

<b>Change Number</b> M-91-19-03	<b>Federal Facility Agreement and Consent Order Change Control Form</b>		<b>Date</b> 05/30/2019
<b>Originator</b> Mark French			<b>Phone</b> 509-373-9863
<b>Class of Change</b> <input type="checkbox"/> I – Signatories	<input checked="" type="checkbox"/> II – Executive Managers	<input type="checkbox"/> III – Project Managers	
<b>Change Title</b> Modification of M-091 Series Milestones and Target Dates in TPA Appendix D			
<b>Description/Justification of Change</b> <p>The Washington State Department of Ecology (Ecology) and the U.S. Department of Energy, Richland Operations Office (DOE-RL) initiated M-091-53 negotiations on March 15, 2018, as they agreed there was a need to establish revisions to the milestone M-091 series. Therefore, the Parties also agreed that this constituted Good Cause in accordance with Article XL of the Hanford Federal Facility Agreement and Consent Order (reference Article XL Good Cause for Extensions, paragraph 120.E).</p> <p>Negotiation of these M-091 milestones and target dates were initiated as milestones M-091-53 and M-091-47D required DOE-RL to submit change requests (change control forms) to replace target dates with enforceable milestones for capabilities to process transuranic waste (TRUM) waste and establish interim milestones for annual certification of TRUM and disposal of mixed low level waste (MLLW).</p> <p>The interim milestones and target dates proposed in this change control form support the actions necessary to achieve the major milestone M-091-00, including waste: retrieval, treatment, certification, and shipment.</p>			
<b>Impact of Change</b> <p>This change control form proposes modifications to the following M-091 series interim milestones and target dates:</p> <ul style="list-style-type: none"> <li>• Modifies the scope of interim milestone M-091-03,</li> <li>• Creates 2 new target dates M-091-47-T01 and M-091-47-T02,</li> <li>• Extends the due date of 2 interim milestones M-091-48 and M-091-49,</li> <li>• Changes 3 target dates into interim milestones M-091-52-T02 to M-091-54, M-091-52-T03 to M-091-55 and M-091-52-T04 to M-091-59, and</li> <li>• Creates 12 new interim milestones M-091-49B, M-091-53A, M-091-53B, M-091-53C, M-091-53D, M-091-53E, M-091-56, M-091-57, M-091-58, M-091-60, M-091-61, and M-091-62.</li> </ul> <p>This change control form is being worked in conjunction with Change Control Form M-91-19-02, Establish Due Date of Major Milestone M-091-00 in TPA Appendix D.</p> <p style="text-align: center;">(Continued on page 2)</p>			
<b>Affected Documents</b> HFFACO (Tri-Party Agreement) Action Plan Appendix D, "Work Schedule Milestones and Target Dates Including Designation of Lead Regulatory Agency."			
<b>Approvals</b> <p><b>William F. Hamel</b> Digitally signed by William F. Hamel Approved <input checked="" type="checkbox"/> Disapproved <input type="checkbox"/>  <small>Date: 2021.09.22 07:55:57 -07'00'</small>  W.F. Hamel, DOE-RL</p> <p><i>David B. Bowen</i> Digitally signed by Bowen, David (ECY) Approved <input checked="" type="checkbox"/> Disapproved <input type="checkbox"/>  <small>Date: 2021.09.22 13:43:15 -07'00'</small>  D.B. Bowen, Ecology</p> <p>N/A Approved <input type="checkbox"/> Disapproved <input type="checkbox"/></p> <p>EPA Approved <input type="checkbox"/> Disapproved <input type="checkbox"/></p>			<b>Page 1 of 7</b>

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**Impact of Change (continued):**

This change control form completes the following interim milestones:

- M-091-44T, Submit a change request to establish a schedule for achieving the offsite shipment of all TRUM waste (in above ground storage as of June 30, 2009 and in retrievable storage).
- M-091-49A, Submit a change request to establish a schedule for achieving the retrieval of RSW.

**Authorized Changes**

Modifications to HFFACO Appendix D, "Milestones and Target Dates Including Designation of Lead Regulatory Agency," are denoted by using ~~strikeout~~ to indicate text deletions and double underline to indicate text additions.

