procedural, technical, and
4	operational issues that must be resolved in order for work to
5	continue;
6	d. a schedule and necessary resources to resolve the
7	safety issue in order to allow the resumption of work in the event
8	that work was stopped because of the safety issue;
9	e. the management process to be used to resolve the
10	safety issue;
11	f. any pertinent information not already provided to
12	Ecology; and
13	g. a request for a schedule amendment as set forth in
14	Section VII-G below. In the event that the impact on the schedule
15	cannot be adequately determined until the analysis of the safety
16	question is completed, DOE will advise Ecology of its initial
17	estimate of schedule impact and a date by which it will submit the
18	required request for schedule amendment.
19	3. If Ecology agrees, based on the information provided in the SIRP
20	and any other information, whether oral or written, provided by DOE,
21	that good cause exists for a schedule amendment, then the State shall
22	determine, in its sole discretion, whether the amendment constitutes a

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significant modification to the Consent Decree. If the amendment is significant, then the State and DOE shall take public comment on the amendment. Unless public comments disclose facts or considerations which indicate that the amendment is inappropriate, the Parties shall submit the amendment to the Court for its approval. In the event that Ecology does not agree, either before or after any public comment period, that good cause exists, DOE may invoke the dispute resolution procedures in Section IX.

G. Proposals to Amend.

- 1. Any proposal to amend the schedule in Section IV shall be submitted in writing to the other party and shall specify the following:
- a. The particular deadline(s) for which the amendment is sought;
 - b. The length of the extension(s) sought;
 - c. The basis for the amendment; and
- d. Any other requirement of this Consent Decree or of the HFFACO that would be affected if the proposal to amend the schedule were accepted.
- 2. Any proposal to amend any other provision of this Consent Decree shall be in writing and shall identify:
 - a. Those portions of the Consent Decree to be amended;

1 b. The proposed new language to be included in the Consent 2 Decree; and 3 The reason for the proposed amendment. c. Notice of any proposal to amend shall also be provided to the 4 3. 5 United States Environmental Protection Agency, Region 10. 6 VIII. FUNDING If DOE asserts that appropriated funds necessary to fulfill an obligation 7 8 under this Decree are not available, the Parties agree to utilize the procedures of 9 Sections VI or VII and Section IX. No provision of this Agreement shall be 10 interpreted as or constitute a commitment or requirement that the United States obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 11 12 1341, to the extent applicable. 13 IX. RESOLUTION OF DISPUTES 14 Written Demand. 15 The Parties recognize that a dispute may arise regarding the proper 16 interpretation of this Decree or whether or how the Decree should be amended. 17 If such a dispute arises, the Parties will endeavor to settle it by good faith 18 negotiations among themselves. The party invoking dispute resolution shall 19 send to the other party a written demand for immediate commencement of good

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faith negotiations to endeavor to settle the dispute. If the Parties cannot resolve

the issue within a reasonable time, not to exceed forty (40) calendar days from

the date of the written demand for good faith negotiations, then either party may

seek appropriate relief from the Court as set out hereinafter in paragraph B below. Either party may request a meeting among technical and/or management representatives from their respective organizations at any time during the dispute resolution.

B. Petition Court.

If the dispute is not resolved within 40 days from the date of the written demand for good faith negotiations of the dispute, either party may petition the Court for relief. A petition seeking appropriate relief from the Court shall be filed within thirty (30) calendar days of the end of the 40-day period provided for in Section IX-A. The Court shall resolve any such disputes under a de novo standard of review.

C. Applicability of Deadlines During Dispute Resolution.

Deadlines established in the schedules in Section IV shall continue in force unless and until changed by the Court. Notwithstanding the foregoing sentence, if DOE has requested an extension of a deadline, DOE shall not be deemed to be in violation of that deadline while DOE's request is being evaluated. This period shall run from the time that DOE submits a request for schedule amendment as provided in Section VII-A or Section VII-F through the date on which the Court acts on the request.

D. Resolution of Disputes of Certain Modification Determinations Under the HFFACO.

Disputes that arise on the determinations in [SP-2], paragraph 4 and 5, of the HFFACO, regarding whether or not the 2040 and 2047 end-dates for tank waste retrieval and tank waste treatment, respectively, should be accelerated, shall be resolved under Sections IX-A and -B of the Decree. The Court shall possess exclusive jurisdiction to resolve any such disputes, under a de novo standard of review, until such time as this Decree is terminated pursuant to Section XV-B of this Decree. The Court shall not possess jurisdiction under the Consent Decree to enforce either the 2040 or 2047 end-dates in [R-1] and [WTP-1] of the HFFACO or modifications to those end-dates that it may establish upon resolving disputes regarding the determinations in Milestone [SP-2], paragraphs 4 and 5. Upon termination of this Decree pursuant to Section XV-B, the United States and Ecology shall enter negotiations to establish the mechanism that will apply to resolve future disputes regarding the determinations in [SP-2], paragraphs 4 and 5. The United States and Ecology reserve their rights regarding the mechanism that should apply to such future disputes.

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X. RESOLUTION OF CLAIMS AND COVENANT NOT TO SUE

A. This Decree resolves any claims that have been or could have been raised by the State that DOE has violated or will violate the requirements of the HFFACO (as the HFFACO existed as of April 3, 2009), the HWMA, or RCRA, or any other federal, state, or local claims that have been or could have been raised by the State in its Amended Complaint, for the matters covered by this

Decree. "Matters covered" by this Decree are: (i) the schedule (including defined milestones) for WTP construction and initial operation; (ii) submittal, review, and approval of TWRWPs for the 19 tanks covered by this Decree; (iii) the schedule (including defined milestones) for SST waste retrieval from the 19 tanks in the manner established by Part 1 of the TWRWPs (either by approval of Ecology or after dispute resolution by the Court under Section IX of the Decree); and, (iv) reporting relating to (i) through (iii) above. Except for an action to enforce the requirements of this Decree, the State hereby covenants not to bring any civil, judicial, or administrative enforcement action against DOE, its officials or employees, or its contractors or their subcontractors, their officials, or employees, with respect to matters covered by this Decree. All claims raised in the Amended Complaint that are not resolved by this Consent Decree are dismissed with prejudice.

B. This Decree does not relieve DOE of responsibility to comply with any applicable state, federal, or local law or regulation. Both Parties retain all of their rights and defenses with respect to matters not covered or claims not dismissed by this Decree. The State expressly reserves for further action or enforcement, and its execution of this Decree does not discharge, release, or in any way affect any right, demand, claim, or cause of action that it has, or may have, regarding DOE's environmental liabilities at the Hanford Site other than the claims resolved or dismissed by this Decree.

C. Notwithstanding any other provision of this Decree, the State reserves the right to (1) seek amendment of this Decree, if previously unknown information is received, or previously undetected conditions are discovered, and these previously unknown conditions or information together with any other relevant information indicates that the work to be performed and schedule under this Decree are not protective of human health or the environment, or (2) to pursue an action outside of this Decree to address an imminent and substantial endangerment, if previously unknown information is received, or previously undetected conditions are discovered, and these previously unknown conditions or information together with any other relevant information indicates that an imminent and substantial endangerment exists, notwithstanding the work to be performed and schedule under this Decree, that cannot be addressed by an amendment to this Decree.

XI. INTEGRATION

A. Simultaneous with the entry of this Decree, amendments to the HFFACO executed by the Parties become effective in accordance with their terms. While the provisions of Sections IV-B, IV-D, IX, and Appendix C may affect certain matters under the HFFACO, the Decree shall not give the court jurisdiction over the HFFACO or otherwise govern the HFFACO or its enforcement (which shall be determined by the HFFACO in accordance with its own terms).

B. The matters covered by this Decree, as described in Section X, are within the scope of matters addressed or to be addressed in the future by the Hanford Sitewide HWMA permit. Ecology shall address such matters in the Hanford Sitewide HWMA permit through incorporation by reference of the requirements and schedules in this Consent Decree for such matters, including any revisions that may be made to such Decree requirements and schedules. While certain provisions of this Consent Decree may affect certain matters under the Hanford Sitewide HWMA permit, this Decree shall not give the Court jurisdiction over that permit.

XII. RETENTION OF JURISDICTION

This Court retains jurisdiction over both the subject matter of this Decree and the Parties for the duration of the performance of the terms and conditions of this Decree for the purpose of enabling either of the Parties to apply to the Court at any time for such further order, direction, sanction or other relief as may be necessary or appropriate for the construction or modification of this Decree, or to effectuate or enforce compliance with its terms, or to resolve disputes in accordance with Section IX, Resolution of Disputes.

XIII. CONSTRUCTION AND USE OF CONSENT DECREE

A. <u>Construction of Decree</u>. This Consent Decree is the product of negotiation by the Parties. Both Parties contributed to its drafting. In any dispute over the meaning of any provision of this Consent Decree, the Parties shall be treated as having contributed equally to the drafting of that provision.

1	B. Restrictions on Use in Other Proceedings. Neither this Consent
2	Decree nor any of its provisions may be used in any future proceeding to
3	determine or resolve the issue of whether exhaustion of appeal rights or
4	procedures under the HFFACO is a condition precedent to the initiation of a
5	judicial action based upon an alleged violation of a requirement of the
6	HFFACO. Consistent with the other provisions of this Decree, the Decree shall
7	not give the Court jurisdiction over the HFFACO.
8	XIV. COSTS OF LITIGATION
9	After entry of the Decree by the Court, the Parties intend to resolve the
10	State's claim for costs of litigation (including reasonable attorney and expert
11	witness fees) under 42 U.S.C. § 6972(e). In the event the Parties are unable to
12	reach agreement as to that claim, the State reserves the right to file an
13	application with the Court for such costs.
14	XV. EFFECTIVE AND TERMINATION DATES
15	A. This Consent Decree shall be effective upon the date of its entry by
16	the Court.
17	B. This Consent Decree shall terminate when all work to be
18	performed under Sections IV-A and IV-B of this Decree has been completed.
19	The Parties will notify the Court of this event by a motion to terminate the
20	Consent Decree.
21	DATED this, 20
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United States District Judge

1	FOR THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY	FOR THE UNITED STATES DEPARTMENT OF ENERGY
2	DEFARTMENT OF ECOLOGY	DEFARTMENT OF ENERGY
3		
4	ROBERT M. MCKENNA	JOHN C. CRUDEN
5	Attorney General	Acting Assistant Attorney General
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7	MARY SUE WILSON, WSBA #19257 Sr. Assistant Attorney General	DAVID KAPLAN CYNTHIA J. MORRIS
8	ANDREW A. FITZ, WSBA #22169 THOMAS J. YOUNG, WSBA #17366 ALLYSON ZIPP, WSBA #38076	AMANDA SHAFER-BERMAN United States Department of Justice Environmental Defense Section
9	Assistant Attorneys General	Environment & Natural Resources
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12	P.O. Box 40117 Olympia, WA 98504-0117	
13	(360) 586-6770	
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APPENDIX A: WTP CONSENT DECREE

MILESTONES, SCHEDULE, ASSUMPTIONS

1. WTP Construction and Startup.
The milestones referred to in Section IV above are as follows:

Project	Description	Date
A-1	Achieve initial plant operations for the Waste Treatment Plant	12/31/2022
A-2 Interim	HLW Facility Construction Substantially Complete	12/31/2016
A-3 Interim	Start HLW Facility Cold Commissioning	06/30/2018
A-4 Interim	HLW Facility Hot Commissioning Complete	12/31/2019
A-5 Interim	LAB Construction Substantially Complete	12/31/2012
A-6 Interim	Complete Methods Validations	12/31/2017
A-7 Interim	LAW Facility Construction Substantially Complete	12/31/2014
A-8 Interim	Start LAW Facility Cold Commissioning	12/31/2018
A-9 Interim	LAW Facility Hot Commissioning Complete	12/31/2019
A-12 Interim	Steam Plant Construction Complete	12/31/2012
A-13 Interim	Complete Installation of Pretreatment Feed Separation Vessels FEP-SEP-00001A/1B	12/31/2015
A-14 Interim	PT Facility Construction Substantially Complete	12/31/2017

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Project	Description	Date
A-15 Interim	Start PT Facility Cold Commissioning	12/31/2018
A-16 Interim	PT Facility Hot Commissioning Complete	12/31/2019
A-17	Hot Start of Waste Treatment Plant	12/31/2019
A-18 Interim	Complete Structural Steel Erection Below Elevation 56' in PT Facility	12/31/2009
A-19 Interim	Complete Elevation 98' Concrete Floor Slab Placements in PT Facility	12/31/2014
A-20 Interim	Complete Construction of Structural Steel to Elevation 14' in HLW Facility	12/31/2010
A-21 Interim	Complete Construction of Structural Steel to Elevation 37' in HLW Facility	12/31/2012

"Substantially complete" means that the Start-up Organization has certified that the facility and its subsystems are ready to be turned over to the Start-up Organization.

Because under Milestones A-5 and A-7, the LAW and LAB facilities must be substantially complete several years before "Hot Start of Waste Treatment Plant", equipment in those facilities that might become obsolete or require upkeep if installed at that early time would be installed later, such as: Communications systems; Melter assembly and movement into the LAW building; Hi-purity piping tubing systems; Distributed control system (DCS); Selected instrumentation subject to damage or obsolescence; Penetration sealing and heating. ventilation, and air-conditioning (HVAC) balancing; Piping insulation; Selected architectural finishes/components subject to damage; Cable installation and other fire-load materials, which would cause the permanent plant fire protection systems to become required for fire protection; Fire detection systems; Batteries; Master-slave Manipulators; Shield Windows: Carbon media in carbon bed adsorber; High-efficiency particulate air (HEPA) and other filters in HVAC systems. If DOE wishes to defer installation of equipment that is not substantially similar, then DOE shall seek approval from Ecology, with any dispute to be resolved under Section IX. The following items will not be considered substantially similar for purposes of delayed installation: All major civil, structural, piping, mechanical, and electrical power equipment installed and inspected; Electrical raceway installed except that required for systems/components not installed for obsolescence or maintenance

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"Start Cold Commissioning" means the introduction of feed simulants for the purpose of determining individual facility functionality.

"PT Facility Hot Commissioning Complete" means the point at which the PT Facility has demonstrated its ability to separate liquids from solids using radioactive materials to produce acceptable feed for high level waste (HLW) and low-activity waste (LAW) glass production.

"HLW Facility Hot Commissioning Complete" means the point at which the HLW facility has demonstrated its ability to produce immobilized HLW glass of acceptable quality.

"LAW Facility Hot Commissioning Complete" means the point at which the LAW facility has demonstrated its ability to produce immobilized LAW glass of acceptable quality.

2. WTP Construction and Startup Concerns and Assumptions

The milestones and schedule set forth in Section IV of the Decree and this Appendix thereto are based upon project planning that requires assumptions to be made and raises concerns about a broad range of circumstances and events, including unforeseen circumstances. Below is a non-exhaustive identification of some of the concerns and assumptions for the circumstances

considerations; All piping hydro-tested to confirm capability to meet design requirements; Buildings enclosed and weather-tight, as required by design; Interior partition walls completed except for penetrations and penetration sealing and caulking; Major instrumentation racks and associated tubing installed except for those portions subject to obsolescence or maintenance; Permanent lighting for the facilities complete.

and events. The identification in this Appendix of certain circumstances and
events and certain concerns and assumptions regarding circumstances and
events does not create a presumption that any particular circumstance, event,
concern, or assumption described in this Appendix will provide the basis for a
good cause extension in any particular case. These concerns and assumptions
are subject to the requirements for establishing good cause under Section VIID, including the requirement that DOE exercise reasonable diligence.

Unforeseen safety concerns that, because of the nature of the

- a. Unforeseen safety concerns that, because of the nature of the concerns and the time required to address them, may require that milestone dates and the schedule be extended. These concerns may include but are not limited to worker and public safety or impacts to the environment. Construction and start-up of the WTP involves unique characteristics and hazards including industrial, electrical, thermal, chemical, and radiological hazards.
- b. Because of the highly complex nature of the WTP, the milestones and schedule cannot anticipate all of the requirement changes and unknown technical obstacles that may be encountered and that may require time to remedy. These include but are not limited to difficulties in achieving the Maximum Achievable Control Technology standards during performance testing, difficulties in adoption of laser ablation technologies resulting in extended sample turn-around times, integrated control software obsolescence,

formation of hazardous mercury compounds in the evaporators, or technical issues that result from unforeseen tank waste characteristics.

- c. Although the milestones and schedule were developed assuming that equipment failures will occur and that time to respond will be required, these failures may take place more often and require more time to remedy than anticipated in development of the milestones and schedule. Examples may include but are not limited to components such as melters, agitators, compressors, material handling systems, crane systems, evaporators, and ultrafilters. Failures may occur during construction, testing, start-up, and operations. During WTP start-up and operations, failures in the Site infrastructure (e.g., Double-shell Tank system; 242-A Evaporator; Liquid Effluent Retention Facility, Effluent Treatment Facility, Integrated Disposal Facility, and the 222-S Laboratory) may occur.
- d. Although the milestones and schedule were based upon nominal delivery timelines developed through DOE and contractor experience, actual delivery times from suppliers of needed construction commodities and specialty equipment are affected by worldwide economic conditions and demand for the same or similar commodities and equipment; these conditions limit the ability of DOE and its contractors to secure required delivery dates to meet the milestones and schedule set forth above. Examples of these

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conditions include but are not limited to building steel, emergency diesel generators, piping and valves, and other commodities.

- e. DOE's ability to meet the milestones and schedule is dependent upon multiple regulatory actions and can be adversely impacted by forces outside its control, including but not limited to, obtaining operating permits and decisions from regulatory agencies on a timely basis, or legal intervention by third-parties under existing agreements or statutory provisions.
- f. DOE's ability to meet the milestones and schedule assume that required staffing levels can be achieved and sustained. The availability of skilled professionals and craft can be adversely impacted by competing projects in the nuclear, mining, chemical, oil and gas, refining and petrochemical industries, both domestic and international, and by local and regional projects, as well.

APPENDIX B:

1. Tank Waste Retrievals

Project	Description	Date
B-1	Complete retrieval of tank wastes from the following remaining SSTs in WMA-C: C-101, C-102, C-104, C-105, C-107, C-108, C-109, C-110, C-111, and C-112.	9/30/2014
B-2	Subject to the requirements of Section IV-B-3, DOE will advise Ecology of the 9 SSTs from which waste will be retrieved by 2022. Subject to the requirements of Section IV-B-3, DOE may substitute any of the identified 9 SSTs and advise Ecology accordingly.	9/30/2014
B-3	Of the 9 SSTs referred to in B-2, DOE will have initiated startup of retrieval in at least 5.	12/31/2017
B-4	Complete retrieval of tank wastes from the 9 SSTs selected to satisfy B-2.	9/30/2022

"Initiate startup of retrieval" means that actual pump operations in the SST have commenced and that transfers from the SST have totaled an estimated 5% of the waste in the tank.

2. Tank Retrieval Milestones and Schedule Concerns and Assumptions

The milestones and schedule set forth in Section IV of the Decree and this Appendix thereto are based upon project planning that requires assumptions to be made and raises concerns about a broad range of circumstances and events, including unforeseen circumstances. Below is a non-exhaustive identification of some of the concerns and assumptions for the circumstances

and events. The identification in this Appendix of certain circumstances and events and certain concerns and assumptions regarding circumstances and events does not create a presumption that any particular circumstance, event, concern, or assumption described in this Appendix will provide the basis for a good cause extension in any particular case. These concerns and assumptions are subject to the requirements for establishing good cause under Section VII-D, including the requirement that DOE exercise reasonable diligence.

- a. Unforeseen safety concerns that, because of the nature of the concerns and the time required to address them, may require that the milestones and schedule be extended. These concerns may include, but are not limited to, worker and public safety or impacts to the environment. The wastes contained within each tank have their own unique characteristics and hazards.
- b. The wastes associated with each tank or group of tanks have their own unique characteristics. Because of this, the milestones and schedule cannot anticipate all of the requirement changes and technical obstacles that may be encountered and that may require time to remedy. These may include but are not limited to unknown physical, chemical, and radiological characteristics present in the wastes; differences between the assumed and actual configurations of the tanks and tank farms; changes to the hazardous waste

management requirements; and significant changes in the nature and extent of assumed environmental contamination.

- c. Although the milestones and schedule were developed assuming that equipment failures will occur and that will require time to respond to, these failures may take place more often and require more time to remedy than anticipated in the development of the milestones and schedule. Examples may include but are not limited to failures in the Single-shell Tank waste retrieval systems, tank farms, and supporting infrastructure (e.g., Double-shell Tank system; 242-A Evaporator; Liquid Effluent Retention Facility, Effluent Treatment Facility, Integrated Disposal Facility, and the 222-S Laboratory).
- d. Although the milestones and schedule were based upon delivery timelines developed through DOE and Contractor experience, actual delivery times from suppliers of needed construction commodities and specialty equipment are affected by worldwide economic conditions and demand for the same or similar commodities and equipment; these conditions limit the ability of DOE and its Contractors to secure required delivery dates to meet the milestones and schedule. Examples of these conditions include but are not limited to specialized waste retrieval systems

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and components, piping and valves, and spare parts for aging tank systems.

- e. DOE's ability to meet the milestones and schedule is dependent upon multiple regulatory actions and can be adversely impacted by forces outside its control, including but not limited to, obtaining operating permits and decisions from regulatory agencies on a timely basis, or legal intervention by third-parties under existing agreements or statutory provisions.
- f. DOE's ability to meet the milestones and schedule assume that required staffing levels can be achieved and sustained. The availability of skilled professionals and craft can be adversely impacted by competing projects in the nuclear, mining, chemical, oil and gas, refining and petrochemical industries, both domestic and international, and by local and regional projects, as well.

APPENDIX C:

A Tank Waste Retrieval Work Plan (TWRWP), for a tank or set of tanks covered by Section IV-B of the Decree, may cover an individual tank or a group of tanks and will address only those actions associated with waste retrieval. Such TWRWPs shall contain a Part 1 and Part 2, which shall include the information required only by Parts 1 and 2 below. Processes not covered by a TWRWP (e.g., tank closure) are not established under this Consent Decree.

Part 1: Required Retrieval Technologies

For retrieval of the tanks covered by Section IV-B of the Decree, Part 1 of the TWRWP will describe the retrieval technology or technologies to be implemented by DOE for the tank retrievals covered in the TWRWP and the rationale for selecting these technologies to meet the requirements of this Decree for tank waste retrieval. For each tank or group of tanks, the TWRWP shall establish two retrieval technologies that shall be deployed to each of their "limits of technology" in an effort to obtain a waste residue goal of 360 cubic feet of waste or less for each tank. The "limits of technology" means that the recovery rate of that retrieval technology for that tank is, or has become, limited to such an extent that it extends the retrieval duration to the point at which continued operation of the retrieval technology is not practicable, with the consideration of practicability to include matters such as risk reduction, facilitating tank closures, costs, the potential for exacerbating leaks, worker safety, and the overall impact on the tank waste retrieval and treatment mission.

If 360 cubic feet is reached with the first retrieval technology, the first retrieval technology shall be used to the "limits of technology" and a second retrieval technology shall not be required. If the waste residual goal of 360 cubic feet is not achieved using the established two technologies, an additional retrieval technology established in a revised TWRWP shall be deployed to the "limits of technology;" provided that DOE may request that the State agree that DOE may forego implementing a third retrieval technology if DOE believes implementing such technology is not practicable under the criteria set forth above. If DOE and Ecology are unable to reach agreement, the resolution of the issue of whether a third retrieval technology shall be deployed shall be resolved through the dispute resolution process set forth in Section IX of this Decree. After such retrieval technologies have been deployed, retrieval for a tank will be complete.

Submittal of the TWRWP shall be accompanied by a schedule provided for informational purposes only. The schedule will include design, construction, and field retrieval activities.

