0093560

Change Number M-45-10-01	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date December 21, 2010

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Class of Change

[ ] I - Signatories [X] II - Executive Manager [ ] III - Project Manager

Change Title
Establish new M-045-91 Interim Milestones and Target Dates for Single-Shell Tanks (SSTs) implementing the expert panel's recommendations.

Description/Justification of Change

Hanford Federal Facility Agreement and Consent Order (HFFACO), Milestone M-045-91, requires that the U.S. Department of Energy (DOE), Office of River Protection (ORP) accomplish the following:

- Establish a panel to review available data from retrieved single-shell tanks (SSTs) to (1) evaluate their existing known condition, (2) evaluate proposed future uses, (3) recommend critical modifications and associated schedule to prevent or mitigate degradation, and (4) recommend additional evaluations and program elements that would improve understanding of SST integrity

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Impact of Change

This change implements the requirement of interim milestone M-045-91 and establishes actions to improve the Tri-Parties understanding of Single-Shell Tank (SST) integrity.

Affected Documents

The HFFACO as amended and Hanford Site internal planning, management, and budget documents (e.g., River Protection Project System Plan, Baseline Control documents, and related work authorizations and directives).

Approvals

Hay Chaboyan — DOE — 12/28/10 Date — ✓ Approved ____ Disapproved

N/A — EPA — ____ Date — ____ Approved ____ Disapproved

[signature] — Ecology — 1/3/11 Date — ✓ Approved ____ Disapproved

M-045-91

Description/Justification of Change (continued)

- Provide a report on SST integrity assurance review
- Submit to the Washington State Department of Ecology (Ecology) an agreement change package with interim HFFACO milestones as necessary to implement the panel's recommendations within 90 days of the report.

The first bulleted action, preceding page, was completed by assembling a panel of technical and nationally recognized experts in 2009 and 2010 to review available data from retrieved SSTs and report their findings and recommendations. The second bulleted action, above, was completed by issuing RPP-RPT-43116, "Expert Panel Report for Hanford Single-Shell Tank Integrity Project," and RPP-RPT-45921, "Single-Shell Tank Integrity Expert Panel Report".

On September 27, 2010, ORP completed the third bulleted action, above, with the submittal of Change Control Form M-45-10-01 to Ecology. Subsequent to ORP's September 27, 2010 submittal, Ecology and ORP staff met on October 4, 2010, November 8, November 22, and December 3, 2010 to discuss Change Control Form M-45-10-01. As a result of those meetings, Ecology and ORP reached the agreement described and set forth below establishing eight interim milestones and twelve target dates.

The expert panel (Panel) issued two reports: *Expert Panel Report for Hanford Site Single-Shell Tank Integrity Project*, RPP-RPT-43116, and *Single-Shell Tank Integrity Expert Panel Report*, RPP-RPT-45921. The Panel's reports provided recommendations for actions that the Panel "binned" into the following four categories:

1. Confirmation of tank structural integrity (SI)
2. Assessment of the likelihood of future tank liner degradation (LD)
3. Leak identification and prevention (LIP)
4. Mitigation of contaminant migration (MCM)

The table below, "Cross Walk of Proposed Milestones and Target Dates to Panel Recommendation", identifies recommendations adopted for implementation from the Panel's reports and cross-walks the recommendations to a summary of the proposed Target Dates and Interim Milestones. All of the Target Dates and all but one of the proposed Interim Milestones (third table below) implement the recommendations from RPP-RPT-43116 and RPP-RPT-45921. One of the proposed Interim Milestones (M-045-91H) requires the assessment of the data obtained from the other actions and (if necessary) the establishment of new milestones.

A second table, "Cross-Walk of Panel Recommendations for Possible Re-Evaluation In 2014 in 2014 Under Milestone M-045-91h, or to be Dropped Now" was developed by Ecology and ORP to assist the reader in understanding why some Panel recommendations were either not immediately accepted for action, or were dropped from further consideration.

The final table (with double underling) contains the specifically proposed milestones and due dates to be added to the Tri-Party Agreement under Appendix D of the Action Plan.