Number	Milestone	Due Date
<p>M-091-03 Lead Regulatory Agency: Ecology</p>	<p>Submit a revision of the Hanford Site TRUM waste and MLLW Project Management Plan (PMP) to Ecology pursuant to, and in compliance with, the requirements of <del>agreement TPA Action Plan</del> <u>Section 11.5</u>. Revisions of the PMP shall address RCRA MLLW and TRUM waste and will consider and expressly evaluate the impact on M-091 retrieval, treatment and processing capabilities that may result from retrieval, treatment and/or processing of any other TRUM waste including but not limited to offsite TRUM waste and Hanford Site TRUM waste generated after January 1, 2003.</p> <p>Annual revisions of the PMP will be submitted on June 30 every year starting in 2008 and continuing until the M-091 milestones are completed. The PMP revisions shall include:</p> <ul style="list-style-type: none"> <li>• <u>plans and schedules to meet all the requirements set forth in the M-091 milestone series.</u></li> <li>• <u>as an appendix, a schedule for retrieving RSW, and for certifying and shipping CH waste to the Waste Isolation Pilot Plant, including annual shipping volumes; and</u></li> <li>• <u>with respect to RH TRUM waste, large container TRUM waste, RH MLLW and large container MLLW, the PMP submitted yearly will specifically include at least one measurable action to be taken by DOE to acquire capabilities to manage such wastes.</u></li> </ul> <p>Each revision of the M-091-03 PMP shall upon approval by Ecology, supersede previous M-091-03 PMPs.</p> <p>The PMP will include a description of completed and scheduled work relating to RH waste and large containers of RH and CH waste performed in accordance with the requirements of the M-091 milestone series. The PMP will document work completed during the previous federal fiscal year and work scheduled for the coming fiscal year. The PMP shall identify by citation all publicly available reports describing pertinent project issues and accomplishments, and shall identify anticipated projects for the coming year.</p>	<p>Due Date Annually By June 30</p>

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Number	Milestone	Due Date
	<p><del>With respect to RH TRUM waste, large container TRUM waste, RH MLLW and large container MLLW; the PMP submitted yearly will specifically include at least one measurable action to be taken by DOE to acquire capabilities to manage such wastes.</del></p> <p>PMP revisions will be submitted to Ecology for review and approval as primary documents pursuant to <del>agreement</del> <u>TPA-a</u> <u>Action p</u> <u>Plan</u> <u>Section 9.2.1.</u></p> <p>DOE shall implement the plan as approved.</p>	
<p><u>M-091-47-T01</u> <u>Lead Regulatory</u> <u>Agency: Ecology</u></p>	<p><u>Certify or treat 280 cubic meters of TRUM waste and MLLW DOE achieves credit towards this volumetric requirement through some combination of: 1) certification of small or large container TRUM waste or 2) treatment and disposal of MLLW from small or large containers. Certification of TRUM waste and MLLW and/or treatment and disposal of MLLW in excess of the volumetric requirement of previous M-091-47 series target dates can be credited towards future M-091-47 series target dates.</u></p>	<p><u>9/30/2021</u></p>
<p><u>M-091-47-T02</u> <u>Lead Regulatory</u> <u>Agency: Ecology</u></p>	<p><u>Certify or treat 280 cubic meters of TRUM waste and MLLW subsequent to completing certification or treatment of the volume required by M-091-47-T01. DOE achieves credit towards this volumetric requirement through some combination of: 1) certification of small or large container TRUM waste or 2) treatment and disposal of MLLW from small or large containers. Certification of TRUM waste and MLLW and/or treatment and disposal of MLLW in excess of the volumetric requirement of previous M-091-47 series target dates can be credited towards future M-091-47 series target dates.</u></p> <p><u>Submit to Ecology a TPA change control form (in accordance with TPA Action Plan Section 12.0) to establish the next two annual target dates for certification of TRUM waste and disposal of MLLW.</u></p>	<p><u>9/30/2022</u></p>
<p>M-091-48 Lead Regulatory Agency: Ecology</p>	<p>Complete the offsite shipment of all TRUM waste (in above ground storage as of June 30, 2009 and in retrievable storage).</p>	<p><del>09/30/2030</del> <u>09/30/2050</u></p>