Part 2: Required Information in a TWRWP

To support planned retrieval activity, Part 2 of the TWRWP shall provide the information set forth below:

- Tank(s) and/or ancillary equipment condition and Configuration;
- 2. Leak detection monitoring and mitigation plan, including technology description, rationale for selection,

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configuration, inspection and monitoring requirements, mitigation response, and anticipated performance goals;

- 3. Operational requirements during retrieval;
- 4. A pre-retrieval risk assessment of potential residuals, consideration of past leaks, and potential leaks during retrieval, based on available data and the most sophisticated analysis available at the time. The purpose of this risk assessment is to aid operational decisions during retrieval activities. This risk assessment will not be used to make final tank retrieval or closure decisions. The risk assessment will contain the following, as appropriate:
 - Long-term human health risks associated with potential leaks during retrieval and potential residual waste after completion of retrieval:
 - Potential impacts to groundwater, including a WMA-level risk assessment
 - o Potential impacts based on an intruder scenario
 - Process management responses to a leak during retrieval and estimated potential leak volume
 - The pre-retrieval risk analysis will be based on the following criteria:
 - Using the WMA fence line for point of compliance
 - o Identify the primary indicator contaminants (accounting for at least 95% of impact to

1	•		groundwater risk) and provide the incremental
2			lifetime cancer risk (ILCR) and hazard index
3			(HI)
4			 Using ILCR and HI for the industrial and
			residential human scenarios as the risk metric
5			o Calculated concentration(s) of primary
6			indicator contaminant(s) in groundwater (mg/L,
7			and pCi/L).
8		5.	Functions and associated requirements necessary to support
9			design of proposed waste retrieval and leak detection
10			monitoring and mitigation system(s);
11		6.	Preliminary isolation evaluation including a list of ancillary
12			equipment associated with the specific component, plans
13			for ancillary equipment removal or waste retrieval,
14			available characterization information for waste contained
15			within ancillary equipment, and anticipated interrelated
16			impacts of various retrieval actions;
17		7.	Any TWRWP that identifies the use of new aboveground
18			tanks, tank systems or treatment systems (not otherwise
9			permitted, and to be operated only during the retrieval
20			duration) shall include the following additional information:
21			General arrangement diagrams
22			• System description

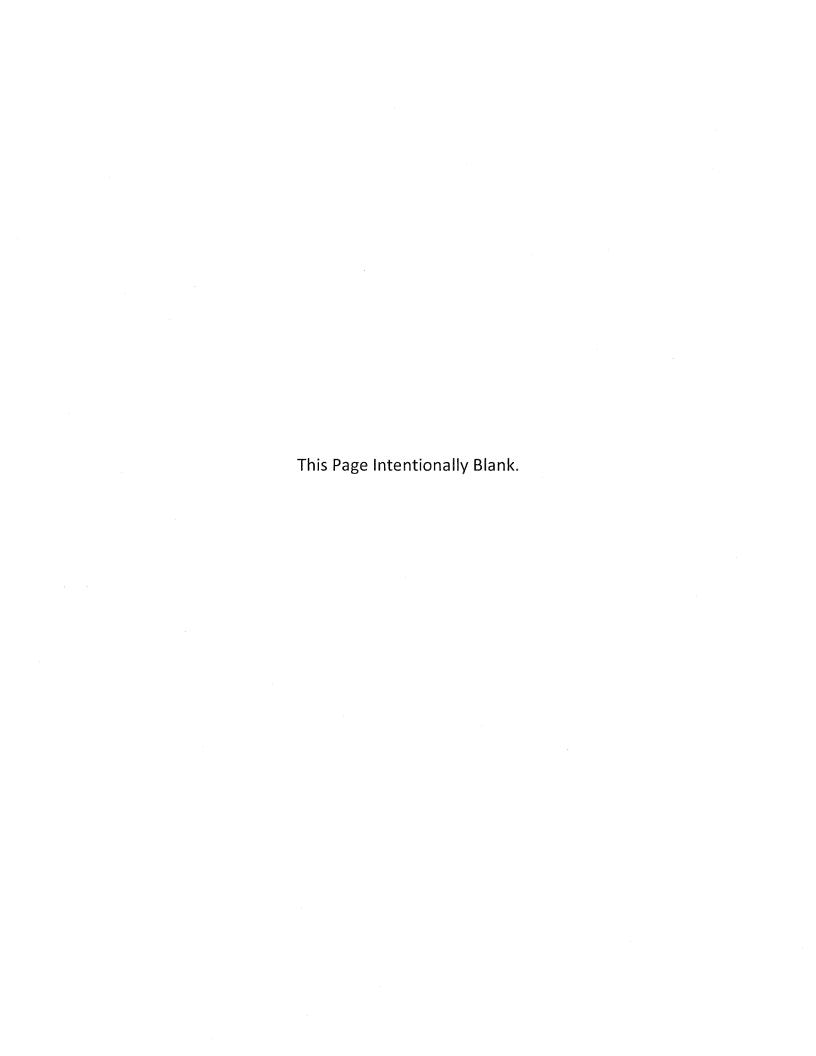
Piping and instrumentation drawings (P&ID) for the 1 retrieval system 2 Process flow diagrams 3 Information to demonstrate compliance with WAC 4 5 173-303-640 Describe the disposition of the system at completion of 6 the retrieval. 7 8 Part 3: Integration with HFFACO Those portions of the TWRWP that address Part 1 of Appendix C for a 9 A. tank or set of tanks covered by Section IV-B, established either by approval of 10 11 Ecology or after resolution of a dispute by the Court under Section IX of this 12 Decree, shall be enforceable under the Decree. Those portions of such a 13 TWRWP that address Part 2 of Appendix C shall not be enforceable under this 14 Consent Decree; rather, once a TWRWP is established, Part 2 shall for the 15 purposes of any HFFACO enforcement claims be governed by the HFFACO, as 16 set forth herein. 1. Once a TWRWP is established for a tank or set of tanks covered by 17 18 Section IV-B (either by approval of Ecology or after resolution of a dispute by 19 the Court pursuant to Section IX of this Decree), Part 2 of that TWRWP shall 20 for purposes of HFFACO enforcement constitute an Action Plan primary 21 document under the HFFACO within the meaning of Appendix I, Section 1.0,

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with each party retaining the rights they otherwise have regarding the enforcement of that TWRWP under the HFFACO, and

- 2. Sections 2.1.4 and 2.1.5 of Appendix I of the HFFACO (except for the references to start dates and schedules), and Section 2.1.6 of Appendix I of the HFFACO, and only these portions of Appendix I of the HFFACO, shall apply according to their terms to the retrieval activities undertaken by DOE under Part 2 of the TWRWP, with each party retaining the rights they otherwise have regarding enforcement of these provisions under the HFFACO.
- 3. Upon the establishment of a TWRWP for a tank or set of tanks covered by Section IV-B (either by approval of Ecology or after resolution of a dispute by the Court under section IX of this Decree), the requirements and schedules of the TWRWP shall be incorporated by reference into the Hanford Sitewide HWMA permit to satisfy any HWMA permit requirements.
- B. Notwithstanding the requirements of Part 1 of Appendix C, DOE has, prior to the entry of this Consent Decree, submitted TWRWPs under the HFFACO that Ecology has already approved, or may hereafter approve, for certain tanks covered by Milestone B-1 in Appendix B to this Consent Decree. These tanks are subject to the requirements of Appendix C. However, such approvals, including the deployment of technologies to the limits of technology pursuant to such TWRWPs, shall count towards satisfaction of DOE's obligations under Part 1 of Appendix C. This Consent Decree shall not be interpreted to prohibit DOE from continuing to conduct retrieval activities

under such approved TWRWPs, including in a situation where a revised TWRWP may be required under this Consent Decree.



Tri-Party Agreement Change Form

M-36-09-01

Hanford Federal Facility Agreement and Consent Order Milestone Modifications to add milestone M-036 for the Life-Cycle Scope, Schedule, and Cost Report, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Change Number	Federal Facility Agreement and Consent Order	Date
M-36-09-01	Change Control Form Do not use blue ink. Type or print using black ink.	September 22, 2009
Originator		Phone
The U.S. Department Environmental Protect	of Energy, the State of Washington Department of Ecotion Agency.	ology, and the U.S.
Class of Change		
[] I - Signatories	[X] II - Executive Manager [] III - Project	ct Manager
Change Title		
036 for the Life-Cycle negotiations on chang	ity Agreement and Consent Order Milestone Modificati Scope, Schedule, and Cost Report, resulting from the ges to the Hanford Federal Facility Agreement and Con Party Agreement or TPA.	2007 - 2009 Hanford
Description/Justification	of Change	
•	ects the results of the 2007 - 2009 Hanford negotiation Scope, Schedule, and Cost Report and carries out mo ACO.	
Impact of Change		
packages M-36-09-01. M-62-09-01, M-90-09-	nis document are conditioned upon approval of the follow, M-42-09-01, M-45-09-01, M-47-09-01, M-50-09-01, M-01, P-09-09-02 and I-09-01, and shall go into effect up to v. DOE, Case No. 08-5085-FVS.	л-51-09-01, М-61-09-01,
Affected Documents		
The Hanford Federal F	Facility Agreement and Consent Order, as amended.	
Approvals		
DOE	ApprovedDisapproved	D 4 44 4
EPA	ApprovedDisapproved	Page 1 of 4
	ApprovedDisapproved	

Date

Ecology

Change Form M-36-09-01 Page 2 of 4

Milestones to be added to the Tri-Party Agreement are displayed below. Lead Regulatory Agency is established as dual lead.

M-036-01A (SUBSEQUENT ANNUAL MILESTONES TO BE LETTERED B, C, D ETC.) THE USDOE SHALL PREPARE AND SUBMIT TO EPA AND ECOLOGY A REPORT SETTING OUT THE LIFECYCLE SCOPE, SCHEDULE AND COST FOR COMPLETION OF THE HANFORD SITE CLEANUP MISSION. THE REPORT SHALL REFLECT ALL OF THOSE ACTIONS NECESSARY FOR THE USDOE TO FULLY MEET ALL APPLICABLE ENVIRONMENTAL OBLIGATIONS INCLUDING THOSE UNDER THE HFFACO, THE CONSENT DECREE IN WASHINGTON V. DOE, CASE NO. 08-5085-FVS, AND THE HANFORD RCRA/HWMA PERMIT. THE REPORT SHALL INCLUDE SCOPE, SCHEDULE AND COST FOR COMPLETING WORK AT EACH OF THE OPERABLE UNITS AND RCRA TSD GROUPS/UNITS THAT ARE LISTED IN APPENDIXES B AND C OF THE HFFACO, IN THE CONSENT DECREE IN WASHINGTON V. DOE, CASE NO. 08-5085-FVS, AND IN THE HANFORD RCRA/HWMA PERMIT, INCLUDING THE HANFORD WASTE TREATMENT AND IMMOBILIZATION PLANT. THE REPORT WILL INCLUDE ALL OTHER CLEANUP AND MONITORING ACTIVITIES (INCLUDING POST-CLOSURE ACTIVITIES) AND ALL RELATED ACTIONS NECESSARY TO COMPLETE THE CLEANUP MISSION TO PROVIDE A COMPLETE UNDERSTANDING OF THE RESOURCES NECESSARY FOR THE HANFORD CLEANUP MISSION.

THIS REPORT SHALL TAKE INTO ACCOUNT CIRCUMSTANCES EXISTING AS OF THE END OF THE FISCAL YEAR PRECEDING THE MONTH OF THE REPORT, INCLUDING FUNDS APPROPRIATED BY CONGRESS FOR THE HANFORD CLEANUP, BUT SHALL NOT ASSUME ANY LIMITATION ON FUNDING FOR FUTURE YEARS. HOWEVER, THE REPORT WILL TAKE INTO CONSIDERATION CRITICAL RESOURCE AVAILABILITY NOT BASED UPON ASSUMED FUTURE FUNDING LIMITATIONS AND THE PRACTICAL LIMITS OF PROJECT ACCELERATION WHEN DEVELOPING AN EXECUTABLE PLAN. USDOE MAY ALSO INCLUDE COSTS OTHER THAN THOSE DIRECTLY RELATED TO ENVIRONMENTAL OBLIGATIONS (SUCH AS SECURITY COSTS) BUT SHALL CLEARLY DISTINGUISH EXPENDITURES FOR ENVIRONMENTAL OBLIGATIONS

DUE DATE TO SUBMIT THE REPORT TO BE **JANUARY 31 AND ANNUALLY** THEREAFTER. **EXCEPT THAT** THE FIRST REPORT TO BE DUE NO SOONER THAN 9 MONTHS **AFTER** INCORPORATION OF THIS MILESTONE IN **TPA**

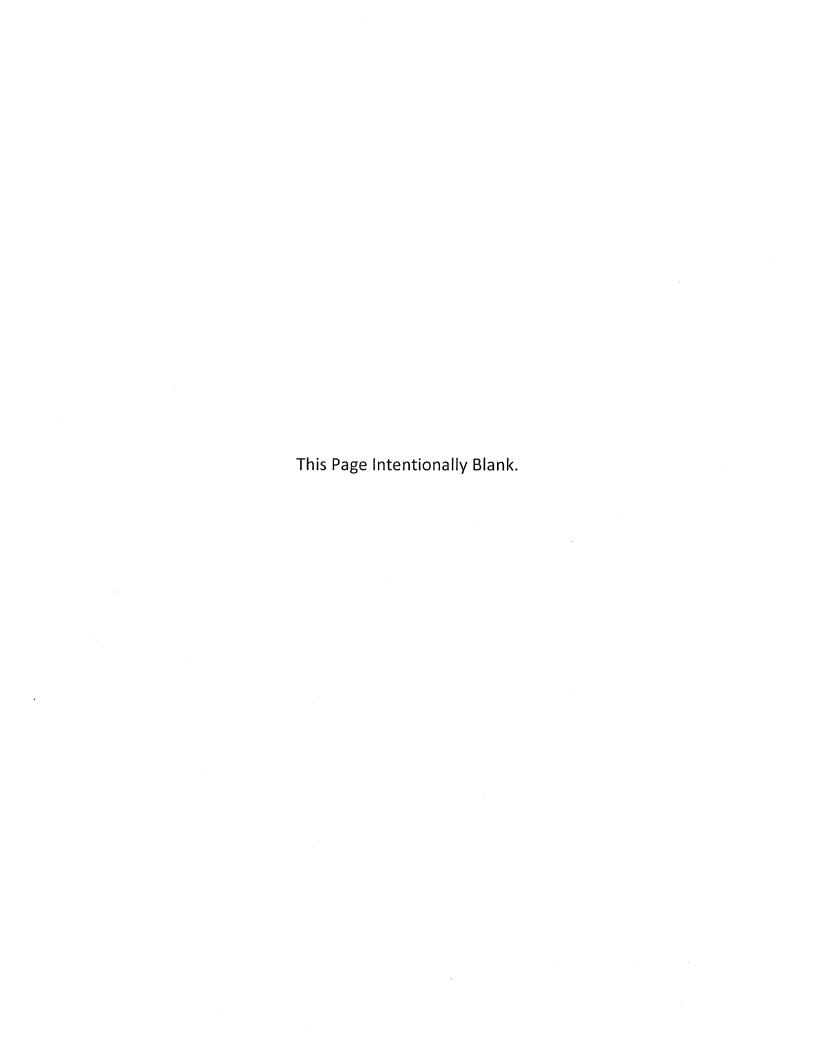
FROM OTHER EXPENDITURES. COSTS SHALL BE DISPLAYED BY PROGRAM BASELINE SUMMARY. ADDITIONAL LEVELS OF DETAIL WILL APPEAR IN APPENDIXES TO THE REPORT. COST INFORMATION WILL PROVIDE SUFFICIENT DETAIL TO VALIDATE CONSISTENCY WITH THE SCOPE AND SCHEDULE FOR INDIVIDUAL CLEANUP PROJECTS. REPORTING IN THE APPENDIXES WILL TYPICALLY BE ONE LEVEL BELOW THE PBS FOR THE LIFECYCLE, AND AT LEVELS BELOW THAT FOR THE NEXT TWO TO FIVE YEARS BEYOND THE EXECUTION YEAR (USUALLY AT THE ACTIVITY LEVEL WITHIN THE BUDGET ASSIGNED TO A SPECIFIC PROJECT, E.G., RL-0011, WBS ELEMENT 011.04.01, NUCLEAR MATERIAL STABILIZATION AND DISPOSITION - PFP. DISPOSITION PFP, TRANSITION 234-5Z). EPA AND ECOLOGY PROJECT MANAGERS MAY REQUEST ADDITIONAL LEVELS OF DETAIL BE PROVIDED BY THEIR DOE COUNTERPARTS.

IN CIRCUMSTANCES WHERE FINAL CLEANUP DECISIONS HAVE NOT YET BEEN MADE. THE REPORT SHALL BE BASED UPON THE REASONABLE UPPER BOUND OF THE RANGE OF PLAUSIBLE ALTERNATIVES OR MAY SET FORTH A RANGE OF ALTERNATIVE COSTS INCLUDING SUCH A REASONABLE UPPER BOUND. IN MAKING ASSUMPTIONS FOR THE PURPOSE OF PREPARING THE INITIAL REPORT, USDOE SHALL TAKE INTO ACCOUNT THE VIEWS OF EPA AND ECOLOGY AND SHALL ALSO TAKE INTO ACCOUNT THE VALUES EXPRESSED BY THE AFFECTED TRIBAL GOVERNMENTS AND HANFORD STAKEHOLDERS REGARDING WORKSCOPE, PRIORITIES AND SCHEDULE. THE REPORT SHALL INCLUDE THE SCOPE, SCHEDULE AND COSTS FOR EACH SUCH PBS LEVEL TWO ELEMENT AND SHALL SET FORTH THE BASES AND ASSUMPTIONS FOR EACH CLEANUP ACTIVITY.

AFTER USDOE SUBMITS THE REPORT, THE USDOE WILL REVISE THE REPORT BASED UPON EPA AND ECOLOGY COMMENTS TO REFLECT A COMMON VISION OF THE SCOPE, SCHEDULE AND BUDGET FOR THE REMAINDER OF THE CLEANUP MISSION. IF THE AGENCIES ARE UNABLE TO REACH RESOLUTION ON SPECIFIC ASPECTS OF THE SCOPE

OF CLEANUP ACTIONS, THE REVISED DOCUMENT WILL PRESENT A RANGE OF POTENTIAL ACTIONS WITH THE ASSOCIATED SCHEDULE AND BUDGET. THEREBY COMPLETING THE MILESTONE. DOE, EPA AND ECOLOGY SHALL ATTEMPT TO REACH AGREEMENT ON THE REPORT SO IT CAN SERVE AS AN AGREED UPON FOUNDATION FOR PREPARING BUDGET REQUESTS AND FOR INFORMATIONAL BRIEFINGS OF AFFECTED TRIBAL GOVERNMENTS AND HANFORD STAKEHOLDERS. THE REPORT SHALL ALSO SERVE AS THE BASIS FOR ANNUAL DISCUSSIONS AMONG USDOE. EPA AND ECOLOGY ON HOW AND WHEN THE USDOE WILL COMPLETE CLEANUP. HOW CONGRESSIONAL APPROPRIATIONS FOR THE HANFORD SITE FOR THAT YEAR MAY AFFECT ASSUMPTIONS PRESENTED IN THE REPORT. AND HOW MILESTONE CHANGES AND ADJUSTMENTS WILL AFFECT LIFECYCLE SCOPE, SCHEDULE AND COST.

WITHOUT LIMITING ANY DOE OBLIGATION UNDER ANY OTHER PROVISIONS OF THIS AGREEMENT, AND WITHOUT LIMITING ANY DOE OBLIGATION TO DISCLOSE INFORMATION THAT IS OTHERWISE PUBLICLY AVAILABLE, NOTHING IN THIS MILESTONE SHALL BE CONSTRUED, EITHER ALONE OR IN COMBINATION WITH ANY OTHER PROVISION OF THE HFFACO, TO REQUIRE DISCLOSURES RELATED TO INTERNAL FEDERAL BUDGET DELIBERATIONS.



Tri-Party Agreement Change Form

M-42-09-01

Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-42-00 for Double-Shell Tanks, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Change Number Date Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink. **September 22, 2009** M-42-09-01 Originator Phone The U.S. Department of Energy, the State of Washington Department of Ecology, and the U.S. Environmental Protection Agency. Class of Change [X] I - Signatories [] II - Executive Manager [] III - Project Manager Change Title Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-42-00 for Double-Shell Tanks, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA. Description/Justification of Change This change form reflects the results of the 2007 - 2009 Hanford negotiations on milestones for Double-Shell Tanks in the M-42-00 series and carries out modifications to the milestones in the

Impact of Change

HFFACO.

The modifications in this document are conditioned upon approval of the following TPA change packages M-36-09-01, M-42-09-01, M-45-09-01, M-47-09-01, M-50-09-01, M-51-09-01, M-61-09-01, M-62-09-01, M-90-09-01, P-09-09-02 and I-09-01, and shall go into effect upon entry of the Consent Decree in *Washington v. DOE*, Case No. 08-5085-FVS.

Affected Documents	WHITE CO.			
The <u>Hanford Federal Fac</u>	ility Agreement and Cor	nsent Order, as	amended.	
Approvals				
DOE	 Date	Approved	Disapproved	Dans 4 of 0
EPA	Date	Approved	Disapproved	Page 1 of 2
Fcology		Approved	Disapproved	

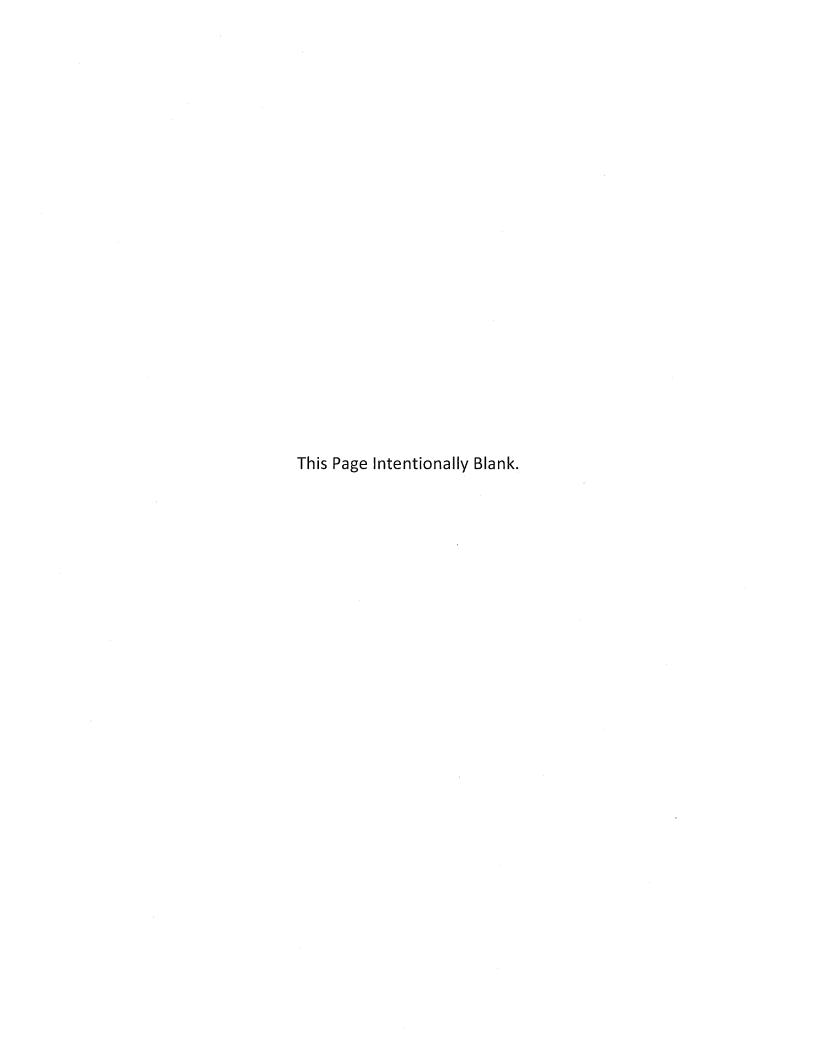
The following Interim Milestone is hereby **added**, as shown by the use of **shading**, to the Hanford Federal Facility Agreement and Consent Order.

This new milestone is established with Ecology as the Lead Regulatory Agency.

M-42-00A	Complete the Closure of All DST Tank Farms.	TBD, based
		upon
		completion of
		retrieval under
		M-62-45 plus 5
		years but no
		later than
		9/30/2052

The following Major Milestone is hereby **deleted**, as shown by the use of strikeout, from the Hanford Federal Facility Agreement and Consent Order.

M-42-00	Provide Additional Double Shell Tank Capacity.	To Be
		Determined
	'	



Tri-Party Agreement Change Form

M-45-09-01

Hanford Federal Facility Agreement and Consent Order Milestone Modifications to the M-045-00 series for Single-Shell Tank Retrieval and Closure of Single-Shell Tanks, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Change Number Federal Facility Agreement and Consent Order Date Change Control Form Do not use blue ink. Type or print using black ink. **September 22, 2009** M-45-09-01 Originator The U.S. Department of Energy, the State of Washington Department of Ecology, and the U.S. Environmental Protection Agency. Class of Change [X] I - Signatories [] II - Executive Manager [] III - Project Manager **Change Title** Hanford Federal Facility Agreement and Consent Order Milestone Modifications to the M-045-00 series for Single-Shell Tank Retrieval and Closure of Single-Shell Tanks, resulting from the 2007 -2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA. Description/Justification of Change This change form reflects the results of the 2007 - 2009 Hanford negotiations on milestones for Single-Shell Tank Retrieval and Closure of Single-Shell Tanks in the M-045-00 series and carries out modifications to the milestones in the HFFACO. Impact of Change The modifications in this document are conditioned upon approval of the following TPA change packages M-36-09-01, M-42-09-01, M-45-09-01, M-47-09-01, M-50-09-01, M-51-09-01, M-61-09-01, M-62-09-01, M-90-09-01, P-09-09-02 and I-09-01, and shall go into effect upon entry of the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS. **Affected Documents** The Hanford Federal Facility Agreement and Consent Order, as amended. **Approvals** Approved Disapproved DOE Page 1 of 16

Disapproved

Disapproved

Approved

Approved

Date

Date

EPA

Ecology

The following Milestones are hereby **added** to the Hanford Federal Facility Agreement and Consent Order.

All new milestones established in this change form are established with Ecology as the Lead Regulatory Agency.

Milestone	Description	Due Date
M-045-70	Complete waste retrieval from all remaining single-shell tanks. Retrieval standards and completion definitions are provided in milestone M-045-00.	12/31/2040 or earlier as established by M-62-45
	The schedule reflects retrieval activities on a farm-by-farm basis. It also allows flexibility to retrieve tanks from various farms if desired to support safety issue resolution, pretreatment or disposal feed requirements, or other priorities.	
M-045-80	Complete those portions of the C-200 Closure Demonstration Plan necessary to complete closure plan development for the SST system. Those portions of the demonstration plan include: (1) description of the radioactive waste determination process that DOE will utilize for the component of Tank Waste residuals subject to DOE authority, (2) a RCRA/CERCLA Integration White Paper, (3) a tank removal engineering study, and (4) an evaluation of alternatives for removal of waste from the C-301 catch tank.	1/31/2011
M-045-81	Implement and complete all remaining activities in the June 6, 2007 C-200 Closure Demonstration Plan (with any revisions as agreed to by Ecology and DOE). Provide a report that documents the results of those activities and provides interpretations and recommendations consistent with the Project Goals, Objectives, and Products described in Section 5 of the Plan.	9/30/2014
M-045-82	Submit complete permit modification requests for Tiers 1, 2, & 3 (see Appendix I) of the SST System, to support final closure requirements for WMA C.	9/30/2015
M-045-83	Complete the Closure of WMA C. The milestone date assumes Ecology will issue a final permit modification decision within 12 months of receiving DOE's modification request under M-045-82. If Ecology does not issue a final permit modification decision within 12 months of receiving DOE's modification request under M-045-82, the milestone date will be extended on a day-for-day basis for each day beyond the 12 month period until a final permit modification decision is issued.	6/30/2019
M-045-84	Complete negotiations of HFFACO interim milestones for closure of the second WMA (including a schedule for submittal of closure plans and risk assessments and final closure dates).	1/31/2017

		*
M-045-85	Complete negotiations of HFFACO interim milestones for closure of the remaining WMAs (including a schedule for 200 West Area closures, the submittal of closure plans and risk assessments and final closure dates for each WMA).	1/31/2022
M-045-86	Submit a retrieval data report to Ecology for the 19 tanks retrieved under the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS, which report shall include the following elements only of Section 2.1.7 of Appendix I to the HFFACO: 1) Residual tank waste volume measurement, including associated calculations; 2) The results of residual tank waste characterization; 3) Retrieval technology performance documentation; 4) DOE's updated post-retrieval risk assessment; 5) Opportunities and actions being taken to refine or develop tank waste retrieval technologies, based on lessons learned and, 6) LDMM monitoring and performance results.	12 months after DOE certifies to Ecology that DOE has completed retrieval of each tank
M-045-90	Complete interim barrier demonstration report for the T-106 interim barrier, which report shall include a recommendation and commitment on whether to proceed with additional interim barriers and an evaluation of the barrier's ability to reduce water infiltration that drives migration of subsurface contamination to groundwater.	9/30/2010
M-045-92	DOE and Ecology will establish, no later than March 31, 2010, selection criteria for installation of additional interim barriers at additional WMAs (beyond the T-106 and TY barriers). DOE and Ecology will meet yearly to review the monitoring data, agree to changes in monitoring (if needed) and assess the performance of the demonstration barrier. DOE shall submit to Ecology for approval, a final design and monitoring plan for TY farm interim barrier by March 31, 2010. Installation of the barrier will be completed by September 30, 2010.	9/30/2016 or as indicated in the descriptive text of this milestone
	By December 31, 2010, complete negotiations to schedule the remaining 4 additional barriers, unless DOE and Ecology agree that monitoring data does not support continued installation of interim barriers.	. '
	If negotiated, complete installation of 4 additional interim barriers at a rate of one per year, with the first being completed by June 30, 2012. Prior to beginning construction and at least one year before construction is to be complete, DOE will submit to Ecology a final design and monitoring plan for each interim barrier. The design and monitoring plans will be consistent with those developed for WMA T and TY unless DOE and Ecology agree otherwise. Ecology will authorize construction upon approval of these	

	submittals.	
M-045-91	Establish a panel and provide a report on SST integrity assurance review. DOE has selected and established a panel of technical and nationally recognized experts to focus on data available from already-retrieved tanks.	09/30/2010 or as indicated in the descriptive text of this milestone
	 The report will contain: The panel's evaluation of the existing known conditions of the SSTs; The Panel's evaluation of the proposed future use of the SSTs; The Panel's recommendations for critical modifications and associated schedule aimed at preventing or minimizing further degradation of SST integrity; The Panel's recommendations for additional evaluations and program elements that would improve existing understanding of SST integrity. 	
	An agreement change package with interim milestones as necessary to implement the recommendations will be submitted within 90 days of the report.	5
M-045-100	Submit to Ecology as an Agreement Primary Document a Catch Tank "assumed leak" response plan. This Plan will include criteria for declaring a tank an assumed leaker, response actions that will be taken, notifications, and provisions to ensure initiation of liquid removal within 90 days.	60 days after this milestone is adopted by the Parties
M-045-XX	Remove pumpable liquid from Catch Tank S-302. Note: this milestone has already been completed and thus will be removed after public comment.	9/30/2008 (Completed)
M-045-101	Submit to Ecology as an agreement primary document a report on all Catch Tanks and associated pipelines that are identified in the SST System Part A or that have otherwise been known to be used for SST tank system operations. The report will identify DOE's proposed closure strategy for each of these tanks, and ancillary equipment. For items that are outside of the WMA boundaries, these items will be assigned either to a specific waste site operable unit (200-IS-1) or to a specific WMA for closure. The report shall provide the regulatory basis and supporting information for such assignments. For items assigned to an Operable Unit, M-16-00 processes and milestones will be followed to ensure completion of remedial actions for all non-tank farm operable units by 9/30/2024 (M-16-00). The schedules for remedial action implementation will be established by regulatory agency approval of the Remedial Design/Remedial Action work plans and is enforceable as a HFFACO requirement. For items assigned to WMAs for closure,	60 days after this milestone is adopted by the Parties

Page 5 of 16

	closure milestones will be included within the applicable WMA closure schedule and milestones.	,

Specific Major and Interim Milestones are **modified** as shown by use of strikeout to indicate deleted text and shading to indicate added text.