CROSS-WALK OF PROPOSED MILESTONES AND TARGET DATES TO PANEL RECOMMENDATIONS

Panel Recommendation Summary (Panel Category)	Reference	Summary of Proposed Interim Milestone
Obtain and Test Sidewall Core (SI-3)	RPP-RPT-43116 and -45921	Provide Ecology a report, and analysis, containing the results of testing performed on the concrete core obtained from Tank A-106 by 5/31/2013. Implement the Data Quality Objectives process to develop a Sampling Analysis Plan for Ecology approval. Coring a second tank may be considered in 2015 (when meeting under M-45-91H) but it is important to demonstrate this work can be accomplished safely and in a cost efficient manner. (M-045-91B and M-045-91B-T01)
Examine "Non-Compliant" Wastes at 25 °C (LD-3) Determine Ammonia Corrosion Control Concentration (LD-5)	RPP-RPT-43116 and -45921	Implement the DQO process with Ecology involvement to develop a Test Plan to evaluate the chemistries as specified in RPP-RPT-43116, Expert Panel Report for Hanford Site Single-Shell Integrity Project. The SST waste chemistries selected for study are outside the understood acceptable limits of the DST chemistries. The Test Plan will be completed and provided to Ecology by 9/30/2011. (M-045-91C)
Test Dome and Concrete Rebar "Plugs" (SI-5)	RPP-RPT-43116 and -45921	Provide Ecology a report containing the results of testing performed on the concrete dome samples obtained from the Tank C-107 plug by 5/31/2013. The test plan and approach for the sample analysis of the cores removed from the C-107 plug will be provided to Ecology for approval. (M-045-91D and M-045-91D-T01)
Perform Dome Deflection Surveys (SI-2)	RPP-RPT-43116 and -45921	Provide a compilation to Ecology of the Single-Shell Tank farms' dome deflection surveys every two years, beginning 9/30/2013. (M-045-91E)
Summarizes (LD-1, LD-6, LIP-5, and LIP-8)	RPP-RPT-43116 and -45921	Provide to Ecology, for approval, a report documenting and evaluating the Summary Conclusions Report on Leak Integrity. (Encompasses M-045-91F, M-

		045-91F-T01, M-045-91F-T02, M-045-91F-T03, and M-045-91F-T04)
Expand Leak Assessment Reports (LD-1)	RPP-RPT-43116 and -45921	Provide to Ecology, for review and comment, a report on the 100-series single-shell tanks which have been or will be identified as leaking in RPP-32681, "Process to Assess Tank Farm Leaks in Support of Retrieval and Closure Planning," leak assessment reports. This report will use an interagency process as described in RPP-32681. This information will support the M-45-91-00 milestone to address overall project adequacy due 7/31/2014. (M-045-91F-T01)
Assess SST Waste Compositional Variation (LD-6)	RPP-RPT-43116 and -45921	Provide to Ecology, as a report, evaluating the common factors of liner failures for SSTs that have leaked and will provide recommendations as appropriate, such as enhanced Leak Detection, Monitoring, and Mitigation. The SSTs that have leaked are identified through the RPP-32681, Process to Assess Tank Farm Leaks in Support of Retrieval and Closure Planning. (M-045-91F-T02)
Evaluate Sludge and Salt-cake Liquid Leak Rates (LIP-5)	RPP-RPT-43116 and -45921	Provide to Ecology an evaluation, for review and comment, of the liquid leak rate assessments of sludge and salt-cake from the Savannah River Site to determine if the results are applicable to Hanford SSTs by 1/31/2012. (M-045-91F-T03)
Assess Feasibility of Testing for Ionic Conductivity Between Inside and Outside of SSTs (LIP-8)	RPP-RPT-43116 and -45921	Provide to Ecology, for review and comment, a report assessing the feasibility of testing for ionic conductivity between the inside and outside of SSTs by 5/31/2013. (M-045-91F-T04)
Perform Modern Structural Analysis and Perform AORs on SSTs (SI-1)	RPP-RPT-43116 and -45921	Provide, for Ecology approval, a Summary Conclusions Report of Structural Analyses of Record (AOR) for SSTs to Ecology by 4/30/2014. This report shall provide conclusions from the four separate AORs and be certified by an IQRPE. The report will also consider the results of the visual inspection of 24 SSTs, (Perform Non-Destructive