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Number	Milestone	Due Date
<p><b>M-091-49</b> Lead Regulatory Agency: Ecology</p>	<p><del>1. Complete the retrieval and designation of RH RSW (includes the 200 area caissons).</del></p> <p>2. Complete the retrieval and designation of CH RSW in burial grounds 218-W-4B, 218-W-3A and 218-E-12B.</p> <p>a. If specific large containers cannot be removed from a trench within 60 days of being exposed DOE shall notify Ecology within the 60-day period. Ecology will inspect the containers and impose specific conditions for that waste container to prevent releases to the environment. In determining such conditions Ecology will consider among other factors: whether the waste containers has been inspected and found to be intact and not posing a threat to human health and the environment (or re-packaged to prevent release to the environment) and existing documentation concerning the presence of free liquids.</p> <p>b. As RSW retrieval proceeds, DOE shall sample and analyze trench substrates with the purposes of determining whether or not releases of contaminants to the environment have occurred, and, if so, the nature and extent of contamination.</p> <p>Such sampling and analysis shall be in accordance with Ecology approved sampling and analysis plans (SAP). DOE will implement approved SAPs, as a requirement of this milestone, during retrieval of all RSW.</p> <p>The results of burial ground vent and substrate sampling and analysis pursuant to approved SAPs shall be submitted to Ecology quarterly in the project managers' meetings for inclusion in the administrative record. Such reports shall document results and methodologies, shall assess results against regulatory requirements, shall include a description (or descriptions) of documented contaminant releases to the environment, and shall describe planned and/or scheduled additional work.</p> <p>Within 90 days of retrieval, DOE shall designate all CH RSW retrieved from the RSW trenches pursuant to the Washington Administrative Code (WAC) 173-303-070 through 100.</p>	<p><del>09/30/2028</del> <u>09/30/2039</u></p>
<p><u>M-091-49B</u> <u>Lead Regulatory Agency: Ecology</u></p>	<p><u>Complete the retrieval and designation of RH RSW (includes the 200 area caissons).</u></p>	<p><u>9/30/2048</u></p>

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Number	Milestone	Due Date
<p><b><u>M-091-53A</u></b> <u>Lead Regulatory</u> <u>Agency: Ecology</u></p>	<p><u>Remove ten (10) additional mixed waste containers from Outside Storage Area A and/or Outside Storage Area B.</u></p> <p><u>Removal constitutes either:</u></p> <ul style="list-style-type: none"> <li>• <u>Shipment of the container(s) to a TSDf for repack or disposal</u></li> <li>• <u>Relocating the container(s) to a storage area authorized by the Hanford Facility Dangerous Waste Permit, Permit Condition 1.A, or a Temporary Authorization issued pursuant to WAC 173-303-830.</u></li> </ul>	<p><u>11/30/2021</u></p>
<p><b><u>M-091-53B</u></b> <u>Lead Regulatory</u> <u>Agency: Ecology</u></p>	<p><u>Remove ten (10) additional mixed waste containers from Outside Storage Area A and/or Outside Storage Area B.</u></p> <p><u>Removal constitutes either:</u></p> <ul style="list-style-type: none"> <li>• <u>Shipment of the container(s) to a TSDf for repack or disposal</u></li> <li>• <u>Relocating the container(s) to a storage area authorized by the Hanford Facility Dangerous Waste Permit, Permit Condition 1.A, or a Temporary Authorization issued pursuant to WAC 173-303-830.</u></li> </ul>	<p><u>11/30/2022</u></p>
<p><b><u>M-091-53C</u></b> <u>Lead Regulatory</u> <u>Agency: Ecology</u></p>	<p><u>Remove ten (10) additional mixed waste containers from Outside Storage Area A and/or Outside Storage Area B.</u></p> <p><u>Removal constitutes either:</u></p> <ul style="list-style-type: none"> <li>• <u>Shipment of the container(s) to a TSDf for repack or disposal</u></li> <li>• <u>Relocating the container(s) to a storage area authorized by the Hanford Facility Dangerous Waste Permit, Permit Condition 1.A, or a Temporary Authorization issued pursuant to WAC 173-303-830.</u></li> </ul>	<p><u>11/30/2023</u></p>
<p><b><u>M-091-53D</u></b> <u>Lead Regulatory</u> <u>Agency: Ecology</u></p>	<p><u>Remove ten (10) additional mixed waste containers from Outside Storage Area A and/or Outside Storage Area B.</u></p> <p><u>Removal constitutes either:</u></p> <ul style="list-style-type: none"> <li>• <u>Shipment of the container(s) to a TSDf for repack or disposal</u></li> <li>• <u>Relocating the container(s) to a storage area authorized by the Hanford Facility Dangerous Waste Permit, Permit Condition 1.A, or a Temporary Authorization issued pursuant to WAC 173-303-830.</u></li> </ul>	<p><u>11/30/2024</u></p>
<p><b><u>M-091-53E</u></b> <u>Lead Regulatory</u> <u>Agency: Ecology</u></p>	<p><u>Remove ten (10) additional mixed waste containers from Outside Storage Area A and/or Outside Storage Area B.</u></p> <p><u>Removal constitutes either:</u></p> <ul style="list-style-type: none"> <li>• <u>Shipment of the container(s) to a TSDf for repack or disposal</u></li> <li>• <u>Relocating the container(s) to a storage area authorized by the Hanford Facility Dangerous Waste Permit, or a Temporary Authorization issued pursuant to WAC 173-303-830.</u></li> </ul>	<p><u>11/30/2025</u></p>