M-045-00 LEAD AGENCY: ECOLOGY COMPLETE THE CLOSURE OF ALL SINGLE SHELL TANK FARMS.

09/30/2024 01/31/2043

CLOSURE WILL FOLLOW RETRIEVAL OF AS MUCH TANK WASTE AS TECHNICALLY POSSIBLE, WITH TANK WASTE RESIDUES NOT TO EXCEED 360 CUBIC FEET (CU. FT.) IN EACH OF THE 100 SERIES TANKS, 30 CU. FT. IN EACH OF THE 200 SERIES TANKS, OR THE LIMIT OF WASTE RETRIEVAL TECHNOLOGY CAPABILITY, WHICHEVER IS LESS. IF THE DOE BELIEVES THAT WASTE RETRIEVAL TO THESE LEVELS IS NOT POSSIBLE FOR A TANK, THEN DOE WILL SUBMIT A DETAILED EXPLANATION TO EPA AND ECOLOGY EXPLAINING WHY THESE LEVELS CANNOT BE ACHIEVED, AND SPECIFYING THE QUANTITIES OF WASTE THAT THE DOE PROPOSES TO LEAVE IN THE TANK. THE REQUEST WILL BE APPROVED OR DISAPPROVED BY EPA AND ECOLOGY ON A TANK-BY-TANK, OR GROUP OF TANKS, BASIS. PROCEDURES FOR MODIFYING THE RETRIEVAL CRITERIA LISTED ABOVE AND FOR PROCESSING REQUESTS FOR EXCEPTIONS TO THE CRITERIA ARE OUTLINED IN APPENDIX H TO THE AGREEMENT.

FOR THE PURPOSES OF THIS AGREEMENT ALL UNITS LOCATED WITHIN THE BOUNDARY OF EACH TANK FARM WILL BE CLOSED IN ACCORDANCE WITH WAC 173-303-610. THIS INCLUDES CONTAMINATED SOIL AND ANCILLARY EQUIPMENT THAT WERE PREVIOUSLY DESIGNATED AS RCRA PAST PRACTICE UNITS. ADOPTING THIS APPROACH WILL ENSURE EFFICIENT USE OF FUNDING AND WILL REDUCE POTENTIAL DUPLICATION OF EFFORT VIA APPLICATION OF DIFFERENT REGULATORY REQUIREMENTS: WAC 173-303-610 FOR CLOSURE OF THE TSD UNITS AND RCRA SECTION 3004(U) FOR REMEDIATION OF RCRA PAST PRACTICE UNITS.

ALL PARTIES RECOGNIZE THAT THE RECLASSIFICATION OF PREVIOUSLY IDENTIFIED RCRA PAST PRACTICE UNITS TO ANCILLARY EQUIPMENT ASSOCIATED WITH THE TSD UNIT IS STRICTLY FOR APPLICATION OF A CONSISTENT CLOSURE APPROACH. UPGRADES TO PREVIOUSLY CLASSIFIED RCRA PAST PRACTICE UNITS TO ACHIEVE COMPLIANCE WITH RCRA OR DANGEROUS WASTE INTERIM STATUS TECHNICAL STANDARDS FOR TANK SYSTEMS (I.E., SECONDARY CONTAINMENT, INTEGRITY ASSESSMENTS, ETC.) WILL NOT BE MANDATED AS A RESULT OF THIS ACTION. HOWEVER, ANY EQUIPMENT MODIFIED OR REPLACED WILL MEET INTERIM STATUS STANDARDS. IN EVALUATING CLOSURE OPTIONS FOR SINGLE-SHELL TANKS, CONTAMINATED SOIL, AND ANCILLARY EQUIPMENT, ECOLOGY AND EPA WILL CONSIDER COST, TECHNICAL PRACTICABILITY, AND POTENTIAL EXPOSURE TO RADIATION. CLOSURE OF ALL UNITS WITHIN THE BOUNDARY OF A GIVEN TANK FARM WILL BE ADDRESSED IN A CLOSURE PLAN FOR THE SINGLE-SHELL TANKS.

COMPLIANCE WITH THE WORK SCHEDULES SET FORTH IN THIS M-45 MILESTONE SERIES IS DEFINED AS THE PERFORMANCE OF SUFFICIENT WORK TO ASSURE WITH REASONABLE CERTAINTY THAT DOE WILL ACCOMPLISH SERIES M-45 MAJOR AND INTERIM

MILESTONE REQUIREMENTS.

DOE INTERNAL WORK SCHEDULES (E.G., DOE APPROVED SCHEDULE BASELINES) AND ASSOCIATED WORK DIRECTIVES AND AUTHORIZATIONS SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THIS AGREEMENT. MODIFICATION OF DOE CONTRACTOR BASELINE(S) AND ISSUANCE OF ASSOCIATED DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS THAT ARE NOT CONSISTENT WITH AGREEMENT REQUIREMENTS SHALL NOT BE FINALIZED PRIOR TO APPROVAL OF AN AGREEMENT CHANGE REQUEST SUBMITTED PURSUANT TO AGREEMENT ACTION PLAN SECTION 12.0. COMPLETION OF THIS MAJOR MILESTONE-REQUIRES THE COMPLETION OF THE WORK SCOPE IN ALL-PRECEEDING MILESTONES AND TARGET DATES, UNLESS-OTHERWISE AGREED TO BY THE PARTIES.

ALL WORK UNDER THIS MILESTONE M-45 SERIES SHALL BE CONDUCTED IN COMPLIANCE WITH AGREEMENT REQUIREMENTS INCLUDING BUT NOT LIMITED TO THE PARTIES' AGREEMENT APPENDIX I, "SINGLE-SHELL TANK SYSTEM WASTE RETRIEVAL AND CLOSURE PROCESS", PROVIDED THAT SECTION 2.1, TANK WASTE RETRIEVAL, OF APPENDIX I OF THE HFFACO SHALL NOT APPLY TO THE 19 SSTS COVERED BY THE CONSENT DECREE IN WASHINGTON V. DOE, CASE NO. 08-5085-FVS, EXCEPT AS SET FORTH IN APPENDIX C, PART3, A.1 AND A.2 OF SUCH DECREE.

M-045-00B

COMPLETE SPECIFIED "NEAR TERM" SST WASTE RETRIEVAL AND INTERIM CLOSURE ACTIVITIES, TO RESULT IN THE RETRIEVAL OF ALL TANK WASTES IN WMA-C SSTs PURSUANT TO THE AGREEMENT CRITERIA IN MILESTONE M-45-00.

UNTIL THE WASTE TREATMENT COMPLEX IS OPERATIONAL, THE AMOUNT OF DST SPACE AVAILABLE TO RECEIVE SST WASTE IS-LIMITED. THE NEAR-TERM FOCUS FOR SST WASTE RETRIEVAL-WILL INCLUDE MAXIMIZING THE TRANSFER OF CONTAMINANTS OF CONCERN (LONG-LIVED, MOBILE RADIONUCLIDES) INTO THE DST-SYSTEM AND OPTIMIZING WASTE FEED SO AS TO MAINTAIN-EFFICIENT WTP OPERATIONS. ADDITIONAL CRITERIA THAT WILL-BE CONSIDERED IN TANK SELECTION AND MAY RESULT IN LOWER-RISK TANKS BEING RETRIEVED EARLIER IN THE SEQUENCE, INCLUDE:

- WORKER SAFETY
- FACILITATION OF WMA CLOSURES.
- THE OPTIMIZATION OF DST SPACE UTILIZATION
 CONSIDERING RESOURCE LEVELING AND WASTE TRANSFER INFRASTRUCTURE
- RETRIEVAL AND CLOSURE REQUIREMENTS FOR-ASSOCIATED ANCILLARY EQUIPMENT.

WORK UNDER THIS MILESTONE INCLUDES:

COMPLETION OF FOUR "LIMITS OF TECHNOLOGY" RETRIEVAL DEMONSTRATIONS, AND RETRIEVAL OF SUFFICIENT SST WASTE-CONTAINING NO LESS THAN 800 CURIES OF CONTAMINANTS OF CONCERN AND OCCUPYING A MINIMUM OF 3 MILLION GALLONS OF DST SPACE. "LIMITS OF TECHNOLOGY" RETRIEVAL DEMONSTRATIONS WILL SEEK TO IMPROVE UPON PAST PRACTICE-SLUICING (PPS) BASELINE TECHNOLOGY INCLUDING BUT NOT

09/30/2006
OR ASOTHERWISEINDICATEDWITHIN THEDESCRIPTIVETEXT OF THISMILESTONE

LIMITED TO RETRIEVAL EFFICIENCY, LEAK LOSS DURING-RETRIEVAL, AND LEAK DETECTION MITIGATION AND MONITORING-(LDMM).

RETRIEVAL DEMONSTRATIONS SHALL BE CONDUCTED FOR 1) SALTCAKE DISSOLUTION (AT TANK S-112), 2) MODIFIED SLUICING-(AT TANK C-106, 3) VACUUM RETRIEVAL (AT DOE'S C-200 SERIES-TANKS), AND 4) MRS (ROBOTIC TECHNOLOGIES) + VACUUM-RETRIEVAL AT TANK C-110,C-111,OR C-101 (WHICHEVER IS-RETRIEVED FIRST).—

WASTE SHALL BE RETRIEVED TO THE DST SYSTEM TO THE LIMITS-OF-THE TECHNOLOGY (OR TECHNOLOGIES) SELECTED.
SELECTED-SLUDGE/HARD HEEL TECHNOLOGY (OR-TECHNOLOGIES) MUST SEEK TO IMPROVE UPON THE PAST-PRACTICE SLUICING BASELINE IN THE AREAS OF EXPECTED RETRIEVAL EFFICIENCY, LEAK LOSS POTENTIAL, AND SUITABILITY-FOR USE IN POTENTIALLY LEAKING TANKS.

INSTALLATION AND IMPLEMENTATION OF FULL SCALE EXTERNALTANK LEAK DETECTION, MONITORING, AND MITIGATION (LDMM)
TECHNOLOGIES FOR THE FIRST THREE 100-SERIES TANK
RETRIEVALS FOLLOWING TANK S-112. THE BASELINE LDMMSYSTEM (I.E. DRYWELL LOGGING) IS TO BE-SUPPLEMENTED,
USING AN EXTERNAL-TANK ELECTRICAL RESISTIVITY (ER)
METHOD. THE ELECTRICAL RESISTIVITY SYSTEM WILL BEDESIGNED FOR IMPLEMENTATION AT THE THREE TANKS ANDFULLY DEPLOYED AT THE FIRST TANK TO BE RETRIEVED.
CRITERIA FOR THE DEMONSTRATION AT THE FIRST TANK SHALLBE AGREED TO BY DOE AND ECOLOGY BEFORE THE TECHNOLOGY
IS INSTALLED.

- DOE WILL SUBMIT FOR ECOLOGY APPROVAL A TEST PLAN-INCLUDING AN INJECTION TEST, DESCRIBING THE CRITERIA AND METHOD TO TEST THE SELECTED ER. 90 DAYS AFTER THE COMPLETION OF THE TESTING, DOE WILL SUBMIT AN EVALUATION REPORT AND ANY RECOMMENDATION FOR FURTHER DEPLOYMENT.
- IF THE PARTIES AGREE THAT THE METHOD IS SUITABLE, ER
 WILL BE DEPLOYED IN THE SUBSEQUENT APPROPRIATE
 RETRIEVAL TANKS.
- IF THE PARTIES DO NOT AGREE THAT ER IS SUITABLE FOR SUBSEQUENT RETRIEVALS, OR IF THE DATA IS-INCONCLUSIVE, ECOLOGY WILL REQUIRE APPLICATION-AND/OR DEVELOPMENT OF APPROPRIATE LDMM-TECHNOLOGY IN LIEU OF OR IN ADDITION TO ER.
- SUBMITTAL AS AGREEMENT PRIMARY DOCUMENTS, TANK-WASTE RETRIEVAL WORK PLANS FOR TANKS C-101, C-102, C-103, C-104, C-105, C-107, C-108, C-109, C-110, C-111, C-112, C-201, C-202, C-203, AND C-204
 - TANKS C-201, C-202, C-203 AND C-204, (PROVIDE SUPPLEMENTAL INFORMATION BY MARCH 31, 2004 TO INCLUDE START OF RETRIEVAL DATE AS PER APPENDIX

I-REQUIREMENTS).

- DOE SHALL SUBMIT TWRWP(S) FOR 2 100-SERIES TANKS BY JULY 31, 2004.
- DOE SHALL SUBMIT TWRWP(S) FOR 4 100-SERIES-TANKS BY OCTOBER 31, 2004.
- DOE SHALL SUBMIT TWRWP(S) FOR 5 100-SERIES TANKS BY JANUARY 31, 2005.
- SUBMITTAL TO ECOLOGY OF CERTIFIED COMPONENT-CLOSURE ACTIVITY PLANS FOR THE PRECEDING SSTs IN-ACCORDANCE WITH AGREEMENT APPENDIX I.
- SUBMITTAL OF WMA INTEGRATION PLANS FOR WMA-C AND ONE ADDITIONAL WMA BY JUNE 30, 2005.

THE SELECTION OF ADDITIONAL SSTs FOR WASTE RETRIEVAL SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF AGREEMENT APPENDIX I. SECTION 2.1.2.

IN ADDITION TO THE PRECEDING, DOE WILL PROCESS A BASELINE-CHANGE CONTROL, AND ASSOCIATED WORK DIRECTIVES AS MAY BE NECESSARY, CONSISTENT WITH THIS AGREEMENT AND THE-PARTIES' MILESTONE M-45-04-01 CHANGE REQUEST NO LATER THAN SEPTEMBER 30, 2004.

PROCEDURES FOR MODIFYING THE RETRIEVAL CRITERIA LISTED-WITHIN THE ASSOCIATED MILESTONES, AND FOR PROCESSING-REQUESTS FOR EXCEPTIONS TO THE CRITERIA ARE OUTLINED IN-APPENDIX "H" TO THIS AGREEMENT.

M-045-00C

INITIATE NEGOTIATION OF SST WASTE RETRIEVAL AND CLOSURE ACTIVITIES AND ASSOCIATED SCHEDULES (FOR THE PERIOD FEBRUARY 2007 THROUGH AUGUST 2008).

THESE NEGOTIATIONS SHALL TAKE INTO ACCOUNT VARIABLES SUCH AS WORK IN PROGRESS, E.G., DOE'S TANK WASTE TREATMENT COMPLEX ACQUISITION INITIATIVE, INFORMATION PERTINANT TO, AND THE OUTCOME OF THE PARTIES' WTP PROCESSING CAPACITY AND SUPPLEMENTAL TREATMENT TECHNOLOGY VIABILITY NEGOTIATIONS (PURSUANT TO AGREEMENT MILESTONE M-62-08), AND ENVIRONMENTAL AND HUMAN HEALTH RISKS ASSOCIATED WITH RELEASES FROM DOE'S SSTs. NEGOTIATIONS SHALL BE DESIGNED TO ESTABLISH A SUFFICIENT NUMBER OF AGREEMENT MILESTONES AND TARGET DATES TO EFFECTIVELY DRIVE EACH PHASE OF WORK INCLUDING-BUT NOT LIMITED TO: 1.) WASTE RETRIEVAL TECHNOLOGY DEVELOPMENT, 2.) RETRIEVAL PERFORMANCE EVALUATIONS, 3.) LEAK DETECTION, MONITORING, AND MITIGATION, 4.) SELECTION OF SST RETRIEVALS, 5.) DESIGN, CONSTRUCTION AND OPERATION OF SST WASTE RETRIEVAL SYSTEMS, 6.) CLOSURE PLANNING AND CLOSURE PLAN DEVELOPMENT, 7.) SCHEDULES FOR WMA ANCILLARY EQUIPMENT WASTE RETRIEVAL AND CLOSURE, 8.) OTHER ACTIVITIES AS MAY BE NECESSARY TO SUPPORT WMA CLOSURES, AND 9.) ACQUISITION OF ADDITIONAL COMPLIANT STORAGE SPACE, E.G., NEW DSTs, IF NEEDED.

09/30/2006

DOE, AND DOE'S CONTRACTOR(S) WILL RETRIEVE AND TRANSFER SST WASTES INTO THE DST SYSTEM AS SOON AS SPACE IS MADEAVAILABLE, ALLOWING DST SPACE FOR TREATMENT PLANT FEED STAGING AND SAFETY ISSUE RESOLUTION. TRANSFER OF SST WASTE WILL BE MADE ONCE SUFFICIENT DST SYSTEM SPACE IS AVAILABLE TO ALLOW A TRANSFER OF AN OPERATIONALLY PRACTICABLE VOLUME OF WASTE. SST WASTE WILL BE RETRIEVED ON A PRIORITY BASIS WITH THE GOALS OF REDUCING ENVIRONMENTAL RISK AND TREATMENT PROCESS OPTIMIZATION. DOE AND ECOLOGY WILL AGREE ON THE CRITERIA TO DETERMINE ENVIRONMENTAL RISK REDUCTION.

THE ECOLOGY AND DOE NEGOTIATIONS UNDER THIS MILESTONE SHALL BE COMPLETED WITHIN 120 DAYS. IN THE EVENT THE PARTIES DO NOT REACH AGREEMENT WITHIN THIS TIMEFRAME, THE NEGOTIATIONS WILL BE RESOLVED AS A RESOLUTION OF DISPUTE VIA FINAL DETERMINATION OF THE DIRECTOR OF ECOLOGY PURSUANT TO HEFACO ARTICLE VIII. UNLESS OTHERWISE AGREED BY THE ECOLOGY AND DOE, THIS FINAL DETERMINATION WILL BE ISSUED WITHIN 150 DAYS OF INITIATION OF NEGOTIATIONS.

M-045-00D

INITIATE NEGOTIATION OF THE SST WASTE RETRIEVAL AND CLOSURE ACTIVITIES FOR THE PERIOD SEPTEMBER 2008 TO SEPTEMBER 2013.

01/31/2008

THESE NEGOTIATIONS SHALL TAKE INTO ACCOUNT VARIABLES SUCH AS WORK IN PROGRESS, E.G., PHASE I RFI REPORTS OF ALL SST WMAs (PURSUANT TO AGREEMENT MILESTONE M-45-55). CORRECTIVE MEASURES STUDIES FOR ALL SST WMAs (PURSUANT TO AGREEMENT MILESTONE M-45-56, DOE'S TANK WASTE TREATMENT COMPLEX ACQUISITION INITIATIVE, INFORMATION PERTINANT TO, AND THE OUTCOME OF THE PARTIES' WTP PROCESSING CAPACITY AND SUPPLEMENTAL TREATMENT TECHNOLOGY VIABILITY NEGOTIATIONS (PURSUANT TO AGREEMENT MILESTONE M-62-08), AND ENVIRONMENTAL AND HUMAN HEALTH RISKS ASSOCIATED WITH RELEASES FROM DOE'S SSTs. NEGOTIATIONS SHALL BE DESIGNED TO ESTABLISH A SUFFICIENT NUMBER OF AGREEMENT MILESTONES AND TARGET DATES TO EFFECTIVELY DRIVE EACH PHASE OF WORK INCLUDING BUT NOT LIMITED TO: 1.) WASTE RETRIEVAL TECHNOLOGY DEVELOPMENT, 2.) RETRIEVAL PERFORMANCE EVALUATIONS, 3.) LEAK DETECTION, MONITORING, AND MITIGATION, 4.) SELECTION-OF SST RETRIEVAL SEQUENCE, 5.) DESIGN, CONSTRUCTION AND OPERATION OF SST WASTE RETRIEVAL SYSTEMS, 6.) CLOSURE PLANNING AND CLOSURE PLAN DEVELOPMENT, 7.) SCHEDULES FOR WMA ANCILLARY EQUIPMENT WASTE RETRIEVAL AND CLOSURE, 8.) OTHER ACTIVITIES AS MAY BE NECESSARY TO SUPPORT WMA CLOSURES, AND 9.) ACQUISITION OF ADDITIONAL-COMPLIANT STORAGE SPACE, E.G., NEW DSTs, IF NEEDED.

DOE, AND DOE'S CONTRACTOR(S) WILL RETRIEVE AND TRANSFER SST-WASTE INTO THE DST SYSTEM AS SOON AS SPACE IS MADE AVAILABLE, ALLOWING DST SPACE FOR TREATMENT PLANT FEED STAGING AND SAFETY ISSUE RESOLUTION. TRANSFER OF SST-WASTE WILL BE MADE ONCE SUFFICIENT DST SYSTEM SPACE IS AVAILABLE TO ALLOW A TRANSFER OF AN OPERATIONALLY

PRACTICABLE VOLUME OF WASTE. SST WASTE WILL BE RETRIEVED ON USING THE GOALS OF REDUCING ENVIRONMENTAL RISK AND TREATMENT PROCESS OPTIMIZATION. THE ECOLOGY AND DOE NEGOTIATIONS UNDER THIS MILESTONE SHALL BE COMPLETED WITHIN 150 DAYS. IN THE EVENT THE PARTIES DO NOT REACH AGREEMENT WITHIN THIS TIMEFRAME, THE NEGOTIATIONS WILL BE RESOLVED AS A RESOLUTION OF DISPUTE VIA FINAL DETERMINATION OF THE DIRECTOR OF ECOLOGY PURSUANT TO HEFACO ARTICLE VIII. UNLESSOTHERWISE AGREED BY THE ECOLOGY AND DOE, THIS FINAL DETERMINATION WILL BE ISSUED WITHIN 180 DAYS OF INITIATION	
OF NEGOTIATIONS.	
INITIATE NEGOTIATION OF SST WASTE RETRIEVAL AND CLOSURE ACTIVITIES FOR THE REMAINDER OF THE SST PROGRAM. THESE NEGOTIATIONS WILL ESTABLISH REGULATORY—REQUIREMENTS FOR THE REMAINDER OF THE SST WASTE—RETRIEVAL AND CLOSURE PROGRAM (THROUGH COMPLETION OF CLOSURE AT ALL SST WMAs). NEGOTIATIONS WILL INCLUDE—MODIFICATION AS MAY BE NECESSARY OF COMPLETION DATES—FOR SST WASTE RETRIEVAL AND SST WMA CLOSURE BASED ON—EXPERIENCE GAINED FROM PHASE I RFI REPORTS OF ALL SST—WMAS (PURSUANT TO AGREEMENT MILESTONE M-45-55), CORRECTIVE MEASURES STUDIES FOR ALL SST—WMAS (PURSUANT TO AGREEMENT MILESTONE M-45-56), DOE'S TANK WASTE—TREATMENT—COMPLEX ACQUISITION INITIATIVE, INFORMATION—PERTINANT TO, AND THE OUTCOME OF THE PARTIES' WTP—PROCESSING CAPACITY AND SUPPLEMENTAL TREATMENT—TECHNOLOGY VIABILITY NEGOTIATIONS (PURSUANT TO-AGREEMENT MILESTONE M-62-08), AND ENVIRONMENTAL AND HUMAN HEALTH RISKS ASSOCIATED WITH RELEASES FROM DOE'S—SSTS.	10/31/2012
DOE, AND DOE'S CONTRACTOR(S) WILL RETRIEVE AND TRANSFER SST WASTES INTO THE DST SYSTEM AS SOON AS SPACE IS MADE AVAILABLE, ALLOWING DST SPACE FOR TREATMENT PLANT FEED STAGING AND SAFETY ISSUE RESOLUTION. TRANSFER OF SST WASTE WILL BE MADE ONCE SUFFICIENT DST SYSTEM SPACE IS AVAILABLE TO ALLOW A TRANSFER OF AN OPERATIONALLY PRACTICABLE VOLUME OF WASTE. SST WASTE WILL BERETRIEVED ON A PRIORITY BASIS WITH THE CRITERIA OF REDUCING ENVIRONMENTAL RISK AND TREATMENT PROCESSOPTIMIZATION. THE ECOLOGY AND DOE NEGOTIATIONS UNDER THIS MILESTONE SHALL BE COMPLETED WITHIN 120 DAYS. IN THE EVENT THE PARTIES DO NOT REACH AGREEMENT WITHIN THIS TIMEFRAME, THE NEGOTIATIONS WILL BE RESOLVED AS A RESOLUTION OF DISPUTE VIA FINAL DETERMINATION OF THE DIRECTOR OF ECOLOGY PURSUANT TO HEFACO ARTICLE VIII. UNLESSOTHERWISE AGREED BY THE ECOLOGY AND DOE, THIS FINAL DETERMINATION WILL BE ISSUED WITHIN 150 DAYS OF INITIATION OF NEGOTIATIONS.	
	RETRIEVED ON USING THE GOALS OF REDUCING ENVIRONMENTAL RISK AND TREATMENT PROCESS OPTIMIZATION. THE ECOLOGY AND DOE NEGOTIATIONS UNDER THIS MILESTONE—SHALL BE COMPLETED WITHIN 140 DAYS.—IN THE EVENT THE PARTIES DO NOT REACH AGREEMENT WITHIN THIS TIMERRAME, THE NEGOTIATIONS WILL BE RESOLVED AS A RESOLUTION OF DISPUTE VIA FINAL DETERMINATION OF THE DIRECTOR OF ECOLOGY PURSUANT TO HEFACO ARTICLE VIII.—UNLESS OTHERWISE AGREED BY THE ECOLOGY AND DOE, THIS FINAL DETERMINATION WILL BE ISSUED WITHIN 180 DAYS OF INITIATION OF NEGOTIATIONS. INITIATE NEGOTIATION OF SST WASTE RETRIEVAL AND CLOSURE ACTIVITIES FOR THE REMAINDER OF THE SST PROGRAM. THESE NEGOTIATIONS WILL ESTABLISH REGULATORY REQUIREMENTS FOR THE REMAINDER OF THE SST WASTE RETRIEVAL AND CLOSURE ACTIVITIES FOR THE REMAINDER OF THE SST WASTE RETRIEVAL AND CLOSURE PROGRAM (THROUGH COMPLETION OF CLOSURE AT ALL SST WMAS). NEGOTIATIONS WILL INCLUDE MODIFICATION AS MAY BE NECESSARY OF COMPLETION DATES FOR SST WASTE RETRIEVAL AND SST WIMA CLOSURE BASED ON EXPERIENCE GAINED FROM PHASE I RFI REPORTS OF ALL SST WMAS (PURSUANT TO AGREEMENT MILESTONE M-45-56), DOE'S TANK WASTE TREATMENT COMPLEX ACQUISITION INITIATIVE, INFORMATION PERTINANT TO, AND THE OUTCOME OF THE PARTIES: WTP. PROCESSING CAPACITY AND SUPPLEMENTAL TREATMENT TECHNOLOGY VABILITY PREGOTIATIONS (PURSUANT TO AGREEMENT MILESTONE M-55-69, DOE'S TANK WASTE TECHNOLOGY VABILITY PREGOTIATIONS (PURSUANT TO AGREEMENT MILESTONE M-55-69, DOE'S TANK WASTE TREATMENT TO, AND THE OUTCOME OF THE PARTIES: WTP. PROCESSING CAPACITY AND SUPPLEMENTAL TREATMENT TO AGREEMENT MILESTONE M-55-69, DOE'S TANK WASTE TECHNOLOGY VABILITY PREGOTIATIONS (PURSUANT TO AGREEMENT MILESTONE M-55-69, AND ENVIRONMENTAL AND HUMAN HEALTH RISKS ASSOCIATED WITH RELEASES FROM DOE'S STS. DOE, AND DOE'S CONTRACTOR(S) WILL RETRIEVE AND TRANSFER ST WASTE WILL BE MADE ONCE SUFFICIENT DST SYSTEM SPACE IS AVAILABLE TO ALLOW A TRANSFER OF AN OPERATIONALLY PRACTICABLE VOLUME OF WASTE. SST WASTE WILL BE RETRIEVED ON A PRIORITY BASIS WITH THE CRITERIA OF R