		Evaluation of Concrete [SI-4]). NOTE: An Analysis of Record for the Single-Shell Tanks is a comprehensive structural evaluation of the existing reinforced concrete structures to demonstrate that tank farm operations activities are in compliance with American Concrete Institute (ACI) code. • 530, 000 gallon tanks (B, BX, C, T and U Farms) • 750,000 gallon tanks (BY, S, TX and TY Farms) • 1,000,000 gallon tanks (A, AX and SX Farms) • 55,000 gallon tanks (B, C, T and U Farms) (M-045-91G)
	RPP-RPT-43116 and -45921	Provide to Ecology the Structural Analyses of Record final documentation for SSTs for: 530, 000 gallon tanks (B, BX, C, T and U Farms) Targeted in 9/30/2011. (M-045-91G-T01)
	RPP-RPT-43116 and -45921	Provide to Ecology the Structural Analyses of Record final documentation for SSTs for: 750,000 gallon tanks (BY, S, TX and TY Farms) Targeted in 1/31/2012. (M-045-91G-T02)
	RPP-RPT-43116 and -45921	Provide to Ecology the Structural Analyses of Record final documentation for SSTs for: 1,000,000 gallon tanks (A, AX and SX Farms) Targeted in 9/30/2012. (M-045-91G-T03)
	RPP-RPT-43116 and -45921	Provide to Ecology the Structural Analyses of Record final documentation for SSTs for: 55,000 gallon tanks (B, C, T and U Farms) Targeted in 10/31/2013. (M-045-91G-T04)
Perform Non-Destructive Evaluation of Concrete (SI-4)	RPP-RPT-43116 and -45921	Provide a Report to Ecology documenting and evaluating the Visual Inspection of 12 SSTs by 3/31/2011. (M-045-91G-T05)

	RPP-RPT-43116 and -45921	Provide a Report to Ecology documenting and evaluating the Visual Inspection of 12 SSTs by 3/31/2012. (M-045-91G-T06)
No Specific Panel Recommendation	No Specific Panel Recommendation	Submit a change package by 7/31/2015 (if necessary) to establish additional milestones based on information obtained from the actions in the M-045-91 series milestones. (M-45-91H)
No Specific Panel Recommendation	No Specific Panel Recommendation	Provide, to Ecology, an IQRPE certification of SSTs structural integrity for the remainder of the mission, or for such time as the IQRPE believes he/she can reasonably certify. The analysis supporting the certification shall be performed in accordance with the requirements identified for analysis in WAC 173-303-640(2) and will include a due diligence review of RPP-10435. IQRPE certification of the SST leak integrity is not required. A work plan and schedule for additional integrity assessment activities will be submitted to cover any time period between the end date of the IQRPE certification and the end date of the mission.

CROSS-WALK OF PANEL RECOMMENDATIONS FOR POSSIBLE RE-EVALUATION IN 2014 UNDER MILESTONE M-045-91H, OR TO BE DROPPED NOW

Panel Category	Panel Recommendation	Reason for Re-evaluation
SI-4	Perform Non-Destructive Evaluation of Concrete	The need for additional NDE technologies beyond visual inspections, such as guided wave technology will be evaluated for inclusion in M-045-91H as discussed under LD-4 below. The use of a thumper truck could potentially damage ancillary equipment and the SSTs, thus it will not be considered by DOE.
SI-6	Develop and Maintain an Engineering Mechanics Document	The mechanics properties data used in the Analysis of Record reports for the analysis of the structural integrity of the SSTs shall be updated as additional information becomes available. The integrity project has two efforts underway to update mechanics properties: 241-C-107 dome plugs and 241-A-106 core sampling. Information from these efforts and other sources will be included in mechanics properties updates. These will be indentified in AOR summary report, Milestone M-045-91G (SI-1).
SI-7	Effects of Waste Exposure on Structural Integrity	Evaluate the need for these added tests by 7/31/2014. If additional samples are deemed necessary, the concrete samples from C-107 and A-106 coring will be used. If not used, these samples will be archived. The AOR models will evaluate degraded concrete and rebar properties to determine their impact on structural integrity.

		The model results may eliminate the need for waste simulant testing.
SI-8	Feasibility of Corrosion Potential Mapping	Workers would need to excavate to the dome, remove concrete, and expose rebar to use this technology. If the visual inspections of the initial 24 SSTs show that the tanks exhibit rebar corrosion by the presence of rust stains on the concrete, this technology will be evaluated to support the 7/31/2014 decision process.
LD-2	Avoid Addition of Water and Chloride to SSTs	This recommendation has been and continues to be implemented for the SSTs per OSD-T-151-00013, Rev. 3Operating Specifications for Single-Shell Waste Storage Tanks, Section 3.1, Water and Chloride Additions.
LD-4	Develop and Deploy Guided Wave Technology	Evaluate feasibility in 2014 based on the results of the evaluation of chemistry compositions and SSTs with potential for past damage observed from study to support TPA M-45-91C (LD-6). This work will identify waste chemistries found to put tank integrity at risk. In addition, the results from SST structural evaluations and visual inspections could provide additional considerations for tanks at risk. This technology will need to be identified and developed further and field deployment will also need to be studied and determined. The SST Integrity Panel considered both global and local techniques for NDE. This activity would support the macro NDE techniques. LD-7 would investigate local NDE techniques.
		Contingent on the outcome of