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Number	Milestone	Due Date
<p><u>M-091-54</u> <del>M-091-52-T02</del> Lead Regulatory Agency: Ecology</p>	<p><del>Submit to Ecology for review as a primary document, an Interim Response Action (IRA) to resume waste retrieval and develop a schedule in accordance with M 91 49A. IRA evaluation shall identify facilities or capabilities necessary to treat, store and dispose of RH waste including caissons.</del> <u>Submit to Ecology for approval, in accordance with Action Plan Section 7.2.3, an Interim Response Action (IRA) proposal (including implementation schedule) to resume RSW retrieval. The IRA proposal shall identify facilities or capabilities necessary to treat, store, and dispose of CH and RH waste including caissons.</u></p>	<p><del>9/30/2021</del> <u>9/30/2028</u></p>
<p><u>M-091-55</u> <del>M-091-52-T03</del> Lead Regulatory Agency: Ecology</p>	<p><del>Submit to Ecology as a primary document, a Conceptual Design Report package (Critical Decision-1) for the Facility/Capability for Contact Handled waste containers, and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2). The Conceptual Design Report package shall include the system specification outline, preliminary drawings, the preliminary hazard analysis, preliminary cost estimate, site development plan, and preliminary schedule for the design, construction, and operation of the facility.</del> <u>Submit to Ecology, a 30 percent Conceptual Design Report package for the Facility/Capability for Contact Handled (CH) waste containers. The Conceptual Design Report package shall include the system specification outline, preliminary drawings, preliminary hazard analysis, preliminary cost estimate, site development plan, and preliminary schedule for the design, permitting, construction, and operation of the facility.</u></p>	<p><del>9/30/2022</del> <u>9/30/2024</u></p>
<p><u>M-091-56</u> <u>Lead Regulatory</u> <u>Agency: Ecology</u></p>	<p><u>Submit to Ecology, a permit modification request to modify the Hanford Facility Dangerous Waste Permit to include the Facility and/or Capability for CH waste containers, based on the 90 percent Final Design Report package. The 90% design shall be complete as necessary to obtain bids for construction, include the system specifications, final drawings, the final hazard analysis, final cost estimate, site development plan, and final schedule for construction, and start-up of the facility.</u></p>	<p><u>9/30/2026</u></p>
<p><u>M-091-57</u> <u>Lead Regulatory</u> <u>Agency: Ecology</u></p>	<p><u>Initiate CH certification activities by processing a TRUM container with results meeting the M-091-00 definition of "Certification."</u></p>	<p><u>9/30/2026</u></p>

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Number	Milestone	Due Date
<p><u>M-091-58</u> Lead Regulatory Agency: Ecology</p>	<p><u>Submit to Ecology, an engineering study of the impacts of radiological decay on the cost and schedule for retrieval, processing, certification, and shipment/disposal of all RH MLLW and RH TRUM waste (in above ground storage as of June 30, 2009 and in retrievable storage).</u></p>	<p><u>9/30/2024</u></p>
<p><u>M-091-59</u> <u>M-091-52-T04</u> Lead Regulatory Agency: Ecology</p>	<p>Remove all mixed waste containers from Outside Storage Area A and B. Removal constitutes either:</p> <ul style="list-style-type: none"> <li>• Shipment of the container(s) to a TSDF for repack or disposal</li> <li>• Relocating the container(s) to a storage area authorized by the Hanford Facility Dangerous Waste Permit Condition 1.A, or a Temporary Authorization issued pursuant to WAC 173-303-830.</li> </ul>	<p>9/30/2026</p>
<p><u>M-091-60</u> Lead Regulatory Agency: Ecology</p>	<p><u>Initiate treatment to LDR treatment standards for MLLW and TRUM waste (in above ground storage as of June 30, 2009). DOE may choose to initiate certification and shipment of TRUM waste for disposal at WIPP in lieu of LDR treatment if, as of the time of shipment, such waste is exempt from LDR treatment standards when disposed at WIPP.</u></p>	<p><u>9/30/2028</u></p>
<p><u>M-091-61</u> Lead Regulatory Agency: Ecology</p>	<p><u>Complete the certification and shipment of CH small packages of TRUM waste for disposal at WIPP in lieu of LDR treatment.</u></p>	<p><u>9/30/2040</u></p>
<p><u>M-091-62</u> Lead Regulatory Agency: Ecology</p>	<p><u>Complete the certification and shipment of CH large boxes of TRUM waste for disposal at WIPP in lieu of LDR treatment.</u></p>	<p><u>9/30/2045</u></p>