M-045-02	SUBMIT BIENNIAL UPDATE TO SST RETRIEVAL SEQUENCE	03/01/2006
W 0 10 02	DOCUMENT (AGREEMENT APPENDIX I. SECTION 2.1.2), DOUBLE	OR AS
	SHELL TANK SPACE EVALUATION DOCUMENT AND ECOLOGY	OTHERWISE
	CONCURRENCE OF ADDITIONAL TANK ACQUISITION.	INDICATED
	TO THE STATE OF TH	WITHIN THE
	THIS PROVIDES FOR A BIENNIAL UPDATE OF A SST RETRIEVAL	DESCRIPTIVE
	SEQUENCE DOCUMENT THAT WILL DEFINE THE TANK RETRIEVAL	TEXT OF THIS
	SEQUENCE, SELECTION CRITERIA AND, RATIONALE, REFERENCE	MILESTONE
	RETRIEVAL METHOD(S) FOR EACH TANK, AND THE ESTIMATED	111111111111111111111111111111111111111
	RETRIEVAL SCHEDULES. THE RETRIEVAL SEQUENCE DOCUMENT	
	WILL LIST RETRIEVAL METHODOLOGIES TO BE EMPLOYED AND	
	ESTIMATED WASTE VOLUMES TO BE GENERATED DURING	·
	RETRIEVAL (TO BE TRANSFERRED TO THE DST's OR OTHER	
	AVAILABLE SAFE STORAGE). THE REPORT WILL ALSO LIST TANK	
	SELECTION RATIONALE BASED ON THE PRIMARY OBJECTIVE OF	
	MAXIMIZING RISK REDUCTION THROUGH THE RETRIEVAL OF	
	MOBILE, LONG-LIVED RADIONUCLIDES OR POTENTIAL AIRBORNE	
	CONTAMINANTS AND PRINCIPLE NON RADIOLOGICAL HAZARDOUS	
	CONSTITUENTS IN A MANNER WHICH IS SENSITIVE TO WASTE	
	TREATMENT FACILITY REQUIREMENTS AND INFRASTRUCTURE	
	CONSTRAINTS. THE SEQUENCING WILL ALSO TAKE IN	
	CONSIDERATION DST SPACE AND DST WASTE COMPATABILITY	
	WHEN SELECTING THE SST RETRIEVAL SEQUENCE. TANK	
	SELECTION FOR RETRIEVAL WILL TAKE INTO CONSIDERATION THE	
	CLOSURE OF WASTE MANAGEMENT AREAS AND RESOURCE	
	OPTIMIZATION. THE BIENNIAL UPDATES WILL BE SUBMITTED TO	
	ECOLOGY FOR APPROVAL AS AGREEMENT PRIMARY DOCUMENTS:	
	THIS ALSO PROVIDES FOR A BIENNIAL UPDATE OF THE DOUBLE	
	SHELL TANK SPACE EVALUATION DOCUMENT. THIS NEW	,
	MILESTONE REPLACED MILESTONE M-31-02 AND SUBSEQUENTLY	
	M-46-00K, M-46-OOL, AND M-46-00M, ETC. A TANK VOLUME	
	PROJECTION REPORT SHALL BE SUBMITTED ON A BIENNIAL BASIS	
	TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE	
	DISCUSSIONS COVERING ALL ASSUMPTIONS WHICH FORM THE	
	BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE OR	
	SHALL BE ACCOMPANIED BY DOE'S PLANS FOR ACQUISITION OF	
	ADDITIONAL TANKS BASED ON THE TANK VOLUME PROJECTION.	<i>t</i>
	ECOLOGY CONCURRENCE OF ADDITIONAL TANK ACQUISITION	
	WITHIN 60 DAYS. WITHIN 60 DAYS OF RECEIVING THE DST TANK	
	SPACE EVALUATION DOCUMENT, THE THREE PARTIES SHALL	
	MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR	
	ACQUISITION OF ADDITIONAL TANKS.	
M-045-02N	ECOLOGY CONCURRENCE OF ADDITIONAL TANK ACQUISITION	AS OTHERWISE
(Last Paragraph)	WITHIN 60 DAYS. WITHIN 60 DAYS OF RECEIVING THE DST TANK	INDICATED
	SPACE EVALUATION DOCUMENT, THE THREE PARTIES SHALL	WITHIN THE
	MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR	DESCRIPTIVE
	ACQUISITION OF ADDITIONAL TANKS.	TEXT OF THIS
		MILESTONE
M-045-02 O, P and	SUBMIT BIENNIAL UPDATE TO SST RETRIEVAL SEQUENCE	03/01/2010
beyond	DOCUMENT (AGREEMENT APPENDIX I. SECTION 2.1.2), DOUBLE	OR AS
anapore	SHELL TANK SPACE EVALUATION DOCUMENT AND ECOLOGY	OTHERWISE -
	CONCURRENCE OF ADDITIONAL TANK ACQUISITION.	INDICATED
		WITHIN THE
	THIS PROVIDES FOR A BIENNIAL UPDATE OF A SST RETRIEVAL	DESCRIPTIVE
	SEQUENCE DOCUMENT THAT WILL DEFINE THE TANK RETRIEVAL	TEXT OF THIS
1	DOCUMENT (AGREEMENT APPENDIX I. SECTION 2.1.2), DOUBLE- SHELL TANK SPACE EVALUATION DOCUMENT AND ECOLOGY- CONCURRENCE OF ADDITIONAL TANK ACQUISITION: THIS PROVIDES FOR A BIENNIAL UPDATE OF A SST RETRIEVAL	OR AS- OTHERWISE- INDICATED- WITHIN THE- DESCRIPTIVE-

	SEQUENCE, SELECTION CRITERIA AND, RATIONALE, REFERENCE RETRIEVAL METHOD(S) FOR EACH TANK, AND THE ESTIMATED RETRIEVAL SCHEDULES. THE RETRIEVAL SEQUENCE DOCUMENT WILL LIST RETRIEVAL METHODOLOGIES TO BE EMPLOYED AND ESTIMATED WASTE VOLUMES TO BE GENERATED DURING-RETRIEVAL (TO BE TRANSFERRED TO THE DST'S OR OTHER AVAILABLE SAFE STORAGE). THE REPORT WILL ALSO LIST TANK SELECTION RATIONALE BASED ON THE PRIMARY OBJECTIVE OF MAXIMIZING RISK REDUCTION THROUGH THE RETRIEVAL OF MOBILE, LONG-LIVED RADIONUCLIDES OR POTENTIAL AIRBORNE-CONTAMINANTS AND PRINCIPLE NON RADIOLOGICAL HAZARDOUS CONSTITUENTS IN A MANNER WHICH IS SENSITIVE TO WASTE-TREATMENT FACILITY REQUIREMENTS AND INFRASTRUCTURE-CONSTRAINTS. THE SEQUENCING WILL ALSO TAKE IN CONSIDERATION DST SPACE AND DST WASTE COMPATABILITY WHEN SELECTING THE SST RETRIEVAL SEQUENCE. TANK SELECTION FOR RETRIEVAL WILL TAKE INTO CONSIDERATION THE CLOSURE OF WASTE MANAGEMENT AREAS AND RESOURCE-OPTIMIZATION. THE BIENNIAL UPDATES WILL BE SUBMITTED TO ECOLOGY FOR APPROVAL AS AGREEMENT PRIMARY DOCUMENTS. THIS ALSO PROVIDES FOR A BIENNIAL UPDATE OF THE DOUBLE-SHELL TANK SPACE EVALUATION DOCUMENT. THIS NEW MILLESTONE REPLACED MILESTONE M-31-02 AND SUBSEQUENTLY M-46-00K, M-46-00L, AND M-46-00M, ETC. A TANK VOLUME-PROJECTION REPORT SHALL BE SUBMITTED ON A BIENNIAL BASIS-TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE-DISCUSSIONS COVERING ALL ASSUMPTIONS WHICH FORM THE BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE-DISCUSSIONS COVERING ALL ASSUMPTIONS WHICH FORM THE BASIS OF THE PROJECTION. THE TANK VOLUME PROJECTION. ECOLOGY CONCURRENCE OF ADDITIONAL TANK ACQUISITION-WITHIN 60 DAYS. WITHIN 60 DAYS OF RECEIVING THE DST TANK SPACE EVALUATION DOCUMENT, THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR ACQUISITION-WITHIN 60 DAYS. WITHIN 61 DAYS OF RECEIVING THE DST TANK. SPACE EVALUATION DOCUMENT, THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR	MILESTONE
M-045-05	RETRIEVE WASTE FROM ALL REMAINING SINGLE-SHELL TANKS. COMPLETE WASTE RETRIEVAL FROM ALL REMAINING SINGLE-SHELL TANKS. RETRIEVAL STANDARDS AND COMPLETION-DEFINITIONS ARE PROVIDED UNDER THE MAJOR MILESTONE. THE SCHEDULE REFLECTS RETRIEVAL ACTIVITIES ON A FARM-BY-FARM BASIS. IT ALSO ALLOWS FLEXIBILITY TO RETRIEVE TANKS FROM-VARIOUS FARMS IF DESIRED TO SUPPORT SAFETY ISSUE-RESOLUTION, PRETREATMENT OR DISPOSAL FEED-REQUIREMENTS, OR OTHER PRIORITIES.	09/30/2018
M-045-05-T05	INITIATE TANK RETRIEVAL FROM FIVE ADDITIONAL SINGLE-SHELL TANKS.	09/30/2007
M-045-05-T06	INITIATE TANK RETRIEVAL FROM FIVE ADDITIONAL SINGLE-SHELL TANKS.	09/30/2008
M-045-05-T07	INITIATE TANK RETRIEVAL FROM SEVEN ADDITIONAL SINGLE- SHELL TANKS.	09/30/2009

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M-045-05-T08	INITIATE TANK RETRIEVAL FROM EIGHT ADDITIONAL SINGLE-SHELL TANKS.	09/30/2010
M-045-05-T09	INITIATE TANK RETRIEVAL FROM TEN ADDITIONAL SINGLE-SHELL TANKS.	09/30/2011
M-045-05-T10	INITIATE TANK RETRIEVAL FROM 12 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2012
M-045-05-T11	INITIATE TANK RETRIEVAL FROM 14 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2013
M-045-05-T12	INITIATE TANK RETRIEVAL FROM 17 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2014
M-045-05-T13	INITIATE TANK RETRIEVAL FROM 20 ADDITIONAL SINGLE-SHELL-TANKS.	09/30/2015
M-045-05-T14	INITIATE TANK RETRIEVAL FROM 20 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2016
M-045-05-T15	INITIATE TANK RETRIEVAL FROM 20 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2017
M-045-05A	COMPLETE WASTE RETRIEVAL FROM TANK S-102.	03/31/2007
	THE S-102 WASTE-RETRIEVAL TECHNOLOGY (OR TECHNOLOGIES) WILL BE SELECTED BASED ON THE PRINCIPLE CRITERIA OF MAXIMIZING THE RETRIEVAL OF MOBILE, LONG-LIVED RADIOISOTOPES AND NON-RADIOLOGICAL HAZARDOUS CONSTITUENTS. THE PARTIES RECOGNIZE AND AGREE THAT THIS ACTION IS FOR WASTE RETRIEVAL PURPOSES. RETRIEVAL SHALL BE PERFORMED IN ACCORDANCE WITH GOALS AND CRITERIA SPECIFIED IN M-45-00.	
	COMPLETION OF S-102 WASTE RETRIEVAL IS SUBJECT TO SAFE- STORAGE SPACE AVAILABILITY CONSISTENT WITH M-45-00B.	
M-045-06	COMPLETE CLOSURE OF ALL SINGLE-SHELL TANK FARMS IN ACCORDANCE WITH APPROVED CLOSURE/POST CLOSURE-PLAN(S).	09/30/2024
M-045-06-T03	INITIATE CLOSURE ACTIONS ON A WMA BASIS. CLOSURE SHALL FOLLOW COMPLETION OF THE RETRIEVAL ACTIONS UNDER PROPOSED MILESTONE M-45-05. CLOSURE WILL BE DEFINED IN AN APPROVED CLOSURE PLAN FOR THE DEMONSTRATION FARM. FINAL CLOSURE IS DEFINED AS ECOLOGY ACCEPTANCE OF DOE'S CERTIFICATION OF COMPLETION OF CLOSURE.	03/31/2012
M-045-06-T04	COMPLETE CLOSURE ACTIONS ON ONE WMA.	03/31/2014
M-045-13	INTERIM COMPLETION OF TANK S-112 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT.	06/30/2011 OR AS OTHERWISE INDICATED
	THE S-112 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT WILL BE CONSIDERED INTERIM COMPLETE WHEN THE FOLLOWING CRITERIA HAVE BEEN MET:	WITHIN THE DESCRIPTIVE TEXT OF THIS

		MILESTONE
	1. FULL SCALE WASTE RETRIEVAL HAS BEEN COMPLETED IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS INCLUDING WASHINGTON'S HAZARDOUS WASTE MANAGEMENT ACT, REQUIREMENTS SET BY THIS AGREEMENT, AND THE APPROVED S-112 SALTCAKE WASTE RETRIEVAL TECHNOLOGY FUNCTIONS AND REQUIREMENTS DOCUMENT (DOE WILL SUBMIT A RETRIEVAL DATA REPORT PURSUANT TO AGREEMENT APPENDIX I) BY DECEMBER 31, 2007.	
	 REMAINING WASTES HAVE BEEN ADEQUATELY CHARACTERIZED, AND A RISK ASSESSMENT HAS BEEN COMPLETED FOR RESIDUALS THAT REMAIN IN THE TANK BY DECEMBER 31, 2007. 	
	3. AN UPDATE TO THE S-112 COMPONENT CLOSURE ACTIVITY PLAN HAS BEEN SUBMITTED BY DOE.	
	4. IF APPROPRIATE, DOE HAS REQUESTED AN EXCEPTION TO WASTE RETRIEVAL CRITERIA PURSUANT TO AGREEMENT APPENDIX H.	
M-045-15	INTERIM COMPLETION OF TANK S-102 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT.	06/30/2011
	THE S-102 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT WILL BE CONSIDERED INTERIM COMPLETE WHEN THE FOLLOWING CRITERIA HAVE BEEN MET: 1. FULL SCALE WASTE RETRIEVAL HAS BEEN COMPLETED IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS INCLUDING WASHINGTON'S HAZARDOUS WASTE MANAGEMENT ACT, REQUIREMENTS SET BY THIS AGREEMENT, AND THE APPROVED S- 102 INITIAL WASTE RETRIEVAL FUNCTIONS AND REQUIREMENTS DOCUMENT (DOE WILL SUBMIT A RETRIEVAL DATA REPORT PURSUANT TO AGREEMENT APPENDIX I). NOTE: THIS CRITERION AND DUE DATE DOES NOT MODIFY MILESTONE M-045-05A.	
	2. REMAINING WASTES HAVE BEEN ADEQUATELY CHARACTERIZED, AND A RISK ASSESSMENT HAS BEEN COMPLETED FOR RESIDUALS THAT REMAIN IN THE TANK.	
	3. AN UPDATE TO THE S-102 COMPONENT CLOSURE ACTIVITY PLAN HAS BEEN SUBMITTED BY DOE.	
	4. IF APPROPRIATE, DOE HAS REQUESTED AN EXCEPTION TO WASTE RETRIEVAL CRITERIA PURSUANT TO AGREEMENT APPENDIX H.	
M-045-56	COMPLETE IMPLEMENTATION OF AGREED-TO INTERIM MEASURES.	To Be Determined
	SPECIFIC INTERIM MEASURES WILL BE IMPLEMENTED PURSUANT TO AGREEMENT COMMITMENTS (E.G., SEE INTERIM MILESTONE M-45-57). INTERIM MEASURES MAY ALSO BE REQUIRED BY	

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	ECOLOGY, PROPOSED BY DOE IN THE SST WMA RFI REPORT (M-45-55) (OR ENGINEERING STUDIES INCLUDING THAT ADDRESSED IN TARGET MILESTONE M-45-56-T01), OR ESTABLISHED BY AGREEMENT OF THE PARTIES AT ANY TIME DURING THE CORRECTIVE ACTION PROCESS. ALSO SEE TABLE 1 OF AGREEMENT CHANGE CONTROL FORM #M-45-98-03. ECOLOGY AND DOE AGREE, AT A MINIMUM, TO MEET YEARLY (BY JULY OR AS NEEDED TO SUPPORT ANNUAL BUDGETING) FOR THE SPECIFIC PURPOSE OF ASSESSING THE ADEQUACY OF INFORMATION, AND THE NEED FOR THE ESTABLISHMENT OF ADDITIONAL AGREEMENT INTERIM MEASURES. ADDITIONAL AGREEMENT INTERIM MEASURES. ADDITIONAL AGREEMENT INTERIM MEASURES SHALL BE DOCUMENTED THROUGH ESTABLISHMENT OF INTERIM MILESTONES AND ASSOCIATED TARGET DATES AS AGREED NECESSARY BY THE PARTIES.	
M-045-59	CONTROL SURFACE WATER INFILTRATION PATHWAYS AS NEEDED TO CONTROL OR SIGNIFICANTLY REDUCE THE LIKELIHOOD OF MIGRATION OF SUBSURFACE CONTAMINATION TO GROUNDWATER AT THE SST WMAS (PENDING THE CMS REPORT, MILESTONE M-45-58, AND IMPLEMENTATION OF OTHER INTERIM CORRECTIVE MEASURES.	To Be Determined
	DECISIONS ON CONTROLLING SURFACE WATER INFILTRATION PATHWAYS WILL BE MADE BY EVALUATING THE ROLE OF SURFACE WATER INFILTRATION AND THE TRANSPORT OF SUBSURFACE CONTAMINATION TO GROUNDWATER. BASED ON THE CORRECTIVE MEASURES STUDY (M-45-58) INTERIM SURFACE BARRIERS AND/OR OTHER INFILTRATION CONTROLS MAY BE REQUIRED.	,
M-045-61	SUBMIT TO ECOLOGY FOR REVIEW AND APPROVAL AS AN AGREEMENT PRIMARY DOCUMENT, A PHASE 2 RCRA FACILITY INVESTIGATION/CORRECTIVE MEASURES STUDY REPORT FOR WMA C.	12/31/20 10 14
M-045-62	SUBMIT TO ECOLOGY FOR REVIEW AND APPROVAL AS AN AGREEMENT PRIMARY DOCUMENT A PHASE 2 CORRECTIVE MEASURES IMPLEMENTATION WORK PLAN FOR WMA C.	07/31/2012 06/30/2015



M-47-09-01

Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-047-00 for High-Level Radioactive Tank Waste Treatment, Storage and Disposal Facilities, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Change Number Federal Facility Agreement and Consent Order Date **Change Control Form** Do not use blue ink. Type or print using black ink. M-47-09-01 **September 24, 2009** Originator Phone The U.S. Department of Energy, the State of Washington Department of Ecology, and the U.S. Environmental Protection Agency. Class of Change [X] I - Signatories [] II - Executive Manager [] III - Project Manager Change Title Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-047-00 for High-Level Radioactive Tank Waste Treatment, Storage and Disposal Facilities, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA. Description/Justification of Change This change form reflects the results of the 2007 - 2009 Hanford negotiations on milestones for High-Level Radioactive Tank Waste Treatment, Storage and Disposal Facilities in the M-047-00 series and carries out modifications to the milestones in the HFFACO. Impact of Change The modifications in this document are conditioned upon approval of the following TPA change packages M-36-09-01, M-42-09-01, M-45-09-01, M-47-09-01, M-50-09-01, M-51-09-01, M-61-09-01, M-62-09-01, M-90-09-01, P-09-09-02 and I-09-01, and shall go into effect upon entry of the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS. **Affected Documents** The Hanford Federal Facility Agreement and Consent Order, as amended. **Approvals** Approved Disapproved DOE Date

Disapproved

Disapproved

Page 1 of 2

Approved

Approved

Date

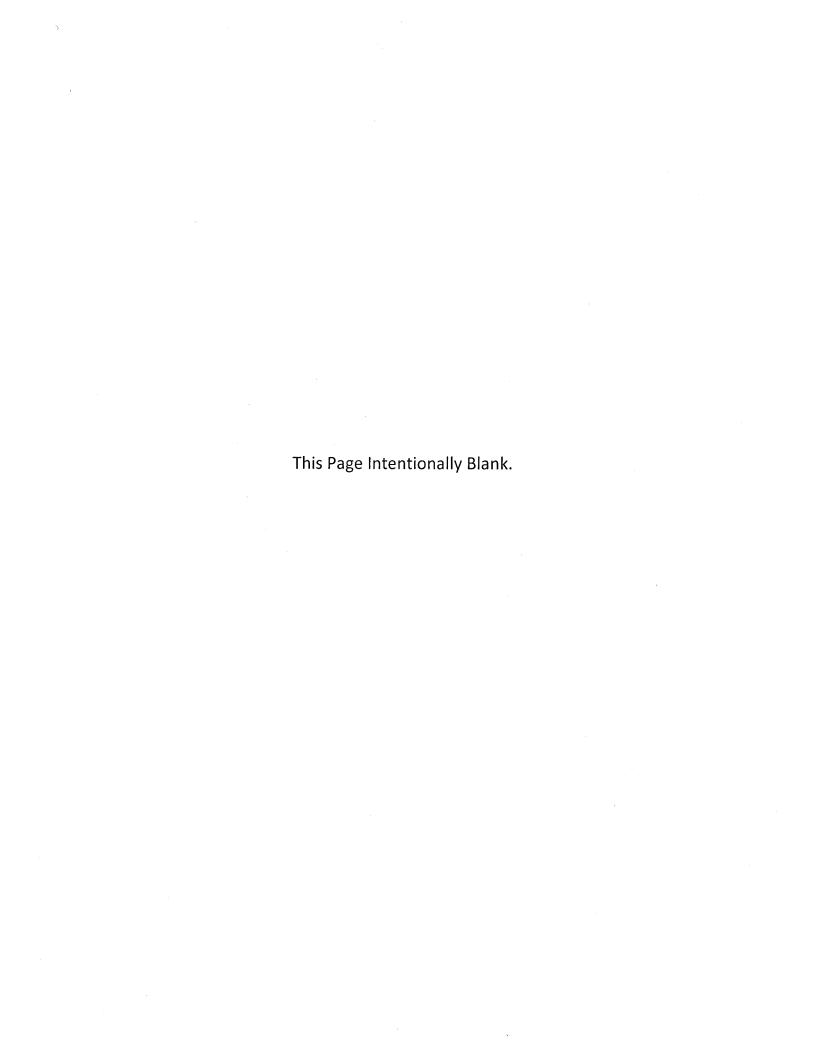
Date

EPA

Ecology

The following Major and Interim Milestones are hereby modified, as shown by use of strikeout, to indicate text deleted and shading to indicate text to be added.