LD-7	Assess Deployment of Local NDE Techniques	macro NDE activity, LD-3 and LD-5 corrosion chemistry testing outcomes and LD -6. To be viable, the deployment of these techniques would require the removal of the waste in the area to be inspected and development of remote deployment capability. Selection of overall NDE technology is integrated with LD-4.
LD-8	Installation of Corrosion Potential Probe	This work would be considered based on the outcome of corrosion tests discussed in LD-3 and the identification of particular aggressive layers in the SSTs. Aggressive layers would be indentified as those with corrosion potential from testing done in support of LD-3 (M-045-91F).
LD-9	Testing Tank Liner Hardness	This testing would require removal of metal samples from the tank liner, which would require the retrieval of the waste. The need for development of this work would be guided by the outcome of corrosion testing in support of LD-3. The need for future feasibility studies on the recommendation can be discussed at the 7/31/2014 meeting.
LD-10	Application of Direct Current Potential Drop to SSTs	If the feasibility tests of LIP-8 are unfavorable, this technology could be evaluated. Outcome of testing for LD-3 would also factor in deployment of this technology. Evaluation of the need and feasibility of this technology can be discussed at the 7/31/2014 meeting in support of milestone M-45-91H.
LD-11	Analyze Stress Relaxation of Tank Liners	This work would be considered based on the outcome of corrosion tests discussed in LD-3 and the identification of layers with the propensity for SCC in

		the SSTs. Evaluation of the need and feasibility of this technology can be discussed at the 7/31/2014 meeting in support of milestone M-45-91H.
LIP-1	Continue Leak Detection Monitoring and Best Management Practices and Install Enhanced SST Monitoring	Leak Detection Mitigation and Monitoring (LDMM) was initiated under the M-23-24 milestone and enhanced in support of the M-45-92 milestones. If aggressive waste layers are identified (LD-3), that information will be fed into the M-45-56 process for additional interim measures.
LIP-2	Avoid the Addition of Water-Insoluble Absorbents	This recommendation has been and continues to be implemented for the SSTs per OSD-T-151-00013, Rev. 3, Operating Specifications for Single-Shell Waste Storage Tanks, Section 3.2, Absorbent Additions.
LIP-3	Continue Use of High Resolution Resistivity	This recommendation has been and continues to be implemented for the SSTs per Retrieval Planning through the Tank Waste Retrieval Work Plan approval process.
LIP-4	Increased Water Removal by Pumping SSTs	Extensive work has been done to interim stabilize all the SSTs and remove all pumpable liquids to the extent practical using current technology. Saltwell inflow rates could not exceed 0.05 gal/min, (Reference, "Updated Pumpable Liquid Volume Estimates and Jet Pumping Durations for Interim Stabilization of Remaining SSTs", HNF-2978, Rev. 5). Any additional liquids removal will require development and deployment of new technologies. Therefore this recommendation will not be implemented.
	Investigate or Develop Leak Detection Technologies for Tanks with Less Than 24-inches of Waste	Extensive work has been done to interim stabilize all the SSTs and remove all pumpable liquids to the extent practical using current

LIP-6		technology to conditions required in the consent decree. Since no pumpable liquids remain, monitoring of liquids levels in tanks with small waste heels is not necessary. Therefore this recommendation will not be implemented.
LIP-7	Evaluate the Effect of Lowering SST Waste Temperatures	Extensive work has been done to interim stabilize all the SSTs and remove all pumpable liquids to the extent practical using current technology. Few SSTs have elevated sludge/salt cake temperatures. Therefore this recommendation will not be implemented.
LIP-9	Cathodic Protection for Rebar and Exterior of Tank Liner	This recommendation was made contingent on future evidence of rebar and exterior tank liner corrosion. For the DSTs the DOE evaluated cathodic protection (CP) as part of the 1980 Environmental Impact Statement for the construction of new DSTs (DOE/EIS-0063, Final Environmental Impact Statement, Supplement to ERDA 1538, December 1975, Double- Shell Tanks for Defense High-Level Radioactive Waste Storage). The DOE concluded that stray currents from the CP system could lead to accelerated corrosion. Therefore this recommendation will not be implemented.
LIP-10	Evaluate Coating of SST Liners and Installation of Polymeric Bladders	As SST interim stabilization has removed liquids to the extent practical, installation of liners and coating to prevent additional liquid leakage is not considered feasible. Salt cake and sludge waste would need to be removed before applying liners or coating. Liners/coatings would likely need to be applied to a clean metal surface. Liners and coatings

		could interfere with future liner NDE. Therefore this recommendation will not be implemented.
LIP-11	Avoid Heating and Active Ventilation Strategies for Removing Additional Water from SSTs	This is accepted as current practice. SSTs are passively ventilated during interim storage and only actively ventilated during retrieval under Ecology approved permit DE05NWP-002, as resulting tank emissions could become create potential Industrial Health and Safety concerns.
LIP-12	Avoid Strategies to Immobilize Waste Through the Addition of Gelling Agents	This recommendation has been and continues to be implemented for the SSTs per OSD-T-151-00013, Rev. 3, "Operating Specifications for Single-Shell Waste Storage Tanks", Section 3.2, Absorbent Additions.
MCM-1	Install Surface Barriers over SST Farms	This action is being addressed by the actions necessary to support M-45-56, "Ecology and DOE agree, at a minimum, to meet yearly…for the specific purpose of assessing the adequacy of information, and the need for the establishment of additional agreement interim measures." This action is also being met by the actions undertaken to support M-45-92, "DOE and Ecology will establish, no later than March 31, 2010, selection criteria for installation of additional interim barriers at WMAs (beyond the T-106 and TY 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."
MCM-2	Evaluate Subsurface Leak Mitigation Technologies	This action is being addressed by the actions necessary to support M-45-56, "Ecology and DOE agree, at a minimum, to meet yearly…for the specific purpose of assessing the adequacy of

		information, and the need for the establishment of additional agreement interim measures." Also, the M-15-110 series milestones, for characterization and treatment of deep vadose zone contamination support this recommendation.

Specific changes to Tri-Party Agreement Appendix D are displayed with double underline to indicate addition of text and by ~~strikeout~~ to indicate deletion of text.

M-045-91B	DOE shall submit a Sampling and Analysis Plan to Ecology, for approval, for the sampling of sidewall cores from tank 241-A-106 or alternate tank approved by Ecology. DOE shall implement the EPA Data Quality Objectives (DQO) process (EPA/240/B-06/001, February 2006) in consultation with Ecology to develop the Sampling and Analysis Plan. The DQO will consider whether the coring should be conducted and whether tank A-106 or an alternate tank should be cored. Archived concrete samples will be retained for possible chemical resistance testing.	December 30, 2011
M-045-91B-T01	DOE shall provide Ecology a report containing the results and interpretation of testing, and analysis, performed on the concrete core obtained from Tank A-106 or alternate tank.	September, 2014
M-045-91C	DOE shall implement the DQO process, in consultation with Ecology, to develop and provide Ecology a Test Plan to evaluate the chemistries as specified in RPP-RPT-43116, Rev 0, *Expert Panel Report for Hanford Site Single-Shell Integrity Project.*	September 30, 2011
M-045-91D	DOE shall submit to Ecology, for approval, an analytical test plan for the cores removed from the C-107 plug.	March 31, 2012
M-045-91D-T01	DOE shall provide Ecology a report containing the results and interpretation of testing, and analysis, performed on the concrete dome samples obtained from the Tank C-107 plug.	May 31, 2013
M-045-91E	DOE shall provide to Ecology a compilation of the Single-Shell Tank farms dome deflection surveys every two years, beginning 9/30/2013.	September 30, 2013
M-045-91F	DOE shall provide to Ecology, for approval, a report (Summary Conclusions Report on Leak Integrity) summarizing and evaluating the information submitted under M-045-91F-T01 through –T04.	December 31, 2013
M-045-91F-T01	DOE shall provide to Ecology as a HFFACO secondary document, a report evaluating the applicability to Hanford SSTs, of the liquid leak rate assessments of sludge and salt-cake from the Savannah River Site.	January 31, 2012