M-047-00	DOE, AND ASSOCIATED CONTRACTORS SHALL COMPLETE ALL WORK NECESSARY IN SUPPORT OF THE ACQUISITION AND OPERATION OF HANFORD SITE HIGH-LEVEL RADIOACTIVE TANK-WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES. WORK INCLUDED UNDER THIS MILESTONE SERIES SHALL INCLUDE BUT IS NOT LIMITED TO WORK NECESSARY TO: (1) PROVIDE TIMELY TANK-WASTE FEED TO TANK WASTE TREATMENT FACILITIES, (2) PROVIDE ADEQUATE DOUBLE-SHELL TANK (DST) SPACE, (3) TO PROVIDE NECESSARYFACILITIES INFRASTRUCTURE INCLUDING FOR MANAGEMENT OF SECONDARY WASTE FROM THE WTP SOLID WASTE SERVICES AND SECONDARY WASTE TREATMENT-(E.G., TANK WASTE TREATMENT FACILITY LIQUID EFFLUENTS). SEE ALSO MILESTONE SERIES M-90-00. THE PARTIES WILL REVISE OR CONFIRM THE DUE DATES FOR MILESTONES M-47-01, M-47-02, M-47-03, M-47-04, M-47-05 AND M-47-05A WITHIN SIX (6) MONTHS OF AUTHORIZATION TO PROCEED (SEE MILESTONE M-62-04). REVISION, IF NECESSARY, SHALL BE CONSISTENT WITH COMPLETION OF THE PRETREATMENT AND VITRIFICATION OF NO-LESS THAN 10% OF HANFORD'S TANK WASTE BY MASS AND 25%-BY ACTIVITY BY 2/28/2048. COMPLIANCE WITH THE WORK SCHEDULES SET FORTH IN THIS M-47 SERIES IS DEFINED AS THE PERFORMANCE OF SUFFICIENT WORK TO ASSURE WITH REASONABLE CERTAINTY THAT DOE WILL ACCOMPLISH SERIES M-47 MAJOR AND INTERIM MILESTONE REQUIREMENTS. DOE INTERNAL WORK SCHEDULES (I.E., DOE APPROVED SCHEDULE BASELINES) AND ASSOCIATED WORK DIRECTIVES AND AUTHORIZATIONS SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THIS AGREEMENT. MODIFICATION OF DOE CONTRACTOR BASELINE(S) AND ISSUANCE OF ASSOCIATED DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS THAT ARE NOT CONSISTENT WITH AGREEMENT REQUIREMENTS SHALL NOT BE FINALIZED PRIOR TO APPROVAL OF AN AGREEMENT CHANGE REQUEST SUBMITTED PURSUANT TO AGREEMENT ACTION PLAN SECTION 12.0.	02/28/2018 THE DATE THAT THE WTP ACHIEVES INITIAL PLANT OPERATIONS
M-047-03A	COMPLETE STARTUP AND TURNOVER ACTIVITIES FOR WASTE- RETRIEVAL AND MOBILIZATION SYSTEMS FOR SELECTED INITIAL- HIGH-LEVEL WASTE FEED TANK.	03/31/2009
M-047-06	COMPLETE NEGOTIATION OF ADDITIONAL AGREEMENT-REQUIREMENTS (NO MORE THAN TWO INTERIM MILESTONES, TARGET DATES, AND ASSOCIATED LANGUAGE) GOVERNING WORK NECESSARY TO SUPPORT COMPLETION OF M-047-00TREATMENT-COMPLEX OPERATIONS BY 2018. SUCH INTERIM MILESTONES SHALL BE CONSISTENT WITH MILESTONES ESTABLISHED UNDER M-062-45.	06/30/ 2010 2012



M-50-09-01

Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-050-00 for Pretreatment Processing of Hanford Tank Waste, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Change Number

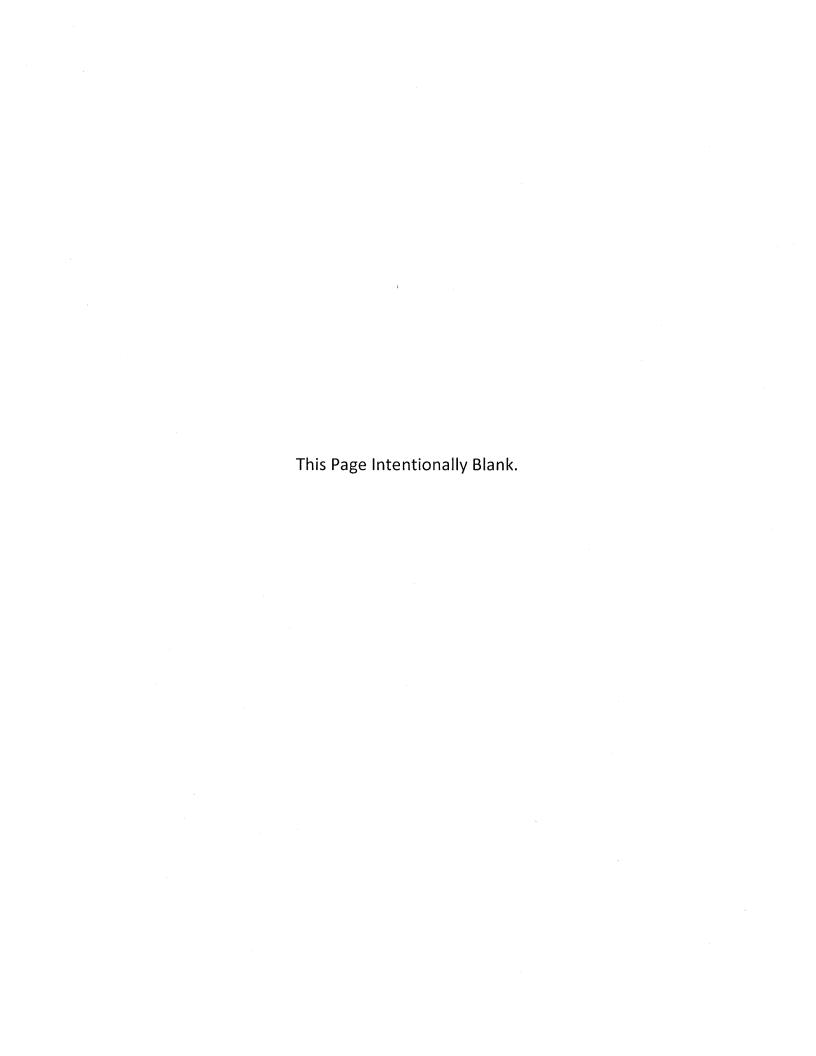
Federal Facility Agreement and Consent Order Change Control Form

Date

M-50-09-01	Do not use blue ink. Type or print using black ink.		September 22, 2009	
Originator	Phone			
The U.S. Department Environmental Protect	of Energy, the State of Washington Depa tion Agency.	rtment of Eco	logy, and the U.S.	
Class of Change				
[X] I - Signatories	[] II - Executive Manager	[] III - Project M	1anager	
Change Title				
Pretreatment Process negotiations on chang	ity Agreement and Consent Order Milesto ing of Hanford Tank Waste, resulting from es to the Hanford Federal Facility Agreem Party Agreement or TPA.	n the 2007 - 2	009 Hanford	
Description/Justification	of Change			
Pretreatment Process	ects the results of the 2007 - 2009 Hanfording of Hanford Tank Waste in the M-050-0 ilestones in the HFFACO.			
Impact of Change				
packages M-36-09-01 M-62-09-01, M-90-09-	nis document are conditioned upon approv , M-42-09-01, M-45-09-01, M-47-09-01, M 01, P-09-09-02 and I-09-01, and shall go v. DOE, Case No. 08-5085-FVS.	1-50-09-01, M	-51-09-01, M-61-09-01,	
Affected Documents				
The Hanford Federal F	Facility Agreement and Consent Order, as	amended.		
Approvals				
DOE	Approved Date	Disapproved		
EPA	Approved Date	Disapproved	Page 1 of 2	
Ecology	Approved Date	Disapproved		

The following Major Milestone is hereby **deleted**, as shown by use of strikeout, from the Hanford Federal Facility Agreement and Consent Order.

M-50-00	COMPLETE PRETREATMENT PROCESSING OF HANFORD TANK	12/31/2028
	WASTE.	



M-51-09-01

Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-051-00 for the Vitrification of Hanford High Level Tank Waste, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Change Number Date Federal Facility Agreement and Consent Order **Change Control Form** Do not use blue ink. Type or print using black ink. **September 22, 2009** M-51-09-01 Originator **Phone** The U.S. Department of Energy, the State of Washington Department of Ecology, and the U.S. Environmental Protection Agency. Class of Change [X] I - Signatories [] II - Executive Manager [] III - Project Manager **Change Title** Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-051-00 for the Vitrification of Hanford High Level Tank Waste, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA. Description/Justification of Change This change form reflects the results of the 2007 - 2009 Hanford negotiations on milestones for Vitrification of Hanford High Level Tank Waste in the M-051-00 series and carries out modifications to the milestones in the HFFACO. Impact of Change The modifications in this document are conditioned upon approval of the following TPA change packages M-36-09-01, M-42-09-01, M-45-09-01, M-47-09-01, M-50-09-01, M-51-09-01, M-61-09-01, M-62-09-01, M-90-09-01, P-09-09-02 and I-09-01, and shall go into effect upon entry of the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS.

Disapproved

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Page 1 of 2

Approved_

Approved

Approved

The Hanford Federal Facility Agreement and Consent Order, as amended.

Date

Date

Date

Affected Documents

Approvals

DOE

EPA

Ecology

The following Major Milestone is hereby **deleted**, as shown by use of strikeout, from the Hanford Federal Facility Agreement and Consent Order.

M-051-00	COMPLETE VITRIFICATION OF HANFORD HIGH LEVEL TANK WASTE.	12/31/2028
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M-61-09-01

Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-061-00 for Pretreatment and Immobilization of Hanford Low Activity Waste, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Change Number Federal Facility Agreement and Consent Order Date **Change Control Form** Do not use blue ink. Type or print using black ink. M-61-09-01 **September 22, 2009** Originator Phone The U.S. Department of Energy, the State of Washington Department of Ecology, and the U.S. Environmental Protection Agency. Class of Change [X] I - Signatories [] II - Executive Manager [] III - Project Manager Change Title Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-061-00 for Pretreatment and Immobilization of Hanford Low Activity Waste, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA. Description/Justification of Change This change form reflects the results of the 2007 - 2009 Hanford negotiations on milestones for Pretreatment and Immobilization of Hanford Low Activity Waste in the M-061-00 series and carries out modifications to the milestones in the HFFACO. Impact of Change The modifications in this document are conditioned upon approval of the following TPA change packages M-36-09-01, M-42-09-01, M-45-09-01, M-47-09-01, M-50-09-01, M-51-09-01, M-61-09-01, M-62-09-01, M-90-09-01, P-09-09-02 and I-09-01, and shall go into effect upon entry of the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS. **Affected Documents** The Hanford Federal Facility Agreement and Consent Order, as amended.

Approved

Approved

Approved

Date

Date

Date

Disapproved

Disapproved

Disapproved

Page 1 of 2

Approvals

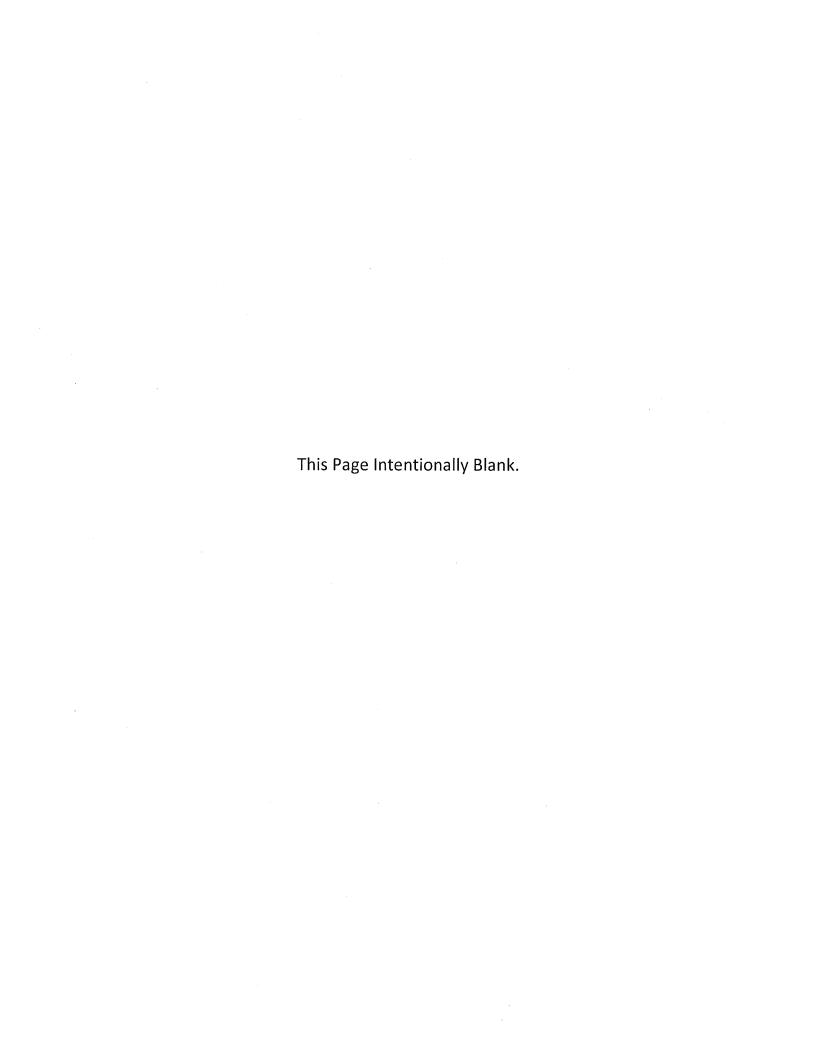
DOE

EPA

Ecology

The following Major Milestone is hereby **deleted**, as shown by use of strikeout, from the Hanford Federal Facility Agreement and Consent Order.

M-061-00	COMPLETE PRETREATMENT AND IMMOBILIZATION OF HANFORD	12/31/2028
	LOW ACTIVITY WASTE (LAW).	



M-62-09-01

Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-062-00 for Pretreatment Processing and Vitrification of Hanford High Level (HLW) and Low Activity (LAW) Tank Wastes, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Change Number

M-62-09-01

Federal Facility Agreement and Consent Order Change Control Form

Do not use blue ink. Type or print using black ink.

Date

September 24, 2009

			 _
Orig	ina	tor	

Phone

The U.S. Department of Energy, the	ne State of Washington	Department of Eco	ology, and the U.S.
Environmental Protection Agency.			

[X] I - Signatories

[] II - Executive Manager

[] III - Project Manager

Change Title

Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-062-00 for Pretreatment Processing and Vitrification of Hanford High Level (HLW) and Low Activity (LAW) Tank Wastes, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Description/Justification of Change

This change form reflects the results of the 2007 - 2009 Hanford negotiations on milestones for Pretreatment Processing and Vitrification of Hanford High Level (HLW) and Low Activity (LAW) Tank Wastes in the M-062-00 series and carries out modifications to the milestones in the HFFACO.

Impact of Change

The modifications in this document are conditioned upon approval of the following TPA change packages M-36-09-01, M-42-09-01, M-45-09-01, M-47-09-01, M-50-09-01, M-51-09-01, M-61-09-01, M-62-09-01, M-90-09-01, P-09-09-02 and I-09-01, and shall go into effect upon entry of the Consent Decree in *Washington v. DOE*, Case No. 08-5085-FVS.

Affected Documents

The <u>Hanford Federal Facility Agreement and Consent Order</u>, as amended.

Approvals				
DOE	Date	Approved	Disapproved	
EPA		Approved	Disapproved	Page 1 of 14
Ecology	Date	Approved	Disapproved	

The following Interim Milestones are hereby **added** to the Hanford Federal Facility Agreement and Consent Order.

All new milestones established in this change form are established with the State of Washington Department of Ecology as the Lead Regulatory Agency.

M-062-20	Close all 28 issues, as originally identified, in Comprehensive Review of the Hanford Waste Treatment Plant Flowsheet and Throughput Assessment Conducted by an Independent Team of External Experts, issued in March 2006. For purposes of this milestone M-062-20, "close" is defined as the Technology Steering Committee's approval signature of closeout documentation for each issue.	6/30/2010
M-062-21	On an annual basis, submit data, whose accuracy is certified in accordance with WAC 173-303-810(13), and which demonstrates on a rolling three year average, operation of WTP, and any supplemental treatment if needed, at a rate sufficient to accomplish treatment of all Hanford tank waste in accordance with the date required by milestone M-062-00, taking into account that treatment rates are expected to vary based upon a number of factors, including the character of the waste treated, or alternatively describe plans to increase the rate beyond that previously anticipated in order to achieve treatment of all Hanford tank waste by the M-062-00 milestone date.	2/28/2023 and annually thereafter
M-062-30	Without restricting the discretion reserved to DOE and Ecology under M-062-45 item #3 to make the supplemental treatment decision in accordance with M-062-45 item #3 under that milestone, DOE and Ecology shall complete negotiations establishing milestones for implementing near-term (2011-2016) actions, such as those identified in the 2008 External Technical Review of System Planning for Low-Activity Waste Treatment at Hanford report, for enhancing WTP tank waste treatment and advancing the evaluation of supplemental treatment options. Such actions may include, among other actions: enhancing WTP LAW melter production rates; installing a third melter in the WTP LAW Facility; cold and hot testing strategies for bulk vitrification; and evaluating and implementing sodium mitigation strategies.	Twelve (12) months after milestone M- 062-30 is adopted by the parties
M-062-31-T01	Complete Final Design and Submit a complete RCRA Part B Permit Modification request for Enhanced WTP and/or Supplemental Vitrification Treatment Facility based on the M-062-45 decision.	12 months after M-062-45 item #3 decision on supplemental treatment

M-062-32-T01 See * in M-062-45	Start construction of Supplemental Vitrification Treatment Facility and/or WTP Enhancements.	36 months after M-062-45 item #3 decision on supplemental treatment, provided that Ecology has issued a final permit modification at least twelve (12) months earlier
M-062-33-T01 See * in M-062-45	Complete construction of Supplemental Treatment Vitrification Facility and/or WTP Enhancements.	72 months after M-062-45 item #3 decision on supplemental treatment
M-062-34-T01 See * in M-062-45	Complete Hot Commissioning of Supplemental Treatment Vitrification Facility and/or WTP Enhancements.	92 months after M-062-45 item #3 decision on supplemental treatment
M-062-40	Submit a System Plan to Ecology describing the disposition of all tank waste managed by the Office of River Protection, including the retrieval of all tanks not addressed by the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS, and the completion of the treatment mission. The Plan will be updated and submitted to Ecology every three years to document any further optimization of retrieval and waste treatment capabilities to, in the case of SST retrievals, complete such retrievals as quickly as is technically feasible (but not later than the date established in milestone M-045-70), and, in the case of tank waste treatment, complete such treatment as quickly as is technically feasible (but not later than the date established in milestone M-062-00), both with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission. One year prior to the issuance of the System Plan, DOE and Ecology will each select the scenarios (including underlying common and scenario-specific assumptions) that will be analyzed in the System Plan, with DOE and Ecology each having the right to select a minimum of three scenarios each. The Plan will include the following elements: OVERALL MINIMUM REQUIREMENTS The Plan will present the following minimum information for each	Starting October 31, 2010, and every three years thereafter, Ecology and DOE will each have the right to select a minimum of three scenarios that will be analyzed in the System Plan. Beginning October 31, 2011, and every three years thereafter, issue the System Plan.

scenario evaluated:

- A system description for each system utilized in the planning
- Planning bases for each case
- A description of key issues, assumptions, and vulnerabilities for each scenario evaluated; a description of how such issues, assumptions and vulnerabilities are addressed in the evaluation.
- Sensitivities analysis of selected key assumptions
- Estimated schedule impacts of alternative cases relative to the baseline, including cost comparisons for a limited subset of scenarios that DOE and Ecology wish to analyze further.
- Identification of new equipment, technology, or actions needed for the scenario (e.g., new evaporators or DSTs; new retrieval technologies; waste treatment enhancements or mitigations, such as sodium, sulfate, aluminum and chrome mitigation measures).
- Identification of issues, techniques or technologies that need to be further evaluated or addressed in order to accelerate tank retrievals and tank waste treatment
- Impacts on closure activities for each scenario.

TANK WASTE TREATMENT

The Plan will evaluate scenarios and identify potential near and long-term actions to optimize tank waste treatment so that the treatment mission is completed as quickly as is technically feasible but not later than the date established in milestone M-062-00, with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.

The Plan will, at a minimum, describe how the tank waste treatment mission can:

- Pretreat 100% of the retrievable tank waste (at a rate sufficient to operate the HLW facility, LAW facility, and Supplemental Treatment system simultaneously at their estimated average production rates).
- Vitrify 100% of the separated high-level waste stream at estimated average production rates.
- Vitrify 100% of separated low-activity waste stream at estimated average production rates.

Appropriately manage secondary waste streams.

The Plan will take into account the results from testing of the Pretreatment Engineering Platform and other studies.

SUPPLEMENTAL TREATMENT

The Plan will also describe:

- How much total sodium will need to be treated.
- The needed capacity for supplemental treatment to have all the tank waste treated by a date that is as quickly as is technically feasible but not later than the date established in milestone M-062-00, with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.

The System Plan will outline specific options to treat all the LAW. Such options include:

- Build and operate a 2nd LAW Vitrification Facility.
- Build and operate a Bulk Vitrification Facility.

Not later than the System Plan Report due date of 10/31/2014, DOE will submit a one-time Hanford Tank Waste Supplemental Treatment Technologies Report, which will be required if a tank waste supplemental treatment technology is proposed, other than a 2nd LAW Vitrification Facility.

This report will:

- Describe additional treatment facilities and technologies, and cost which in combination with the WTP are needed to vitrify all of Hanford's tank waste by a date that is as quickly as is technically feasible but not later than the date established in milestone M-062-00, with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.
- Apply the same selection criteria to all options and include a 2nd LAW Vitrification Facility as an option.
- Include all the results from all waste form performance data (compared against the performance of borosilicate glass) for all the treatment technologies being considered.
- Describe the technologies being considered (including size,

throughput, sodium loading, quantity of waste to be processed, quantity of final waste forms, secondary waste quantity and nature, technical viability, and life cycle cost and schedule estimates).

• Include data from both cold and hot testing if bulk vitrification is to be retained as an option.

TANK WASTE RETRIEVAL

The Plan will evaluate scenarios and identify potential near and long-term actions to optimize tank waste retrieval so that the single-shell tank retrievals are completed as quickly as is technically feasible but not later than the date established in milestone M-045-70, with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.

The Plan will consider:

- SST integrity information, including the SST integrity assurance review provided under milestone M-045-91 and any further integrity assessments.
- Waste retrieval rate sufficient to operate all waste treatment facilities at their full capacities, considering optimized waste feed rates.
- The effect on waste retrieval rates of the waste retrieval technologies selected through the TWRWP process.
- Sequences for remaining SSTs and DSTs to be retrieved based on a risk prioritization strategy, waste treatment feed optimization as affected by blending, and Waste Management Waste Area Closure considerations.

The Plan will also take into account the results from previous waste retrievals and other waste treatment studies. This shall include:

- The retrieval methodologies that could be employed and estimated waste volumes to be generated for transfer to the DST or other safe storage.
- DST space evaluations for the waste retrieval sequence.
- Proposed improvements to reduce waste retrieval durations

CONTINGENCY PLANNING

The Plan will identify and consider possible contingency measures to address the following risks:

	Results from SST integrity evaluations.	
	 If retrievals take longer than originally anticipated and there is potential impact to the schedule for retrieving specified tanks under this agreement. 	
	If DST space is not sufficient or is not available to support continued retrievals on schedule.	
	If any portion of the WTP does not initiate cold commissioning on schedule.	
	If any portion of the WTP does not complete hot start on schedule.	
	 If operation of the WTP does not meet treatment rates that are adequate to complete retrievals under the schedule in this agreement. For example, the contingency measures will address estimated pretreatment facility throughput as affected by ultrafiltration capacity and oxidative leaching requirements. 	
	The contingency measures identified for consideration should include, but not be limited to, providing new, compliant tanks with sufficient capacity and in sufficient time to complete retrievals under this agreement, regardless of WTP operational deficiencies or retrieval conditions.	
M-062-45	Every six years, within six months of the issuance of the last	April 30, 2015,
	revision of the System Plan, the parties will negotiate the following:	and every six
	 Commencing as target milestones in 2015 and enforceable milestones in 2021 and each negotiation thereafter, tank waste retrieval sequencing and milestones, and milestones for installation of infrastructure to feed tank waste from the DST system to the tank waste treatment system, for the next eight years. 	years thereafter.
	 Contingency actions and milestones, if and as necessary, for providing new, compliant tanks with sufficient capacity and in sufficient time to complete retrievals under this agreement, regardless of WTP operational deficiencies or retrieval conditions. 	
	3. Supplemental treatment selection (a one time selection to be made not later than April 30, 2015) and milestones, which must be consistent with M-062-00 as established by M-062-45 item #5. A 2 nd LAW Vitrification Facility must be considered as one of the options. *Milestones M-062-31-T01 through M-062-34-T01 are initially set as target dates and will be established (as may be modified) as interim milestones when they are converted to interim milestones in accordance with applicable HFFACO procedures at the	

conclusion of this negotiation.

- 4. The date in milestone M-045-70 for completion of the tank waste retrievals as expeditiously as possible.
- 5. The date in milestone M-062-00 for completion of tank waste treatment as expeditiously as possible.
- 6. Milestones for the provision of IHLW canister storage capacity for the six year period of WTP operation for the operating period that begins in January 2022. Additional milestones for the provision of such canister capacity will be established as needed every six years thereafter for the storage of IHLW for the subsequent six year period of WTP operations.
- 7. Reevaluate milestones to establish facilities to manage secondary waste streams from the WTP by the date that the WTP achieves initial plant operations.

As used in paragraphs 4 and 5, above, the phrase 'as expeditiously as possible' means, in the case of SST retrievals, completing such retrievals as quickly as is technically feasible but not later than the date established in milestone M-045-70, and in the case of tank waste treatment, completing such treatment as quickly as is technically feasible but not later than the date established in milestone M-062-00, and in each case without excessive difficulty or expense within the context of such activities, and in consideration of any impact on the overall cleanup mission.

By the milestone due date, the parties will complete negotiations on the above matters. Although multiple scenarios may be considered in the course of the negotiations, and none may be considered wholly appropriate, the final decisions in items 1 through 7 above will be consistent with a single scenario, including any agreed-upon supplemental sensitivity analyses. The parties agree that the chosen scenario alone need not dictate matters in the negotiations and that other information may be considered as the parties deem appropriate.

In the event Ecology and DOE do not reach agreement for the matters in M-062-45 paragraphs 1, 2, 3, 6, and 7 the dispute between Ecology and DOE will be resolved pursuant to the HFFACO Article VIII.

The dispute resolution process in HFFACO, Article VIII, does not apply to the determinations in M-062-45 paragraphs 4 and 5. Rather, these disputes shall be governed by the Consent Decree in *Washington v. DOE, Case No.* 08-5085-FVS. No later than 12/31/2021, the United States and Ecology shall complete negotiations to establish a mechanism that will apply to resolve future disputes regarding the determinations in M-062-45

Page 9 of 14

	paragraphs 4 and 5. The United States and Ecology have reserved their rights regarding the mechanism that should apply to such future disputes, in the event that they cannot reach agreement.	
M-062-49		
	 Pretreat 100% of retrievable tank waste (i.e., 48,000 MT of sodium and 25,000 MT of solids). 	
	 Vitrify 100% of the separated high-level waste stream (estimated at 4.2 MTG/d, at the assumed operating efficiency). 	
	WTP LAW combined with supplemental treatment (bulk vitrification or second LAW) can vitrify 100% of separated low-level waste stream (estimated at 21 MTG/d, at the assumed operating efficiency, for WTP LAW).	

Specific Major and Interim Milestones are **modified** as shown by use of strikeout to indicate deleted text and shading to indicate added text.