M-045-91F-T02	DOE shall provide to Ecology as a HFFACO secondary document a report, evaluating the common factors of liner failures for SSTs that have leaked and will provide recommendations as appropriate, such as enhanced Leak Detection, Monitoring, and Mitigation. For purposes of this milestone, the SSTs that have leaked are identified through the RPP-32681, Rev 0, *Process to Assess Tank Farm Leaks in Support of Retrieval and Closure Planning.*	January 31, 2012
M-045-91F-T-03	DOE shall provide to Ecology, as a HFFACO secondary document, a report assessing the feasibility of testing for ionic conductivity between the inside and outside of SSTs.	May 31, 2013
M-045-91F-T04	DOE shall provide to Ecology, as a HFFACO secondary document, a report on the 100-series single-shell tanks which have been or will be identified as having leaked in RPP-32681, Rev 0, *Process to Assess Tank Farm Leaks in Support of Retrieval and Closure Planning*, leak assessment reports. This report will use an interagency assessment process as described in Section 4.0 of RPP-32681, Rev 0. The report will include identification and evaluation of leak locations and leak causes (including chemistry stress corrosion cracking - SCC) for at least the twenty 100-series tanks currently identified as having leaked; include a leak rate estimate for tanks A-105 and U-104; and include a recommendation whether to update and revise the leak assessment reports to include the leak information. Additional leaking tanks identified as the process continues will be included in the report. For purposes of this milestone, the terms, "confirmed leaker," "assumed leaker," and "leaker" are equivalent descriptions.	July 31, 2013
M-045-91G	DOE shall provide, for Ecology approval, a Summary Conclusions Report of Structural Analyses of Record (AOR) for SSTs. This report shall provide conclusions from the four separate AORs and be certified by an IQRPE. 530, 000 gallon tanks (B, BX C, T and U Farms) 750, 000 gallon ranks (BY, S, TX and TY Farms) 1,000,000 gallon tanks (A, AX and SX Farms) 55,000 gallon tanks (B, C, T and U Farms)	April 30, 2014
M-045-91G-T01	Provide to Ecology the Structural Analyses of Record final documentation for SSTs for: 530, 000 gallon tanks (B, BX, C, T and U Farms)	September 30, 2011
M-045-91G-T02	DOE shall provide to Ecology the Structural Analyses of Record final documentation for SSTs for: 750, 000 gallon tanks (BY, S, TX and TY Farms)	January 31, 2012
M-045-91G-T03	DOE shall provide to Ecology the Structural Analyses of Record final documentation for SSTs for: 1,000,000 gallon tanks (A, AX and SX Farms)	September 30, 2012

M-045-91G-T04	DOE shall provide to Ecology the Structural Analyses of Record final documentation for SSTs for: 55,000 gallon tanks (B, C, T and U Farms)	October 31, 2013
M-045-91G-T05	DOE shall provide a Report to Ecology documenting and evaluating the Visual Inspection of 12 SSTs, per the criteria listed in Table 3.3, "Criteria for Single Shell Tank Inspections", in RPP-PLAN-46847, Rev.0, "Visual Inspection Plan for Single-Shell Tanks and Double-Shell Tanks" By visually inspecting these tanks, future inspections can be prioritized to focus first on tanks that have similar characteristics to tanks that have shown signs of degradation.	March 31, 2011
M-045-91G-T06	DOE shall provide a Report to Ecology documenting and evaluating the Visual Inspection of 12 SSTs, per criteria in M-045-91G-T05. The need for additional visual inspections will be jointly decided by Ecology and ORP following March 31, 2012 (submittal of the report that meets this Target Date).	March 31, 2012
M-045-91H	DOE shall submit a change package (if deemed necessary by DOE and Ecology) to establish additional milestones based on information obtained from the actions in the preceding M-045-91 series milestones to date.	July 31, 2015
M-045-91I	DOE shall provide, to Ecology, an IQRPE certification of SSTs structural integrity for the remainder of the mission, or for such time as the IQRPE believes he/she can reasonably certify. The analysis supporting the certification shall be performed in accordance with the requirements identified for analysis in WAC 173-303-640(2) and will include a due diligence review of RPP-10435. IQRPE certification of the SST leak integrity is not required. A work plan and schedule for additional integrity assessment activities will be submitted as a change package to cover any time period between the end date of the IQRPE certification and the end date of the mission.	September 30, 2018