M-062-00	COMPLETE PRETREATMENT PROCESSING AND VITRIFICATION OF HANFORD HIGH LEVEL (HLW) AND LOW ACTIVITY (LAW) TANK WASTES. COMPLIANCE WITH THE WORK SCHEDULES SET FORTH IN THIS M-62 MILESTONE SERIES IS DEFINED AS THE PERFORMANCE OF SUFFICIENT WORK TO ASSURE WITH REASONABLE CERTAINTY THAT DOE WILL ACCOMPLISH SERIES M-62 MAJOR AND INTERIM MILESTONE REQUIREMENTS. DOE INTERNAL WORK SCHEDULES (E.G., DOE APPROVED SCHEDULE BASELINES) AND ASSOCIATED WORK DIRECTIVES AND AUTHORIZATIONS FOR THIS MILESTONE SERIES SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THIS AGREEMENT. MODIFICATION OF DOE CONTRACTOR BASELINE(S) AND ISSUANCE OF ASSOCIATED DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS THAT ARE NOT CONSISTENT WITH AGREEMENT REQUIREMENTS SHALL NOT BE FINALIZED PRIOR TO APPROVAL OF AN AGREEMENT CHANGE REQUEST SUBMITTED PURSUANT TO AGREEMENT ACTION PLAN SECTION 12.0.	12/31/2028 12/31/2047 or earlier as established by M-062-45
M-062-00A	COMPLETE WTP PRETREATMENT PROCESSING AND VITRIFICATION OF HANFORD HLW AND LAW TANK WASTES. TANK WASTE PROCESSING SHALL COMPLETE THE WTP PRETREATMENT AND VITRIFICATION OF NO LESS THAN 10% OF HANFORD'S TANK WASTE BY MASS* AND 25% BY ACTIVITY. *[IN MEETING THIS REQUIREMENT DOE WILL PRETREAT AND VITRIFY NO LESS THAN 6000 METRIC TONS OF SODIUM (IN THE INSTANCE OF LAW FEED) AND 800 METRIC TONS OF WASTE OXIDES (IN THE INSTANCE OF HLW FEED)].	02/28/2018

		1
M-062-01S and	SUBMIT SEMI-ANNUAL PROJECT COMPLIANCE REPORT	07/31/2009
beyond		Semi-annually
	DOE'S MANAGER, OFFICE OF RIVER PROTECTION (ORP),	beginning July
	WILL SUBMIT A "PROJECT COMPLIANCE REPORT" TO	31, 2001
	ECOLOGY SEMI-ANNUALLY (A COPY OF THIS REPORT WILL	
	ALSO BE PROVIDED TO EPA'S REGION 10 OFFICE OF WASTE	
	AND CHEMICALS MANAGEMENT). THIS REPORT WILL	
	DOCUMENT DOE COMPLIANCE WITH AGREEMENT	
	REQUIREMENTS AND SHALL BE SEQUENTIALLY UPDATED BY	
	INFORMATION DOCUMENTING WORK PERFORMED AND	
	ISSUES ENCOUNTERED DURING THE PREVIOUS REPORT	
	PERIOD. THE ORP PROJECT COMPLIANCE REPORT WILL BE	
	PROVIDED AS PART OF THE PARTIES' INTER AGENCY	
	MANAGEMENT INTEGRATION TEAM (IAMIT) MEETINGS, AND	
	SHALL DOCUMENT THE STATUS OF PROGRESS TO DATE,	
	PROGRESS MADE DURING THE REPORT PERIOD, AND	
	ACTIVITIES EXPECTED IN THE FORSEEABLE FUTURE. THE	
	REPORT WILL INCLUDE, BUT IS NOT LIMITED TO: (1) A	
	CONCISE DESCRIPTION OF PROJECT ACCOMPLISHMENTS	
	AND ISSUES INCLUDING THOSE ENCOUNTERED DURING	
	THE PREVIOUS YEAR AND THOSE EXPECTED N THE NEAR	
	TERM, (2) WHEN APPLICABLE, A DESCRIPTION OF ACTIONS	
	INITIATED OR OTHERWISE TAKEN TO RECOVER ANY	
	AGREEMENT SCHEDULE SLIPPAGE, (3) A BUDGET AND COST	
	STATUS, (4) A STATEMENT DOCUMENTING WHETHER OR	
	NOT DOE AND DOE"S CONTRACTOR(S) REMAIN IN	7.7
	COMPLIANCE WITH AGREEMENT REQUIREMENTS, I.E.,	
	WHETHER OR NOT "DOE AND DOE'S CONTRACTOR(S) HAVE	
	COMPLETED SUFFICIENT WORK TO ALLOW ACHIEVEMENT	
	OF AGREEMENT REQUIREMENTS.", AND (5) CONCISE	
	DESCRIPTIONS OF ANY NONCOMPLIANCE. COPIES OF ALL	
	PERTINANT DOE WORK DIRECTIVES AND/OR	
	AUTHORIZATIONS ISSUED TO DOE'S CONTRACTOR(S) SHALL	
	BE PROVIDED ON REQUEST.	
M-062-01T and	SUBMIT SEMI-ANNUAL PROJECT COMPLIANCE REPORT	04/24/2040
beyond	SUBMIT SEMI-ANNUAL PROJECT COMPLIANCE REPORT	01/31/2010
beyond	DOE's MANAGER, OFFICE OF RIVER PROTECTION (ORP),	Semi-annually beginning July
	WILL SUBMIT A "PROJECT COMPLIANCE REPORT" TO	31, 2001
	ECOLOGY SEMI-ANNUALLY (A COPY OF THIS REPORT WILL	31, 2001
	ALSO BE PROVIDED TO EPA'S REGION 10 OFFICE OF WASTE	
	AND CHEMICALS MANAGEMENT). THIS REPORT WILL	
	DOCUMENT DOE COMPLIANCE WITH AGREEMENT	-
	REQUIREMENTS AND SHALL BE SEQUENTIALLY UPDATED BY	
	INFORMATION DOCUMENTING WORK PERFORMED AND	
	ISSUES ENCOUNTERED DURING THE PREVIOUS REPORT	
	PERIOD. THE ORP PROJECT COMPLIANCE REPORT WILL BE	
	PROVIDED AS PART OF THE PARTIES' INTER AGENCY	
	MANAGEMENT INTEGRATION TEAM (IAMIT) MEETINGS, AND	
	SHALL DOCUMENT THE STATUS OF PROGRESS TO DATE,	
	PROGRESS MADE DURING THE REPORT PERIOD, AND	

	ACTIVITIES EXPECTED IN THE FORSEEABLE FUTURE. THE REPORT WILL INCLUDE, BUT IS NOT LIMITED TO: (1) A CONCISE DESCRIPTION OF PROJECT ACCOMPLISHMENTS AND ISSUES INCLUDING THOSE ENCOUNTERED DURING THE PREVIOUS YEAR AND THOSE EXPECTED N THE NEAR TERM, (2) WHEN APPLICABLE, A DESCRIPTION OF ACTIONS INITIATED OR OTHERWISE TAKEN TO RECOVER ANY AGREEMENT SCHEDULE SLIPPAGE, (3) A BUDGET AND COST STATUS, (4) A STATEMENT DOCUMENTING WHETHER OR NOT DOE AND DOE'S CONTRACTOR(S) REMAIN IN COMPLIANCE WITH AGREEMENT REQUIREMENTS, I.E., WHETHER OR NOT "DOE AND DOE'S CONTRACTOR(S) HAVE COMPLETED SUFFICIENT WORK TO ALLOW ACHIEVEMENT OF AGREEMENT REQUIREMENTS.", AND (5) CONCISE DESCRIPTIONS OF ANY NONCOMPLIANCE. COPIES OF ALL PERTINANT DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS ISSUED TO DOE'S CONTRACTOR(S) SHALL BE PROVIDED ON REQUEST.	
M-062-07B	COMPLETE ASSEMBLY OF LOW ACTIVITY WASTE- VITRIFICATION FACILITY MELTER #1 SO THAT IT IS READY- FOR TRANSPORT AND INSTALLATION IN THE LAW- VITRIFICATION BUILDING (BNI BASELINE SCHEDULE- ACTIVITY 4DL321A200 AS PART OF DOE CONTRACT No. DE- AC27-01RV14136), AND COMPLETE SCHEDULE ACTIVITY ID- 4DH46102A2 — MOVE #1 MELTER INTO THE HIGH LEVEL- WASTE VITRIFICATION FACILITY.	12/31/2007
	This milestone represents 1) the assembly of LAW Melter #1 to the point it is ready for Refractory as part of BNI Baseline activities 3EL3212A00 Specifications and Analysis, 4DL321A000 LAW—Procure Material & Equipment for Melters and 4DL321A200 LAW—Assemble Melter #1 (Contract No. DE-AC27-01RV14136). In addition, activities 4DL121U100 LAW—Elev +3 South Melter FREP and 4DL131D000 LAW—Elev +28 Columns, Beams & Q-Decking at +48 shall be substantially completed, 2) moving the first HLW—melter into the HLW facility as defined in BNI baseline activities ID 4DH46102A2.	
	Completion of this milestone will be met when 1) LAW melter #1 will have been fully fabricated, assembled and ready for refractory-material to be installed. Assembly of the melter is scheduled to occur near the end of LAW construction when the facility is most-ready to have the assembled melter moved into the LAW cell where the refractory material will be installed. Meeting this milestone therefore represents significant accomplishment of the engineering, design and construction of the LAW facility; and 2) HLW melter #1 has been fully fabricated and moved into the HLW vitrification facility.	

M-062-08

SUBMITTAL OF HANFORD TANK WASTE SUPPLEMENTAL TREATMENT TECHNOLOGIES REPORT, DRAFT HANFORD TANK WASTE TREATMENT BASELINE, AND DRAFT NEGOTIATIONS AGREEMENT IN PRINCIPLE (AIP).

06/30/2006

DOE WILL SUBMIT A SUPPLEMENTAL TREATMENT TECHNOLOGIES REPORT THAT DESCRIBES THE TECHNICAL. FINANCIAL, AND CONTRACTUAL ALTERNATIVES WHICH IN COMBINATION WITH THE WTP AND ANY REQUIRED-ADDITIONAL LAW VITRIFICATION FACILITIES. ARE NEEDED TO TREAT ALL OF HANFORD'S TANK WASTES. THE REPORT WILL IDENTIFY AND DESCRIBE VIABLE PATH(S) FORWARD TO COMPLETE TREATMENT OF ALL TANK WASTES BY 12/31/2028. THE REPORT SHALL APPLY THE SAME SELECTION CRITERIA TO ALL OPTIONS AND INCLUDE THE 2ND-LAW VITRIFICATION FACILITY AS AN OPTION. THE REPORT WILL INCLUDE: THE RESULTS OF ALL WASTE FORM PERFORMANCE DATA (COMPARED AGAINST THE PERFORMANCE OF BOROSILICATE GLASS) FOR ALL THE TREATMENT TECHNOLOGIES BEING CONSIDERED: PERFORMANCE DATA WILL BE ADEQUATE TO MAKE DECISIONS AS TO THE ACCEPTABLITY OF ANY PROPOSED WASTE FORM FOR THE WASTE BEING CONSIDERED, AND DESCRIPTION OF THE CONSIDERED TREATMENT. TECHNOLOGIES (INCLUDING SIZE, THROUGHPUT. TECHNICAL VIABILITY, AND LIFE CYCLE COST ESTIMATES)

THIS REPORT WILL ALSO INCLUDE A DISCUSSION OF WASTE TREATMENT PLANT THROUGHPUT COMMITMENTS AND THE REALISTIC POTENTIAL FOR ENHANCING THE THROUGHPUT OF CURRENTLY PLANNED MELTERS, PROPOSED ADDITIONAL MELTERS AND POTENTIAL SECOND GENERATION MELTERS INSTALLED AT FIRST MELTER CHANGE OUT.

THE DRAFT BASELINE WILL CONTAIN DOE'S PROPOSED APPROACH FOR TREATING ALL HANFORD TANK WASTES-(HLW, LAW, AND TRU) BY 12/31/2028 INCLUDING LIFE CYCLE-COST ESTIMATES THAT INDICATE PROJECTED FUNDING-REQUIREMENTS THROUGH COMPLETION OF THE RIVER-PROTECTION PROJECT MISSION, A SCHEDULE FOR-CONSTRUCTION AND OPERATION OF PROPOSED NEW-FACILITIES AND/OR ENHANCEMENTS TO THE WTP, AND-PROJECTED THROUGHPUT FOR EACH FACILITY.

THE REPORT AND BASELINE WILL BE ACCOMPANIED BY A DRAFT NEGOTIATIONS AGREEMENT IN PRINCIPLE (AIP) AND DRAFT AGREEMENT CHANGE REQUEST CONTAINING MILESTONES AND ASSOCIATED AGREEMENT REQUIREMENTS SUFFICIENT TO EFFECTIVELY DRIVE ALL REQUIRED WORK, INCLUDING BUT NOT LIMITED TO: 1) THE ESTABLISHMENT OF REQUIREMENTS REGARDING ANY

	NECESSARY WTP MODIFICATION(S), 2) THE ESTABLISHMENT OF REQUIREMENTS SCHEDULING THE ACQUISITION AND OPERATION OF ANY APPROVED TREATMENT TECHNOLOGY SYSTEMS, 3) THE ESTABLISHMENT OF PRODUCTION-METRICS FOR TREATMENT COMPLEX (WTP PLUS ANY SUPPLEMENTAL TREATMENT SYSTEM OR SECOND LAW-VITRIFICATION FACILITY) CONSISTENT WITH COMPLETION OF TREATMENT BY 12/31/2028, 4) THE ESTABLISHMENT OF REQUIREMENTS SCHEDULING ACQUISITION AND OPERATION OF FEED DELIVERY SYSTEMS FOR ANY APPROVED SUPPLEMENTAL TECHNOLOGY (M-47-MILESTONES). THE AIP WILL BE FINALIZED WITHIN 30 DAYS OF SUBMITTAL AND PROVIDE THAT NEGOTIATIONS WILL BE-COMPLETED WITHIN ONE HUNDRED AND EIGHTY (180) DAYS OF AIP FINALIZATION, AND WILL PROVIDE THAT, IN THE-EVENT THE PARTIES DO NOT REACH AGREEMENT WITHIN THIS TIMEFRAME, THE NEGOTIATIONS WILL BE RESOLVED AS A RESOLUTION OF A DISPUTE VIA FINAL DETERMINATION OF THE DIRECTOR OF ECOLOGY PURSUANT TO HEFACO-ARTICLE VIII. UNLESS OTHERWISE AGREED BY THE-PARTIES, THIS FINAL DETERMINATION WILL BE ISSUED WITHIN SEVEN MONTHS OF AIP FINALIZATION.	
M-062-09	START COLD COMMISSIONING WASTE TREATMENT PLANT. DOE WILL START COLD COMMISSIONING OF ITS TANK- WASTE TREATMENT PLANT. START OF COLD- COMMISSIONING IS DEFINED AS INTRODUCTION OF FIRST- FEED SIMULANT INTO A PROCESS BUILDING.	02/28/2009
M-062-10	COMPLETE HOT COMMISSIONING WASTE TREATMENT PLANT DOE WILL ACHIEVE SUSTAINED THROUGHPUT OF PRETREATMENT, LOW-ACTIVITY WASTE VITRIFICATION AND HIGH-LEVEL WASTE VITRIFICATION PROCESSESS, AND DEMONSTRATE WTP TREATMENT COMPLEX AVAILABILITY TO COMPLETE TREATMENT OF NO LESS THAN 10% OF THE TANK WASTE BY MASS AND 25% OF THE TANK WASTE BY ACTIVITY BY DECEMBER 2018.	01/31/2011
M-062-11	SUBMIT A FINAL HANFORD TANK WASTE TREATMENT BASELINE. FOLLOWING THE COMPLETION OF NEGOTIATIONS REQUIRED IN M-62-08, DOE WILL MODIFY ITS DRAFT BASELINE AS REQUIRED AND SUBMIT ITS REVISED, AGREED-TO, BASELINE FOR TREATING ALL HANFORD TANK WASTE (HLW, LAW, AND TRU) BY 12/31/2028.	06/30/2007



Tri-Party Agreement Change Form

M-90-09-01

Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-090-00 for Acquisition of Facilities for Storage of Hanford Site IHLW and ILAW and Disposal of ILAW, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

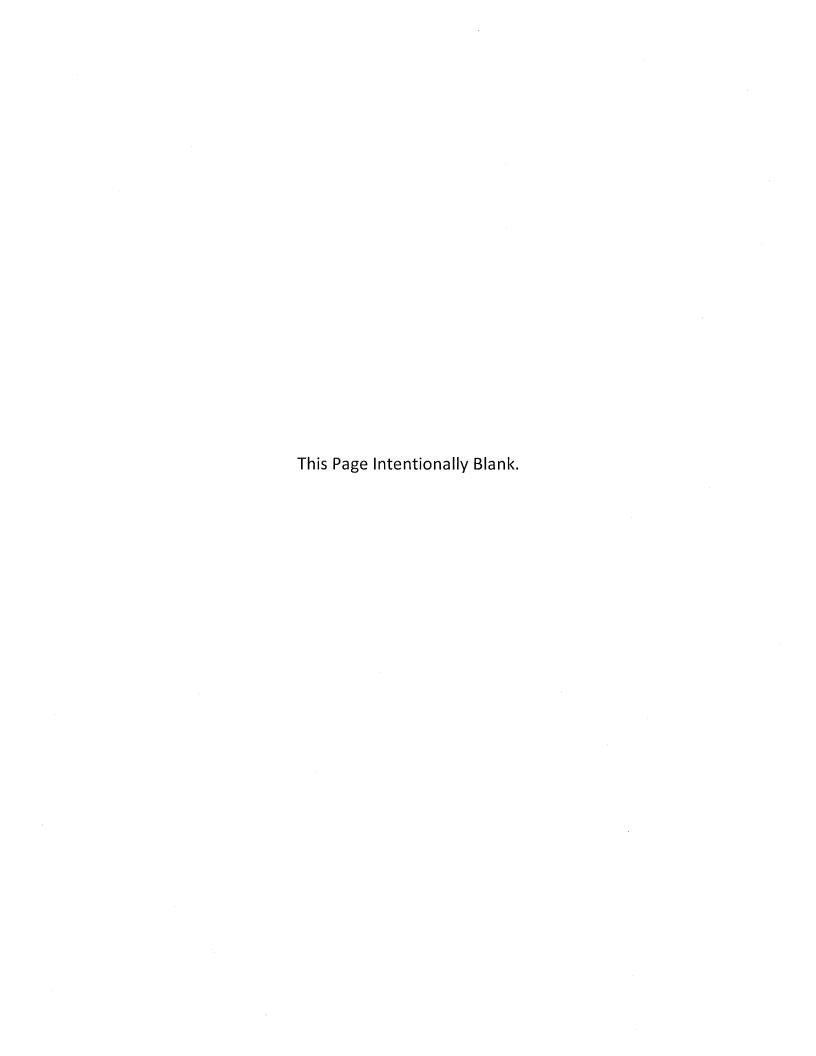
Change Number Federal Facility Agreement and Consent Order Date **Change Control Form** Do not use blue ink. Type or print using black ink. September 24, 2009 M-90-09-01 Originator Phone The U.S. Department of Energy, the State of Washington Department of Ecology, and the U.S. Environmental Protection Agency. Class of Change [X] I - Signatories [] II - Executive Manager [] III - Project Manager **Change Title** Hanford Federal Facility Agreement and Consent Order Milestone Modifications to M-090-00 for Acquisition of Facilities for Storage of Hanford Site IHLW and ILAW and Disposal of ILAW, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA. Description/Justification of Change This change form reflects the results of the 2007 - 2009 Hanford negotiations on milestones for Acquisition of Facilities for Storage of Hanford Site IHLW and ILAW and Disposal of ILAW in the M-090-00 series and carries out modifications to the milestones in the HFFACO. Impact of Change

The modifications in this document are conditioned upon approval of the following TPA change packages M-36-09-01, M-42-09-01, M-45-09-01, M-47-09-01, M-50-09-01, M-51-09-01, M-61-09-01, M-62-09-01, M-90-09-01, P-09-09-02 and I-09-01, and shall go into effect upon entry of the Consent Decree in *Washington v. DOE*, Case No. 08-5085-FVS.

Affected Documents					
The Hanford Federal Facility Agreement and Consent Order, as amended.					
Approvals		1000 Mily 2 V Mily 100 Mily 2 V Mily 2			
DOE		ApprovedDisapproved	Dage 1 of 0		
EPA	 Date	ApprovedDisapproved	Page 1 of 2		
Ecology	 Date	ApprovedDisapproved			

The following Tri-Party Agreement Major and Interim Milestones are hereby **modified** as indicated by strikeout to indicate text to be deleted and shading to indicate text to be added.

M-090-00	COMPLETE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES AS NECESSARY FOR STORAGE OF THE FIRST TWO YEARS OF HANFORD SITE IHLW FROM WTP OPERATIONS AND ILAW, AND DISPOSAL OF ILAW. COMPLIANCE WITH THE WORK SCHEDULES SET FORTH IN THIS M-90 SERIES IS DEFINED AS THE PERFORMANCE OF SUFFICIENT WORK TO ASSURE WITH REASONABLE CERTAINTY THAT DOE WILL ACCOMPLISH SERIES M-90 MAJOR AND INTERIM MILESTONE REQUIREMENTS. DOE INTERNAL WORK SCHEDULES (E.G., DOE APPROVED SCHEDULE BASELINES) AND ASSOCIATED WORK DIRECTIVES AND AUTHORIZATIONS SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THIS AGREEMENT. MODIFICATION OF DOE CONTRACTOR BASELINE(S) AND ISSUANCE OF ASSOCIATED DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS THAT ARE NOT CONSISTENT WITH AGREEMENT REQUIREMENTS SHALL NOT BE FINALIZED PRIOR TO APPROVAL OF AN AGREEMENT CHANGE REQUEST SUBMITTED PURSUANT TO AGREEMENT ACTION PLAN SECTION 12.0.	To Be Established 6 Months After Approval of Project Management Plan The date that the WTP achieves hot start
M-090-11	COMPLETE THE NEGOTIATION OF NO MORE THAN TWO COMPLETE CANISTER STORAGE FACILITY CONSTRUCTION INTERIM MILESTONES.	08/31/2010 12/31/2012
	COMPLETION OF THIS MILESTONE REQUIRES THE COMPLETION OF ALL CONSTRUCTION, INTERNAL/EXTERNAL FACILITY(S) MODIFICATIONS AND STARTUP ACTIVITIES NECESSARY FOR CANISTER STORAGE FACILITY RECEIPT OF ALL HANFORD SITE HIGH LEVEL WASTE CANISTERS FROM TANK WASTE TREATMENT PLANT RESULTING FROM COMPLIANCE WITH 62-00A. FOR PURPOSES OF THIESE INTERIM MILESTONES IHLW CANISTER STORAGE IS DEFINED AS THE CAPABILITY FOR STORAGE OF AT LEAST 600 THE FIRST TWO YEARS OF HANFORD SITE IHLW CANISTERS FROM WTP OPERATIONS. INTERIM MILESTONES AND ASSOCIATED TARGET DATES ESTABLISHING WORK SCHEDULES FOR	
	MILESTONE M-62-08. FOR PERMITTING PURPOSES DETAIL DESIGNS OF CRITICAL SYSTEMS INCLUDES THE CANISTER STORAGE TUBE SYSTEM.	



Tri-Party Agreement Change Form

P-09-09-02

Hanford Federal Facility Agreement and Consent Order Modifications to Action Plan Section 9, Primary Document List, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Change Number	Federal Facility Agreemen Change Contr		Order	Date	
P-09-09-02	Do not use blue ink. Type or print using black ink.		September 22, 2009		
Originator			Pl	none	
The U.S. Department Environmental Protect	of Energy, the State of Washi ion Agency.	ngton Depart	ment of Eco	ology, and the U.S.	
Class of Change					
[] I - Signatories	[X] II - Executive Manager		[] III - Proje	ct Manager	
Change Title					
Primary Document Lis	ty Agreement and Consent O t, resulting from the 2007 - 20 ty Agreement and Consent O	09 Hanford n	negotiations	on changes to the	
Description/Justification	of Change				
•	ects the results of the 2007 - 2 on 9, Primary Document List.	009 Hanford	negotiation	s on modifications to	
Impact of Change	·····		***************************************		
The modifications in this document are conditioned upon approval of the following TPA change packages M-36-09-01, M-42-09-01, M-45-09-01, M-47-09-01, M-50-09-01, M-51-09-01, M-61-09-01, M-62-09-01, M-90-09-01, P-09-09-02 and I-09-01, and shall go into effect upon entry of the Consent Decree in <i>Washington v. DOE</i> , Case No. 08-5085-FVS.					
Affected Documents					
The Hanford Federal Facility Agreement and Consent Order, as amended.					
Approvals					
		Approved	Disapproved		
DOE	Date	, /bhi o a e a		Page 1 of 2	
EPA	Date	Approved	Disapproved		

_Disapproved

Approved_

Date

Ecology

Description/Justification of Change (continued)

The following documents are hereby **added**, as shown by the use of shading, to the Hanford Federal Facility Agreement and Consent Order Action Plan list of Primary Document in Table 9-1.

Table 9-1. Primary Documents.

Remedial investigation/feasibility study (RI/FS) work plan

Remedial investigation (RI) Phase II report

Feasibility study (FS) Phases I and II report

FS Phase III report

Preclosure Work Plan

Proposed plan

Remedial design (RD) report

Remedial action (RA) work plan

Remedial design and remedial action (RD/RA) work plan

Operation and maintenance (O&M) plan

Closure plan

Part B permit application (for operation and/or postclosure)

RCRA facility assessment (RFA) report

RCRA facility investigation/corrective measures study (RFI/CMS) work plan

RCRA facility investigation (RFI) report (final)

Corrective measures study (CMS) report (preliminary and final)

Corrective measures implementation (CMI) work plan

Corrective measures design (CMD) report

Interim response action (IRA) proposal

Interim measure (IM) proposal

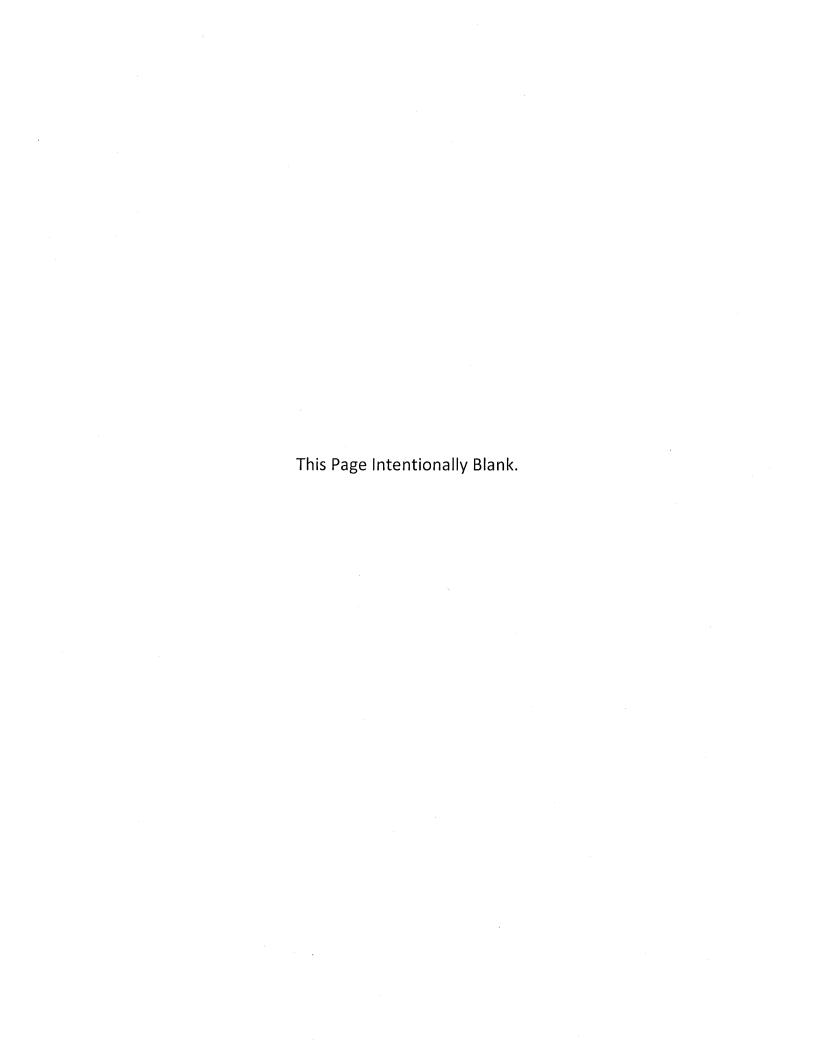
Waste/Material Stream Project Management (Work) Plans (see Action Plan Section 11.5).

Catch tank assumed leak response plan

Report on all catch tanks and associated pipelines identified in the SST System Part A or that have otherwise been known to be used for SST tank system operations

Other work plans (as specified in Section 11.6)

Other documents as specified elsewhere in the Agreement



Tri-Party Agreement Change Form

I-09-01

Hanford Federal Facility Agreement and Consent Order Modifications to Action Plan Appendix I, resulting from the 2007 - 2009 Hanford negotiations on changes to the Hanford Federal Facility Agreement and Consent Order (HFFACO), also known as the Tri-Party Agreement or TPA.

Change Number	Federal Facility Agreement and Consent Order	Date		
	Change Control Form Do not use blue ink. Type or print using black ink.			
I-09-01	Do not use blue link. Type of print using black link.	September 22, 2009		
Originator	Pi	none		
The U.S. Department of Environmental Protect	of Energy, the State of Washington Department of Eco ion Agency.	ology, and the U.S.		
Class of Change		-		
[] I - Signatories	[X] II - Executive Manager [] III - Projection	ct Manager		
Change Title				
resulting from the 2007	ty Agreement and Consent Order Modifications to Acti 7 - 2009 Hanford negotiations on changes to the Hanfe ent Order (HFFACO), also known as the Tri-Party Agre	ord Federal Facility		
Description/Justification	of Change			
-	cts the results of the 2007 - 2009 Hanford negotiation Action Plan Appendix I in the HFFACO.	s and carries out		
Impact of Change				
packages M-36-09-01, M-62-09-01, M-90-09-0	is document are conditioned upon approval of the follows. M-42-09-01, M-45-09-01, M-47-09-01, M-50-09-01, Note of the follows. P-09-09-02 and I-09-01, and shall go into effect up v. DOE, Case No. 08-5085-FVS.	и-51-09-01, М-61-09-01,		
Affected Documents				
The Hanford Federal Facility Agreement and Consent Order, as amended.				
Approvals				
DOE	ApprovedDisapproved Date			
	Approved Disapproved	Page 1 of 2		
EPA	Date ApprovedDisapproved			
Ecology	ApprovedDisapproved			

Description/Justification of Change (continued)

The following text is hereby **added**, as shown by the use of **shading**, to the Hanford Federal Facility Agreement and Consent Order Action Plan Appendix I, Section 2.1.

APPENDIX I - SINGLE-SHELL TANK SYSTEM WASTE RETRIEVAL AND CLOSURE PROCESS

2.1 TANK WASTE RETRIEVAL

Waste retrieval is a major activity in the process of SST system closure. Criteria applicable to SST waste retrieval activities, as stated in Milestone M-45-00, are: "..retrieval of as much waste as technically possible, with tank residues not to exceed 360 cubic feet (cu. ft.) in each of the 100-series tanks, 30 cu. ft. in each of the 200-series tanks, or the limit of waste retrieval technology capability, whichever is less." If these waste retrieval criteria are not met for a specific tank using the selected technology(s), DOE may use the procedure delineated in Agreement Appendix H to request Ecology approval of an exception to the waste retrieval criteria for that specific tank. This section shall not apply to the 19 SSTs covered by the Consent Decree in *Washington v. DOE*, Case No. 08-5085-FVS, except as set forth in Appendix C, Part 3, A.1 and A.2 of such decree.

The Parties' waste retrieval and closure process is described in the following sections:

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Background Information:

Settlement Coordination Letter

U.S. Department of Justice



U.S. Department of Justice

Environment and Natural Resources Division

David J. Kaplan, Senior Attorney Environmental Defense Section By U.S. Mail: P.O. Box 23986 Washington, DC 20026-3986 By Overnight Express: Rm.8112
Dep't of Justice, Patrick Henry Bldg,
601 D Street, N.W.
Washington, D.C. 20004

Telephone (202) 514-0997 Facsimile (202) 514-8865

August 10, 2009

Mary Sue Wilson Sr. Assistant Attorney General Andrew Fitz Assistant Attorney General Attorney General of Washington Ecology Division PO Box 40117 Olympia, WA 98504-0117

Re: State of Washington v. DOE, No. 08-5085-FVS (E.D. Wa.)

Dear Ms. Wilson and Mr. Fitz:

I write to confirm the agreement between the State of Washington (State) and the United States Department of Energy and Secretary of Energy Chu (collectively DOE), hereinafter the Parties, as embodied in this letter.

1. Consent Decree Entry

A proposed Consent Decree is attached to this letter. The Parties will lodge the proposed Consent Decree with the Court in this case by August 11, 2009, and submit the proposed Consent Decree for a 45-day public comment period, to run from September 24, 2009 to November 9, 2009. Once lodged, either Party may provide copies of the proposed Consent Decree to any member of the public in advance of the formal comment period. Each Party will share with the other any written comments received during the formal comment period. Signature and entry of the Consent Decree will be subject to public comment to the Parties.

Upon the satisfactory completion of this notice and comment process and publication of the Draft Environmental Impact Statement described below, the Parties will sign the proposed Consent Decree and modifications to the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement (TPA)) described below, and jointly request that the Court enter the proposed Consent Decree. Before making such a request, DOE will have published its Draft Tank Closure and Waste Management Environmental Impact Statement (Draft EIS) that includes, as an element of DOE's preferred alternative, limitations and exemptions on off-site

waste importation at Hanford until at least the Waste Treatment Plant is operational, as those limitations and exemptions are defined in DOE's January 6, 2006 Settlement Agreement with the State (as amended on June 5, 2008) regarding <u>Washington v. Bodman</u>, No. 2:03-cv-05018-AAM.

Upon completion of the public notice and comment process, and absent either party having a notice-and-comment based reason not to execute and request the Court to enter the proposed Consent Decree, the State will advise DOE in writing that it is ready to seek entry of the Consent Decree by the Court, using the following language:

By this letter, the State of Washington notifies DOE that applicable notice and comment processes have been completed and all conditions necessary for the State and DOE to jointly move the Court to enter the proposed Consent Decree in this case, as well as all conditions necessary for the State to execute certain proposed modifications to the Hanford Federal Facility Agreement and Consent Order, have been met, subject to the following sentence. The State will join DOE in moving for such entry, and execute such modifications, once DOE publishes its Draft Tank Closure and Waste Management Environmental Impact Statement that includes the element of the preferred alternative as described in the agreement between the Parties in the letter dated August 10, 2009.

If, after receipt of the above written statement by the State, DOE does not within a reasonable period complete and publish its Draft EIS that includes the element of the preferred alternative as described above, then the State may, after 30-day advance notice to DOE, withdraw its consent from the proposed Consent Decree. In the event of such withdrawal, the State will be free to resume litigation in this case. Further, if the modifications to the TPA described below are not executed, either party may withdraw its consent to the proposed Consent Decree.

Once the Consent Decree is lodged, the Parties will promptly file a joint motion to hold the case in abeyance, pending the execution and entry of the Consent Decree. In the event that the Court does not enter the Consent Decree or it is withdrawn from consideration for entry by the Court, the Parties will request that the Court adopt a modified schedule that extends each of the dates in the prior schedule by the period of time from the lodging of the Decree until either the Court does not enter the Decree or it is withdrawn from consideration for entry by the Court. Unless and until either the Court does not enter the Decree or the Decree is withdrawn from consideration for entry by the Court, the Parties will conduct their affairs in a manner consistent with the milestones in the proposed Consent Decree.

2. TPA Modifications

DOE will prepare proposed change packages based on the proposed modifications to the TPA contained in "Enclosure B," "Enclosure C," and "Enclosure E" attached to this letter. Contemporaneous with lodging of the Consent Decree in this case, the Parties will submit the proposed change packages for a 45-day public comment period, to run from September 24, 2009 to November 9, 2009. Final approval of the change packages by the three parties to the TPA (DOE, the United States Environmental Protection Agency, and the Washington Department of

Ecology) will be subject to public comment. Following conclusion of the public comment period, the three parties to the TPA will consider any comments received and make any appropriate changes. A response to comments document will be prepared and issued.

Upon the completion of these processes, and absent a notice-and-comment based reason not to execute the change packages, the Parties will simultaneously execute the proposed change packages and the proposed Consent Decree. The modifications become effective once the proposed Consent Decree is entered by the Court. In the event that the Court does not enter the proposed Consent Decree or it is withdrawn from consideration for entry by the Court, either DOE, EPA, or the State may withdraw their consent to the TPA modifications.

Prior to the TPA modifications taking effect, the Parties will conduct their affairs in a manner consistent with the requirements of the change packages, until those change packages either take effect or the proposed Consent Decree is withdrawn from consideration for entry by the Court.

We look forward to receiving written confirmation of the State's acceptance of the provisions of this letter.

Sincerely,

JOHN C. CRUDEN

Acting Assistant Attorney General Environment & Nat. Resources Div.

DAVID J. KAPLAN

United States Department of Justice

Environmental Defense Section

P.O. Box 23986

Washington D.C. 20026-3986

Tel: (202) 514-0997

Attachments:

Proposed Consent Decree, including attachments
Proposed HFFACO modifications ("Enclosure B"; "Enclosure C"; "Enclosure E")

Background Information:

Settlement Coordination Letter

State of Washington



Rob McKenna ATTORNEY GENERAL OF WASHINGTON

Ecology Division 2425 Bristol Court SW 2nd Floor • Olympia WA 98502 PO Box 40117 • Olympia WA 98504-0117 • (360) 586-6770

August 10, 2009

Mr. David J. Kaplan United States Department of Justice Environment and Natural Resources Division P.O. Box 23986 Washington, DC 20026-3986

RE: Washington v. Chu

USDC, Eastern District No. CV-08-5085-FVS
Response to Settlement Coordination Letter Dated August 10, 2009

Subject to FRE 408

Dear Mr. Kaplan:

This letter is to confirm that the State of Washington (State) has reviewed your letter of August 10, 2009, including all attachments thereto, which outlines provisions of an agreement between the State and the United States Department of Energy and Secretary of Energy Chu. By this letter, the State confirms acceptance of the provisions of the agreement contained in the referenced August 10, 2009 letter.

ANDREW A. FITZ

(360) 586-6752

Assistant Attorney General

Sincerely,

MARY SUE WILSON

manfue

Sr. Assistant Attorney General

(360) 586-6743

MSW:AAF:dmm

ce: Bruce Diamond

Jay Manning Jane Hedges

Background Information:

Settlement Enclosures B, C and E

Project	Description	Status	Date
	The following TPA changes shall go into effect upon entry of the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS		
WTP-1 ¹	Complete pretreatment processing and vitrification of Hanford High Level (HLW) and Low Activity (LAW) Tank Wastes.	Enforceable	12/31/2047 or earlier as established by [SP-2]
	Compliance with the work schedules set forth in this milestone Series is defined as the performance of sufficient work to assure with reasonable certainty that DOE will accomplish Series major and interim milestone requirements.		
	DOE internal work schedules (e.g., DOE approved schedule baselines) and associated work directives and authorizations for this milestone series shall be consistent with the requirements of this Agreement. Modification of DOE contractor baseline(s) and issuance of associated DOE work directives and/or authorizations that are not consistent with Agreement requirements shall not be finalized prior to approval of an Agreement change request submitted pursuant to Agreement Action Plan Section 12.0.		
WTP-2	Close all 28 issues, as originally identified, in Comprehensive Review of the Hanford Waste Treatment Plant Flowsheet and Throughput Assessment Conducted by an Independent Team of External Experts, issued in March 2006.	Enforceable	12/31/2009
	For purposes of Project [WTP-2], "close" is defined as the Technology Steering Committee's approval signature of closeout documentation for each issue.		
WTP-3	On an annual basis, submit data, whose accuracy is certified in accordance with WAC 173-303-810(13), and which demonstrates on a rolling three year average, operation of WTP,	Enforceable	2/28/2023

Note to Parties: The milestones in this document are conditioned upon deletion or modification of current HFFACO milestones M-47, M-50, M-51, M-61, and M-62 and revision of the M-90 milestones as these will be addressed by the proposed consent decree or these Enclosure B HFFACO milestones.

Project	Description	Status	Date
	and any supplemental treatment if needed, at a rate sufficient to accomplish treatment of all Hanford tank waste in accordance with the date required by milestone [WTP-1], taking into account that treatment rates are expected to vary based upon a number of factors, including the character of the waste treated, or alternatively describe plans to increase the rate beyond that previously anticipated in order to achieve treatment of all Hanford tank waste by the [WTP-1] milestone date.		

ST-1 Without restricting the discretion reserved to DOE and Ecology under [SP-2(3)] to make the supplemental treatment decision in accordance with [SP-2(3)] under that milestone, DOE and Ecology shall complete negotiations establishing milestones for implementing near-term (2011-2016) actions, such as those identified in the 2008 External Technical Review of System Planning for Low-Activity Waste Treatment at Hanford report, for enhancing WTP tank waste treatment and advancing the evaluation of supplemental treatment options. Such actions may include, among other actions: enhancing WTP LAW melter production rates; installing a third melter in the WTP LAW Facility; cold and hot testing strategies for bulk virification; and evaluating and implementing sodium mitigation strategies. ST-2 Complete Final Design and Submit acomplete RCRA Part B Permit Modification request for Enhanced WTP and/or Supplemental Vitrification Treatment Facility based on the [SP-2] decision. ST-3 Start construction of Supplemental Vitrification Treatment Facility and/or WTP Enhancements. Target See in [SP-2] (3)] decision on supplemental Vitrification Facility and/or WTP Enhancements. Target See in [SP-2] (3)] decision on supplemental treatment, provided that Ecology has issued a final permit modification at least twelve (12) months earlier Target See in [SP-2] (3)] decision on supplemental treatment, provided that Ecology has issued a final permit modification at least twelve (12) months earlier Target See in [SP-2] (3)] decision on supplemental treatment, provided that Ecology has issued a final permit modification at least twelve (12) months earlier Target See in [SP-2] (3)] decision on supplemental treatment, provided that Ecology has issued a final permit modification at least twelve (12) months earlier Target See in [SP-2] (3)] decision on supplemental treatment Target See in [SP-2] (3)] decision on supplemental (3)] decision on supplemental (3)] decision on supplemental (3)] decision o	ļ		·		
acomplete RCRA Part B Permit Modification request for Enhanced WTP and/or Supplemental Vitrification Treatment Facility based on the [SP-2] decision. ST-3 Start construction of Supplemental Vitrification Treatment Facility and/or WTP Enhancements. Target See * in [SP-2] (3)] decision on supplemental Vitrification Treatment Facility and/or WTP Enhancements. Target See * in [SP-2] (3)] decision on supplemental treatment, provided that Ecology has issued a final permit modification at least twelve (12) months earlier ST-4 Complete construction of Supplemental Treatment Vitrification Facility and/or WTP See * in after [SP- 2(3)] decision on supplemental freatment Target See * in after [SP- 2(3)] decision on supplemental freatment Target See * in after [SP- 2(3)] decision on supplemental freatment Treatment Treatment Target See * in after [SP- 2(3)] decision on supplemental freatment Treatment Target See * in after [SP- 2(3)] decision on supplemental freatment Treatment Treatment Target See * in after [SP- 2(3)] decision on supplemental freatment Treatment Treatment Target See * in after [SP- Target See * in		ST-1	to DOE and Ecology under [SP-2(3)] to make the supplemental treatment decision in accordance with [SP-2(3)] under that milestone, DOE and Ecology shall complete negotiations establishing milestones for implementing near-term (2011-2016) actions, such as those identified in the 2008 External Technical Review of System Planning for Low-Activity Waste Treatment at Hanford report, for enhancing WTP tank waste treatment and advancing the evaluation of supplemental treatment options. Such actions may include, among other actions: enhancing WTP LAW melter production rates; installing a third melter in the WTP LAW Facility; cold and hot testing strategies for bulk vitrification; and evaluating and implementing sodium	Enforceable	months after milestone [ST-1] is adopted by
Vitrification Treatment Facility and/or WTP Enhancements. See * in [SP-2] (3)] decision on supplemental treatment, provided that Ecology has issued a final permit modification at least twelve (12) months earlier ST-4 Complete construction of Supplemental Treatment Vitrification Facility and/or WTP Treatment Vitrification Facility and/or WTP See * in after [SP-2] (3)] decision on supplemental treatment, provided that Ecology has issued a final permit modification at least twelve (12) months earlier 72 months after [SP-2]		ST-2	acomplete RCRA Part B Permit Modification request for Enhanced WTP and/or Supplemental Vitrification Treatment Facility based on the [SP-2]	Target	after [SP- 2(3)] decision on supple- mental
Treatment Vitrification Facility and/or WTP See * in after ISP-			Vitrification Treatment Facility and/or WTP Enhancements.	See * in [SP-2]	after [SP-2 (3)] decision on supple- mental treatment, provided that Ecology has issued a final permit modification at least twelve (12) months earlier
			Complete construction of Supplemental Treatment Vitrification Facility and/or WTP	See * in	

	Enhancements.		2(3)] decision on supple- mental treatment
ST-5	Complete Hot Commissioning of Supplemental Treatment Vitrification Facility and/or WTP Enhancements.	Target See * in [SP-2]	92 months after [SP- 2(3)] decision on supple- mental treatment

Systems Plan (SP-1)

Submit a System Plan to Ecology describing the disposition of all tank waste managed by the Office of River Protection, including the retrieval of all tanks not addressed by the Consent Decree in *Washington v. DOE*, Case No. 08-5085-FVS, and the completion of the treatment mission.

The Plan will be updated and submitted to Ecology every three years to document any further optimization of retrieval and waste treatment capabilities to, in the case of SST retrievals, complete such retrievals as quickly as is technically feasible (but not later than the date established in milestone [R-1]), and, in the case of tank waste treatment, complete such treatment as quickly as is technically feasible (but not later than the date established in milestone [WTP-1]), both with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.

One year prior to the issuance of the System Plan, DOE and Ecology will each select the scenarios (including underlying common and scenario-specific assumptions) that will be analyzed in the System Plan, with DOE and Ecology each having the right to select a minimum of three scenarios.

The Plan will include the following elements:

OVERALL MINIMUM REQUIREMENTS

The Plan will present the following minimum information for each scenario evaluated:

Starting October 31, 2010, and every three years thereafter, Ecology and DOE will each have the right to select a minimum of three scenarios that will be analyzed in the System Plan.

Beginning October 31, 2011, and every three years thereafter, issue the System Plan.

- A system description for each system utilized in the planning
- Planning bases for each case
- A description of key issues, assumptions, and vulnerabilities for each scenario evaluated; a description of how such issues, assumptions and vulnerabilities are addressed in the evaluation.
- Sensitivities analysis of selected key assumptions
- Estimated schedule impacts of alternative cases relative to the baseline, including cost comparisons for a limited subset of scenarios that DOE and Ecology wish to analyze further.
- Identification of new equipment, technology, or actions needed for the scenario (e.g., new evaporators or DSTs; new retrieval technologies; waste treatment enhancements or mitigations, such as sodium, sulfate, aluminum and chrome mitigation measures).
- Identification of issues, techniques or technologies that need to be further evaluated or addressed in order to accelerate tank retrievals and tank waste treatment
- Impacts on closure activities for each scenario.

TANK WASTE TREATMENT

The Plan will evaluate scenarios and identify potential near and long-term actions to optimize tank waste treatment so that the treatment mission is completed as quickly as is technically feasible but not later than the date established in milestone [WTP-1], with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.

The Plan will, at a minimum, describe how the tank waste treatment mission can:

Pretreat 100% of the retrievable tank waste (at

- a rate sufficient to operate the HLW facility, LAW facility, and Supplemental Treatment system simultaneously at their estimated average production rates).
- Vitrify 100% of the separated high-level waste stream at estimated average production rates.
- Vitrify 100% of separated low-level waste stream at estimated average production rates.
- Appropriately manage secondary waste streams.

The Plan will take into account the results from testing of the Pretreatment Engineering Platform and other studies.

SUPPLEMENTAL TREATMENT

The Plan will also describe:

- How much total sodium will need to be treated.
- The needed capacity for supplemental treatment to have all the tank waste treated by a date that is as quickly as is technically feasible but not later than the date e stablished in milestone [WTP-1], with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.

The System Plan will outline specific options to treat all the LAW. Such options include:

- Build and operate a 2nd LAW Vitrification Facility.
- Build and operate a Bulk Vitrification Facility.

Not later than the System Plan Report due date of 10/31/2014, DOE will submit a one-time Hanford Tank Waste Supplemental Treatment Technologies Report, which will be required if a tank waste supplemental treatment technology is proposed, other than a 2nd LAW Vitrification Facility.

This report will:

Describe additional treatment facilities and

technologies, and cost which in combination with the WTP are needed to vitrify all of Hanford's tank waste by a date that is as quickly as is technically feasible but not later than the date established in milestone [WTP-1], with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.

- Apply the same selection criteria to all options and include a 2nd LAW Vitrification Facility as an option.
- Include all the results from all waste form performance data (compared against the performance of borosilicate glass) for all the treatment technologies being considered.
- Describe the technologies being considered (including size, throughput, sodium loading, quantity of waste to be processed, quantity of final waste forms, secondary waste quantity and nature, technical viability, and life cycle cost and schedule estimates).
- Include data from both cold and hot testing if bulk vitrification is to be retained as an option.

TANK WASTE RETRIEVAL

The Plan will evaluate scenarios and identify potential near and long-term actions to optimize tank waste retrieval so that the single-shell tank retrievals are completed as quickly as is technically feasible but not later than the date established in milestone [R-1], with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.

The Plan will consider:

- SST integrity information, including the SST integrity assurance review provided under milestone [IA-4] and any further integrity assessments.
- Waste retrieval rate sufficient to operate all waste treatment facilities at their full capacities, considering optimized waste feed rates.
- The effect on waste retrieval rates of the waste

retrieval technologies selected through the TWRWP process.

 Sequences for remaining SSTs and DSTs to be retrieved based on a risk prioritization strategy, waste treatment feed optimization as affected by blending, and Waste Management Waste Area Closure considerations.

The Plan will also take into account the results from previous waste retrievals and other waste treatment studies. This shall include:

- The retrieval methodologies that could be employed and estimated waste volumes to be generated for transfer to the DST or other safe storage.
- DST space evaluations for the waste retrieval sequence.
- Proposed improvements to reduce waste retrieval durations

CONTINGENCY PLANNING

The Plan will identify and consider possible contingency measures to address the following risks:

- Results from SST integrity evaluations.
- If retrievals take longer than originally anticipated and there is potential impact to the schedule for retrieving specified tanks under this agreement.
- If DST space is not sufficient or is not available to support continued retrievals on schedule.
- If any portion of the WTP does not initiate cold commissioning on schedule.
- If any portion of the WTP does not complete hot start on schedule.
- If operation of the WTP does not meet treatment rates that are adequate to complete retrievals under the schedule in this agr eement.
 For example, the contingency measures will address estimated pretreatment facility throughput as affected by ultrafiltration capacity and oxidative leaching requirements.

The contingency measures identified for consideration should include, but not be limited to, providing new, compliant tanks with sufficient capacity and in sufficient

time to complete retrievals under this agreement, regardless of WTP operational deficiencies or retrieval conditions. Systems Plan (SP-2) Every six years, within six months of the issuance of the last revision of the System Plan, the parties will negotiate the following: 1. Commencing as target milestones in 2015 and enforceable milestones in 2021 and each negotiation thereafter, tank waste retrieval sequencing and milestones for the next eight years. 2. Contingency actions and milestones, if and as necessary, for providing new, compliant tanks with sufficient capacity and in sufficient time to complete retrievals under this agree ment, regardless of WTP operational deficiencies or retrieval conditions.	
Systems Plan (SP-2) Every six years, within six months of the issuance of the last revision of the System Plan, the parties will negotiate the following: 1. Commencing as target milestones in 2015 and enforceable milestones in 2021 and each negotiation thereafter, tank waste retrieval sequencing and milestones for the next eight years. 2. Contingency actions and milestones, if and as necessary, for providing new, compliant tanks with sufficient capacity and in sufficient time to complete retrievals under this agree ment, regardless of WTP operational deficiencies or retrieval conditions.	
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 Commencing as target milestones in 2015 and enforceable milestones in 2021 and each negotiation thereafter, tank waste retrieval sequencing and milestones for the next eight years. Contingency actions and milestones, if and as necessary, for providing new, compliant tanks with sufficient capacity and in sufficient time to complete retrievals under this agree ment, regardless of WTP operational deficiencies or retrieval conditions. 	
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complete retrievals under this agree ment, regardless of WTP operational deficiencies or retrieval conditions.	
regardless of WTP operational deficiencies or retrieval conditions.	
retrieval conditions.	
9 Oxymetomorphistal Lancet 1 4 4 4 4	
3. Supplemental treatment selection (a one-time	
selection to be made not later than April 30,	
2015) and milestones, which must be	
consistent with [WTP-1] as established by	
[SP-2(5)]. A 2 nd LAW Vitrification Facility must	
be considered as one of the options.	
*Milestones [ST-2] through [ST-5] are initially	
set as target dates and will be established (as	
may be modified) as interim milestones when	
they are converted to interim milestones in	
accordance with applicable HFFACO	
	·
procedures at the conclusion of this	
negotiation.	
4. The date in milestone [R-1] for completion of	
the tank waste retrievals as expeditiously as	
possible.	
	į
5. The date in milestone [WTP-1] for completion	
of tank waste treatment as expeditiously as	
possible.	
As used in paragraphs A and F shares the	
As used in paragraphs 4 and 5, above, the phr ase 'as	
expeditiously as possible' means, in the case of SST	
retrievals, completing such retrievals as quickly as is	. 1
technically feasible but not later than the date	l
	l
established in milestone [R-1], and in the case of tank	
waste treatment, completing such treatment as quickly	
as is technically feasible but not later than the date	
established in milestone [WTP-1], and in each case	
without excessive difficulty or expense within the	- Additional of the Control of the C
context of such activities, and in consideration of any	
impact on the overall cleanup mission.	
·	1
By the milestone due date, the parties will complete	

	negotiations on the above matters. Although multiple scenarios may be considered in the course of the negotiations, and none may be considered wholly appropriate, the final decisions in items 1 through 5 above will be consistent with a single scenario, including any agreed-upon supplemental sensitivity analyses. The parties agree that the chosen scenario alone need not dictate matters in the negotiations and that other information may be considered as the parties deem appropriate.	
	In the event Ecology and DOE do not reach agreement for the matters in [SP-2] paragraphs 1, 2, and 3, the dispute between Ecology and DOE will be resolved pursuant to the HFFACO Article VIII.	
	The dispute resolution process in HFFACO, Article VIII, does not apply to the determinations in [SP-2] paragraphs 4 and 5. Rather, these disputes shall be governed by the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS. No later than 12/31/2021, the United States and Ecology shall complete negotiations to establish a mechanism that will apply to resolve future disputes regarding the determinations in [SP-2] paragraphs 4 and 5. The United States and Ecology have reserved their rights regarding the mechanism that should apply to such future disputes, in the event that they cannot reach agreement.	
SP-3	Submit a report to the Department of Ecology, with data, whose accuracy is certified in accordance with WAC 173-303-810(13), and which demonstrates that the WTP is designed to accomplish at least the following:	10/31/2011
	 Pretreat 100% of retrievable tank waste (i.e., 48,000 MT of sodium and 25,000 MT of solids). Vitrify 100% of the separated high-level waste stream (estimated at 4.2 MTG/d, at the assumed operating efficiency). WTP LAW combined with supplemental treatment (bulk vitrification or second LAW) can 	
	vitrify 100% of separated low-level waste stream (estimated at 21 MTG/d, at the assumed operating efficiency, for WTP LAW).	

Project	Description	Status	Date
	The following TPA changes shall go into effect upon entry of the Consent Decree in Washington v. DOE, Case No. 08-5085-F VS		
RETRIEVALS (R-1)	Complete waste retrieval from all remaining single-shell tanks. Retrieval standards and completion definitions are provided in milestone [C-7]. The schedule reflects retrieval activities on a farm-by-farm basis. It also allows flexibility to retrieve tanks from various farms if desired to support safety issue resolution, pretreatment or disposal feed requirements, or other priorities.	Enforceable	12/31/2040 or earlier as established by [SP-2]
CLOSURE (C-1)	Complete those portions of the C-200 Closure Demonstration Plan necessary to complete closure plan development for the SST system. Those portions of the demonstration plan include: (1) description of the radioactive waste determination process that DOE will utilize for the component of Tank Waste residuals subject to DOE authority, (2) a RCRA/CERCLA Integration White Paper, (3) a tank removal engineering study, and (4) an evaluation of alternatives for removal of waste from the C-301 catch tank.	Enforceable (TPA)	1/31/2011
CLOSURE (C-2)	Implement and complete all remaining activities in the June 6, 2007 C-200 Closure Demonstration Plan (with any revisions as agreed to by Ecology and DOE). Provide a report that documents the results of those activities and provides interpretations and recommendations consistent with the Project Goals, Objectives, and Products described in Section 5 of the Plan.	Enforceable (TPA)	9/30/2014
CLOSURE (C-3)	Submit complete permit modification requests for Tiers 1, 2, & 3 (see Appendix I) of the SST System, to support final closure requirements for WMA C	Enforceable (TPA)	9/30/2015
CLOSURE (C-4)	Complete the Closure of WMA C.	Enforceable (TPA)	6/30/2019
	The milestone date assumes Ecology will issue		

Project	Description	Status	Date
	a final permit modification decision within 12 months of receiving DOE's modification request under [C-3]. If Ecology does not issue a final permit modification decision within 12 months of receiving DOE's modification request under [C-3], the milestone date will be extended on a day-for-day basis for each day beyond the 12 month period until a final permit modification decision is issued.		
CLOSURE (C-5)	Complete negotiations of HFFACO interim milestones for closure of the second WMA (including a schedule for submittal of closure plans and risk assessments and final closure dates).	Enforceable (TPA)	1/31/2017
CLOSURE (C-6)	Complete negotiations of HFFACO interim milestones for closure of the remaining WMAs (including a schedule for 200 West Area closures, the submittal of closure plans and risk assessments and final closure dates for each WMA).	Enforceable (TPA)	1/31/2022
CLOSURE (C-7)	Closure will follow retrieval of as much tank waste as technically possible, with tank waste residues not to exceed 360 cubic feet (cu. ft.) in each of the 100 series tanks and 30 cu. ft. in each of the 200 series tanks. If the DOE believes that waste retrieval to these levels is not possible for a tank, then DOE will submit a detailed explanation to EPA and Ecology explaining why these levels cannot be achieved, and specifying the quantities of waste that the DOE proposes to leave in the tank. The request will be approved or disapproved by EPA and Ecology on a tank-by-tank or group of tanks basis. Procedures for modifying the retrieval criteria listed above and for processing requests for exceptions to the criteria are outlined in Appendix H to the agreement.	Enforceable (TPA)	1/31/2043
	For the purposes of this agreement all units located within the boundary of each tank farm		

Project	Description	Status	Date
	will be closed in accordance with WAC 173-303-610. This includes contaminated soil and ancillary equipment that were previously designated as RCRA past practice units. Adopting this approach will ensure efficient use of funding and will reduce potential duplication of effort via application of different regulatory requirements: WAC 173-303-610 for closure of the TSD units and RCRA section 3004(u) for remediation of RCRA past practice units.		
	All parties recognize that the reclassification of previously identified RCRA past practice units to ancillary equipment associated with the TSD unit is strictly for application of a consistent closure approach. Upgrades to previously classified RCRA past practice units to achieve compliance with RCRA or dangerous waste interim status technical standards for tank systems (i.e., secondary containment, integrity assessments, etc.) will not be mandated as a result of this action. However, any equipment modified or replaced will meet interim status standards. In evaluating closure options for single-shell tanks, contaminated soil, and ancillary equipment, Ecology and EPA will consider cost, technical practicability, and potential exposure to radiation. Closure of all units within the boundary of a given tank farm will be addressed in a closure plan for the single-shell tanks.		
	Compliance with the work schedules set forth in this milestone series is defined as the performance of sufficient work to assure with reasonable certainty that DOE will accomplish series major and interim milestone requirements.		
	DOE internal work schedules (e.g., DOE- approved schedule baselines) and associated work directives and authorizations shall be consistent with the requirements of this Agreement. Modification of DOE contractor		

Project	Description	Status	Date
	baseline(s) and issuance of associated DOE work directives and/or authorizations that are not consistent with Agreement requirements shall not be finalized prior to approval of an Agreement change request submitted pursuant to Agreement Action Plan Section 12.0.		
	All work under this milestone series shall be conducted in compliance with agreement requirements including but not limited to the parties' agreement Appendix I, "Single-shell Tank System Waste Retrieval and Closure Process", provided that Section 2.1, Tank Waste Retrieval, of Appendix I of the HFFACO shall not apply to the 19 SSTs covered by the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS, except as set forth in Appendix C, Part 3, A.1 and A.2, of such Decree. ¹		
CLOSURE (C-8)	Complete the Closure of All DST Tank Farms	Enforceable (TPA)	TBD, based upon completion of retrieval under [SP-2] plus 5 years but no later than 9/30/2052
CLOSURE (C-9)	Submit a retrieval data report to Ecology for the 19 tanks retrieved under the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS, which report shall include the following elements only of Section 2.1.7 of Appendix I to the HFFACO: 1) Residual tank waste volume measurement, including associated calculations; 2) The results of residual tank waste characterization;	Enforceable	12 months after DOE certifies to Ecology that DOE has completed retrieval of a tank

¹ Section 2.1 of Appendix I of the HFFACO will be amended by adding the following sentence to the end of the first paragraph of Section 2.1: 'This section shall not apply to the 19 SSTs covered by the Consent Decree in *Washington v. DOE*, Case No. 08-5085-FVS, except as set forth in Appendix C, Part 3, A.1 and A.2 of such decree.'

Project	Description	Status	Date
41. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2	 3) Retrieval technology performance documentation; 4) DOE's updated post-retrieval risk assessment; 5) LDMM monitoring and performance results; and,6) Opportunities and actions being taken to refine or develop tank waste retrieval technologies, based on lessons learned. 		
Interim Action (IA-2)	Complete interim barrier demonstration report for the T-106 interim barrier, which report shall include a recommendation and commitment on whether to proceed with additional interim barriers and an evaluation of the barrier's ability to reduce water infiltration that drives migration of subsurface contamination to groundwater.	Enforceable (TPA)	9/30/2010
Interim Action (IA-3)	DOE and Ecology will establish, no later than March 31, 2009, selection criteria for installation of additional interim barriers at additional WMAs (beyond the T-106 and TY barriers). DOE and Ecology will meet yearly to review the monitoring data, agree to changes in monitoring (if needed) and assess the performance of the demonstration barrier. DOE shall submit to Ecology for approval, a final design and monitoring plan for TY farm	Enforceable (TPA)	9/30/2016 or as indicated in the descriptive text of this milestone
	interim barrier by March 31, 2010. Installation of the barrier will be completed by September 30, 2010. By December 31, 2010, complete negotiations to schedule the remaining 4 additional barriers, unless DOE and Ecology agree that monitoring data does not support continued installation of interim barriers.		
	If negotiated, complete installation of 4 additional interim barriers at a rate of one per year, with the first being completed by June 30, 2012. Prior to beginning construction and at least one year before construction is to be complete, DOE will submit to Ecology a final		

Project	Description	Status	Date
	design and monitoring plan for each interim barrier. The design and monitoring plans will be consistent with those developed for WMA T and TY unless DOE and Ecology agree otherwise. Ecology will authorize construction upon approval of these submittals.		
Interim Action (IA-4)	Establish a panel and provide a report on SST integrity assurance review. DOE has selected and established a panel of technical and nationally recognized experts to focus on data available from already-retrieved tanks. The report will contain: 1) The panel's evaluation of the existing known conditions of the SSTs; 2) The Panel's evaluation of the proposed future use of the SSTs; 3) The Panel's recommendations for critical modifications and associated schedule aimed at preventing or minimizing further degradation of SST integrity; 4) The Panel's recommendations for additional evaluations and program elements that would improve existing understanding of SST integrity. An agreement change package with interim milestones as necessary to implement the recommendations will be submitted within 90 days of the report.	Enforceable (TPA)	09/30/2010 or as indicated in the descriptive text of this milestone
Catch Tank Action (CT-1)	Submit to Ecology as an Agreement Primary Document a Catch Tank "assumed leak" response plan. This Plan will include criteria for declaring a tank an assumed leaker, response actions that will be taken, notifications, and provisions to ensure initiation of liquid removal within 90 days. ²	Enforceable (TPA)	60 days after this milestone is adopted by the parties

² The plan submitted pursuant to this milestone will be added to the list of primary documents set forth in Attachment 2, Action Plan, of the HFFACO, p. 9-2, Table 9-1.

Project	Description	Status	Date
Catch Tank Action (CT-2)	Remove pumpable liquid from Catch Tank S- 302. Note: this milestone has already been completed and thus will be removed after public comment	Enforceable (TPA)	9/30/2008 (Completed)
Catch Tank Action (CT-3)	Submit to Ecology as an agreement primary document a report on all Catch Tanks and associated pipelines that are identified in the SST System Part A or that have otherwise been known to be used for SST tank system operations. The report will identify DOE's proposed closure strategy for each of these tanks, and ancillary equipment. For items that are outside of the WMA boundaries, these items will be assigned either to a specific waste site operable unit (200-IS-1) or to a specific WMA for closure. The report shall provide the regulatory basis and supporting information for such assignments. For items assigned to an Operable Unit, M -16-00 processes and milestones will be followed to ensure completion of remedial actions for all non-tank farm operable units by 9/30/2024 (M-16-00). The schedules for remedial action implementation will be established by regulatory agency approval of the Remedial Design/Remedial Action work plans and is enforceable as a HFFACO requirement. For items assigned to WMAs for closure, closure milestones will be included within the applicable WMA closure schedule and milestones. ³	Enforceable (TPA)	60 days after this milestone is adopted by the parties

³ The report submitted pursuant to this milestone will be added to the list of primary documents set forth in Attachment 2, Action Plan, of the HFFACO, p. 9-2, Table 9-1.

September 2007 Hanford Negotiations Update Draft Hanford Lifecycle Scope, Schedule and Cost Report Milestone

THE FOLLOWING CHANGES SHALL GO INTO EFFECT UPON ENTRY OF THE CONSENT DECREE IN WASHINGTON V. DOE, CASE NO. 08-5085-FVS

M-XX-YY THE USDOE SHALL PREPARE AND SUBMIT TO EPA AND ECOLOGY A REPORT SETTING OUT THE LIFECYCLE SCOPE, SCHEDULE AND COST FOR COMPLETION OF THE HANFORD SITE CLEANUP MISSION. THE REPORT SHALL REFLECT ALL OF THOSE ACTIONS NECESSARY FOR THE USDOE TO FULLY MEET ALL APPLICABLE ENVIRONMENTAL OBLIGATIONS INCLUDING THOSE UNDER THE HFFACO, THE CONSENT DECREE IN WASHINGTON V. DOE, CASE NO. 08-5085-FVS, AND THE HANFORD RCRA/HWMA PERMIT. THE REPORT SHALL INCLUDE SCOPE, SCHEDULE AND COST FOR COMPLETING WORK AT EACH OF THE OPERABLE UNITS AND RCRA TSD GROUPS/UNITS THAT ARE LISTED IN APPENDIXES B AND C OF THE HFFACO, IN THE CONSENT DECREE IN WASHINGTON V. DOE, CASE NO. 08-5085-FVS, AND IN THE HANFORD RCRA/HWMA PERMIT, INCLUDING THE HANFORD WASTE TREATMENT AND IMMOBILIZATION PLANT. THE REPORT WILL INCLUDE ALL OTHER CLEANUP AND MONITORING ACTIVITIES (INCLUDING POST-CLOSURE ACTIVITIES) AND ALL RELATED ACTIONS NECESSARY TO COMPLETE THE CLEANUP MISSION TO PROVIDE A COMPLETE UNDERSTANDING OF THE RESOURCES NECESSARY FOR THE HANFORD CLEANUP MISSION.

DUE DATE TO SUBMIT
THE REPORT TO BE
JANUARY 31 AND
ANNUALLY
THEREAFTER, EXCEPT
THAT THE FIRST
REPORT TO BE DUE NO
SOONER THAN 9
MONTHS AFTER
INCORPORATION OF
THIS MILESTONE IN
TPA

THIS REPORT SHALL TAKE INTO ACCOUNT CIRCUMSTANCES EXISTING AS OF THE END OF THE FISCAL YEAR PRECEDING THE MONTH OF THE REPORT, INCLUDING FUNDS APPROPRIATED BY CONGRESS FOR THE HANFORD CLEANUP, BUT SHALL NOT ASSUME ANY LIMITATION ON FUNDING FOR FUTURE YEARS. HOWEVER, THE REPORT WILL TAKE INTO CONSIDERATION CRITICAL RESOURCE AVAILABILITY NOT BASED UPON ASSUMED FUTURE FUNDING LIMITATIONS AND THE PRACTICAL LIMITS OF PROJECT ACCELERATION WHEN DEVELOPING AN EXECUTABLE PLAN. USDOE MAY ALSO INCLUDE COSTS OTHER THAN THOSE DIRECTLY RELATED TO ENVIRONMENTAL OBLIGATIONS (SUCH AS SECURITY COSTS) BUT SHALL CLEARLY DISTINGUISH EXPENDITURES FOR ENVIRONMENTAL OBLIGATIONS FROM OTHER EXPENDITURES. COSTS SHALL BE DISPLAYED BY PROGRAM BASELINE SUMMARY. ADDITIONAL LEVELS OF DETAIL WILL APPEAR IN APPENDICES TO THE REPORT. COST INFORMATION WILL PROVIDE SUFFICIENT DETAIL TO VALIDATE CONSISTENCY WITH THE SCOPE AND SCHEDULE FOR INDIVIDUAL CLEANUP PROJECTS. REPORTING IN THE APPENDICES WILL TYPICALLY BE ONE LEVEL BELOW THE PBS FOR THE LIFECYCLE, AND AT LEVELS BELOW THAT FOR THE NEXT TWO TO FIVE YEARS BEYOND THE EXECUTION YEAR

(USUALLY AT THE ACTIVITY LEVEL WITHIN THE BUDGET

ASSIGNED TO A SPECIFIC PROJECT, E.G., RL-0011, WBS ELEMENT 011.04.01, NUCLEAR MATERIAL STABILIZATION AND DISPOSITION - PFP, DISPOSITION PFP, TRANSITION 234-5Z). EPA AND ECOLOGY PROJECT MANAGERS MAY REQUEST ADDITIONAL LEVELS OF DETAIL BE PROVIDED BY THEIR DOE COUNTERPARTS.

IN CIRCUMSTANCES WHERE FINAL CLEANUP DECISIONS HAVE NOT YET BEEN MADE, THE REPORT SHALL BE BASED UPON THE REASONABLE UPPER BOUND OF THE RANGE OF PLAUSIBLE ALTERNATIVES OR MAY SET FORTH A RANGE OF ALTERNATIVE COSTS INCLUDING SUCH A REASONABLE UPPER BOUND. IN MAKING ASSUMPTIONS FOR THE PURPOSE OF PREPARING THE INITIAL REPORT, USDOE SHALL TAKE INTO ACCOUNT THE VIEWS OF EPA AND ECOLOGY AND SHALL ALSO TAKE INTO ACCOUNT THE VALUES EXPRESSED BY THE AFFECTED TRIBAL GOVERNMENTS AND HANFORD STAKEHOLDERS REGARDING WORKSCOPE, PRIORITIES AND SCHEDULE. THE REPORT SHALL INCLUDE THE SCOPE, SCHEDULE AND COSTS FOR EACH SUCH PBS LEVEL TWO ELEMENT AND SHALL SET FORTH THE BASES AND ASSUMPTIONS FOR EACH CLEANUP ACTIVITY.

AFTER USDOE SUBMITS THE REPORT, THE USDOE WILL REVISE THE REPORT BASED UPON EPA AND ECOLOGY COMMENTS TO REFLECT A COMMON VISION OF THE SCOPE, SCHEDULE AND BUDGET FOR THE REMAINDER OF THE CLEANUP MISSION. IF THE AGENCIES ARE UNABLE TO REACH RESOLUTION ON SPECIFIC ASPECTS OF THE SCOPE OF CLEANUP ACTIONS, THE REVISED DOCUMENT WILL PRESENT A RANGE OF POTENTIAL ACTIONS WITH THE ASSOCIATED SCHEDULE AND BUDGET, THEREBY COMPLETING THE MILESTONE. DOE, EPA AND ECOLOGY SHALL ATTEMPT TO REACH AGREEMENT ON THE REPORT SO IT CAN SERVE AS AN AGREED UPON FOUNDATION FOR PREPARING BUDGET REQUESTS AND FOR INFORMATIONAL BRIEFINGS OF AFFECTED TRIBAL GOVERNMENTS AND HANFORD STAKEHOLDERS. THE REPORT SHALL ALSO SERVE AS THE BASIS FOR ANNUAL DISCUSSIONS AMONG USDOE, EPA AND ECOLOGY ON HOW AND WHEN THE USDOE WILL COMPLETE CLEANUP, HOW CONGRESSIONAL APPROPRIATIONS FOR THE HANFORD SITE FOR THAT YEAR MAY AFFECT ASSUMPTIONS PRESENTED IN THE REPORT, AND HOW MILESTONE CHANGES AND ADJUSTMENTS WILL AFFECT LIFECYCLE SCOPE, SCHEDULE AND COST.

WITHOUT LIMITING ANY DOE OBLIGATION UNDER ANY OTHER PROVISIONS OF THIS AGREEMENT, AND WITHOUT LIMITING ANY DOE OBLIGATION TO DISCLOSE INFORMATION THAT IS OTHERWISE PUBLICLY AVAILABLE, NOTHING IN THIS MILESTONE SHALL BE CONSTRUED, EITHER ALONE OR IN COMBINATION WITH ANY OTHER PROVISION OF THE HFFACO, TO REQUIRE DISCLOSURES RELATED TO INTERNAL FEDERAL BUDGET DELIBERATIONS.

Background Information:

Enclosure Crosswalk to new Tri-Party Agreement Milestones

Crosswalk

Enclosure # cross walked to Tri-Party Agreement Milestone

Enclosure B

WTP-1 M-62-00 WTP-2 M-62-20 WTP-3 M-62-21 ST-1 M-62-30 ST-2 M-62-31-T01 ST-3 M-62-32-T01 ST-4 M-62-33-T01 ST-5 M-62-34-T01 SP-1 M-62-40 SP-2 M-62-45 SP-3 M-62-49

Enclosure C

R-1	M-45-70
C-1	M-45-80
C-2	M-45-81
C-3	M-45-82
C-4	M-45-83
C-5	M-45-84
C-6	M-45-85
C-7	M-45-00
C-8	M-42-00A
C-9	M-45-86
IA-2	M-45-90
IA-3	M-45-92
IA-4	M-45-91
CT-1	M-45-100
CT-2	M-45-XX (TO BE DELETED)
CT-3	M-45-101
<u> </u>	

Background Information:

Consent Decree

between the U.S. Department of Energy and the State of Oregon



U.S. Department of Justice

Environment and Natural Resources Division

David J. Kaplan, Senior Attorney Environmental Defense Section By U.S. Mail: P.O. Box 23986 Washington, DC 20026-3986

By Overnight Express: Rm.8112 Dep't of Justice, Patrick Henry Bldg. 601 D Street, N.W. Washington, D.C. 20004

Telephone (202) 514-0997 Facsimile (202) 514-8865

August 7, 2009

Roger J. DeHoog Senior Assistant Attorney General Oregon Department of Justice 1162 Court Street Salem, OR 97301-4096

State of Washington v. DOE, No. 08-5085-FVS (E.D. Wa.)

Dear Mr. DeHoog:

I write to confirm the agreement between the State of Oregon and the United States Department of Energy and Secretary of Energy Chu (collectively DOE), hereinafter the Parties, as embodied in this letter.

A proposed Consent Decree between Oregon and DOE is attached to this letter. The Parties agree that they will execute this Decree and file a motion requesting the Court enter this Decree at such time that DOE and the State of Washington execute their Consent Decree and request that that Decree be entered by the Court.

We look forward to receiving written confirmation of the State's acceptance of the provisions of this letter.

Sincerely,

JOHN C. CRUDEN

Acting Assistant Autorney General

Environment & Nat. Resources Div.

DAVID J. KAPLAN

United States Department of Justice

Environmental Defense Section

P.O. Box 23986

Washington D.C. 20026-3986

Tel: (202) 514-0997

Attachment:

Proposed Consent Decree between Oregon and DOE

UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF WASHINGTON

STATE OF WASHINGTON,	
Plaintiff,) Civil Action No. 00 5005 TMG
v.	CONSENT DECREE DETAILED
STEVEN CHU, Secretary of the United States Department of) CONSENT DECREE BETWEEN) DEFENDANTS SECRETARY OF ENERGY STEVEN CHU AND
Energy, and the UNITED STATES DEPARTMENT OF ENERGY,) THE U.S. DEPARTMENT OF ENERGY AND INTERVENOR
Defendants.) STATE OF OREGON
))
STATE OF OREGON,	
Intervenor.))

WHEREAS, the State of Oregon has intervened in the above-captioned case and alleged that Defendants Secretary of Energy Steven Chu and the United States Department of Energy (collectively "DOE") have violated certain provisions of the Hanford Federal Facility Agreement and Consent Order ("HFFACO");

WHEREAS, the State of Oregon contends that it has an interest in this matter, and in the resolution of the claims brought by the State of Washington, to protect the public health and environment in Oregon;

WHEREAS, this Consent Decree is separate from the Consent Decree in this case between DOE and the State of Washington on behalf of the Washington Department of Ecology (Ecology) in this case, and is entered in respect to Oregon's role as a neighboring State intervenor;

WHEREAS, Oregon and DOE (the Parties) wish to resolve Oregon's claims in intervention without litigation and have, therefore, agreed to entry of this Consent Decree without adjudication of any issues of fact or law contained herein. This Decree is filed to resolve litigation, solely for the matters covered by this Decree, between Oregon and DOE;

NOW THEREFORE, it is hereby ordered, adjudged, and decreed as follows:

- 1. The Court has jurisdiction over the subject matter and the Parties to this Decree. Venue is proper in the United States District Court for the Eastern District of Washington.
- 2. This Decree applies to and is binding upon DOE and the State of Oregon. DOE remains obligated by this Decree regardless of whether it carries out the terms through agents, contractors, and/or consultants. This Decree neither applies to nor is binding upon any other agency of the United States.
- 3. DOE shall, on a semi-annual basis, submit to Oregon, on the same day that it submits to Ecology, a written report documenting waste treatment plant (WTP) construction and startup activities and tank retrieval activities at Hanford that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period and shall include:

- a. A brief description of project accomplishments and project issues encountered during the reporting period and/or expected in the next six (6) months;
- b. A definitive statement describing whether or not DOE has complied with milestones that have already come due as of the date of the report, and how any missed milestones may affect compliance with other milestones;
- c. Where applicable, a description of actions initiated or otherwise taken to address any schedule slippage;
 - d. Budget/cost status; and
- e. Copies of written directives given by DOE to the contractors for work required by the Decree entered in this case between DOE and Ecology.
- 4. DOE shall, on a monthly basis, submit to Oregon, on the same day that it submits to Ecology, a written summary report (e.g., approximately 10 to 15 pages in length) documenting WTP construction and startup activities and tank retrieval activities covered by the Decree entered between DOE and Ecology in this case. The monthly report shall address: (a) cost and schedule performance (earned value management system graphs) for each major activity; (b) significant accomplishments during the prior month; and (c) significant planned activities for the next month.
- 5. In the event DOE determines that a serious risk has arisen that DOE may be unable to meet a schedule as required in Section IV of the Consent Decree entered in this case between DOE and Ecology, DOE shall notify Oregon, on the same day that it notifies Ecology.

- 6. Absent exigent circumstances, no less than 10 days before DOE files in the Court a motion or petition to modify, or to request judicial dispute resolution under, the Consent Decree entered between DOE and Ecology in this case, DOE shall provide Oregon with notice of DOE's intent to file such a motion or request and the intended nature of that motion or request.
- 7. The Consent Decree between DOE and Ecology requires those parties to meet periodically in intervals of approximately three years to review the requirements of that Consent Decree and to discuss any circumstances that may necessitate the reconsideration of and/or modification to the outstanding requirements of that Decree. DOE agrees to provide Oregon with notice of these meetings no less than 30 days before they are scheduled to occur, and Oregon representatives may attend to observe such meetings. Such permission to attend shall not vest Oregon with any rights as a party to those proceedings. Oregon's unavailability after reasonable notice shall not require the delay or rescheduling of such meetings.
- 8. No provision of this Agreement shall be interpreted as or constitute a commitment or requirement that the United States obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, to the extent applicable.
- 9. This Decree resolves all claims that have been raised by Oregon in its complaint in intervention or any other legal claims that could have been raised by Oregon based upon the facts alleged that form the basis for the claims in Oregon's complaint in intervention, including that DOE has violated or will violate the requirements of the HFFACO (as the HFFACO existed on April 3, 2009), the Washington State Hazardous Waste Management Act or the Resource Conservation

and Recovery Act. Except to enforce the requirement of this Decree, Oregon hereby covenants not to bring any civil, judicial, or administrative enforcement action against DOE, its officials or employees, or its contractors or their subcontractors, their officials, or employees, with respect to such claims.

- 10. This Court retains jurisdiction to enforce the terms of this Decree.
- 11. After entry of the Decree by the Court, the Parties intend to resolve the State's claim for costs of litigation (including reasonable attorney and expert witness fees) under 42 U.S.C. § 6972(e). In the event the Parties are unable to reach agreement as to that claim, the State reserves the right to file an application with the Court for such costs.
- 12. This Consent Decree shall be effective upon the date of its entry and of the entry of the Consent Decree between DOE and Ecology by the Court.
- 13. This Consent Decree shall terminate when the Consent Decree entered between DOE and Ecology has been terminated.

DATED this	day of	_, 20		
		United Sta	ntes District Indoe	

FOR DEFENDANTS SECRETARY OF ENERGY STEVEN CHU and the UNITED STATES DEPARTMENT OF JUSTICE

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