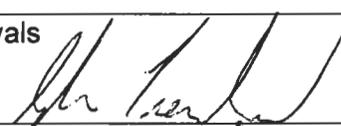
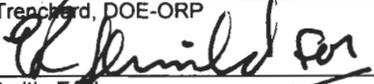
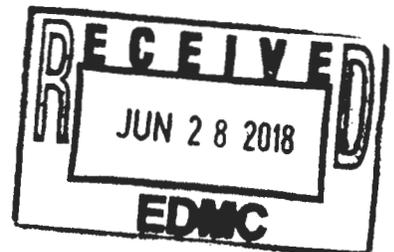


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|--|---|---|------------------------------|
| <b>Change Number</b><br>M-45-18-03   | <b>Federal Facility Agreement and Consent Order<br/>Change Control Form</b> |   | <b>Date</b><br>5/08/2018     |
| <b>Originator</b><br>Jan Bovier, DOE-ORP   |   |   | <b>Phone</b><br>509-376-9630 |
| <b>Class of Change</b><br><input type="checkbox"/> I – Signatories <input checked="" type="checkbox"/> II – Executive Managers <input type="checkbox"/> III – Project Managers   |   |   |                              |
| <b>Change Title</b><br><br>Modification of M-045-92 Milestone for Re-sequencing of Dates for Design and Construction of Single-Shell Tank Farm Interim Surface Barriers  |   |   |                              |
| <b>Description/Justification of Change</b><br><br>This change control form modifies milestone M-045-92 to address construction of all three portions of the SX barrier system (i.e., Barrier 1, Barrier 2, and the SX Expansion Barrier), and modifies the schedule dates for design and construction of Barriers 3 and 4.<br><br>Good cause exists for changing the interim milestone due dates in accordance with Hanford Federal Facility Agreement Consent Order, Paragraph 120.E as the Parties have agreed, through discussions, to different barrier designs, dimensions and locations. This change control form refines and details the interim surface barrier work to be performed under M-045-92 in order to allow the work to progress in an orderly and timely fashion.<br><br><i>Continued on page 2</i> |   |   |                              |
| <b>Impact of Change</b><br><br>This change control form modifies the dates on pending actions under Milestone M-045-92 and establishes new dates for reaching agreement on additional barrier locations and schedule.  |   |   |                              |
| <b>Affected Documents</b><br><br>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).  |   |   |                              |
| <b>Approvals</b>   |   |   | Page<br>1 of 4               |
| <br>G.D. Trenchard, DOE-ORP   | 6-26-18<br>Date   | Approved <input checked="" type="checkbox"/> Disapproved <input type="checkbox"/> |                              |
| <br>A.K. Smith, Ecology   | 6-28-18<br>Date   | Approved <input checked="" type="checkbox"/> Disapproved <input type="checkbox"/> |                              |
| N/A<br>EPA   | Date  | Approved <input type="checkbox"/> Disapproved <input type="checkbox"/>            |                              |



**Description/Justification of Change (continued)**

This new schedule for construction of barriers allows for better staging and sequencing of resources, as well as expands barrier dimensions from original design to provide greater surface-area coverage. This change control form modifies the M-045-92 Milestone for design and construction of interim surface barriers at Single-shell Tank (SST) Farms. This change control form:

- Establishes dates for completing the design of an expansion barrier to cover the 241-SX tanks not covered by Barrier 1 and 2, and for obtaining Ecology approval of the SX Expansion Barrier Design,
- Modifies the date for completion of construction of Barriers 1 and 2 to include the construction of SX Expansion Barrier, extending the date a year, from 10/31/18 to 10/31/19,
- Identifies 241-TX farm as the location for Barrier 3, and 241-U farm as the location for Barrier 4, and
- Establishes dates to reach agreement on the areas to be covered at 241-TX farm by Barrier 3 and at 241-U farm by Barrier 4.



**Authorized Changes**

Modifications to the HFFACO are displayed by using double underline to indicate added text and ~~strikeout~~ to indicate deleted text.

| Number   | Milestone  | Due Date   |
|--|--|--|
| <p>M-045-92</p> <p>Lead Regulatory Agency: Ecology</p> | <p><del>After the determination identified in Milestone M-045-22, complete installation (construction) of four (4) additional interim barriers, according to the following schedule (unless Ecology and USDOE have determined to continue vadose zone testing and DOE has submitted a change request for M-045-92):</del></p> <ul style="list-style-type: none"> <li><del>• By October 31, 2018, complete construction of barriers 1 and 2 in 241-SX farm, per the design and monitoring plans already approved by Ecology under milestones M-045-92, or per updated designs approved by Ecology.</del></li> </ul> <p><del>Completion of construction of the remaining two (2) barriers per the following revised schedule:</del></p> <ul style="list-style-type: none"> <li><del>• DOE and Ecology will agree on locations for Barrier 3 and 4 by September 30, 2017</del></li> <li><del>• Barrier 3 Design/Monitoring Plan — 06/30/18 Submitted to Ecology</del></li> <li><del>• Barrier 3 Design/Monitoring Plan — 09/30/18 Approved by Ecology</del></li> <li><del>• Complete Construction of Barrier 3 — 10/31/19</del></li> <li><del>• Barrier 4 Design/Monitoring Plan — 06/30/19 Submitted to Ecology</del></li> <li><del>• Barrier 4 Design/Monitoring Plan — 09/30/19 Approved by Ecology</del></li> <li><del>• Complete Construction of Barrier 4 — 10/31/20</del></li> </ul> <p><del>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 the final design and monitoring plans. A day for day slip in completing construction of the barrier will be given for each day the Design/Monitoring Plan is not approved following 3 months after submittal.</del></p> <p><u>Complete design and construction of barriers per the following revised schedule:</u></p> <p><u>For Barriers 1 through 4:</u></p> <ul style="list-style-type: none"> <li><u>• Complete construction of Barriers 1 and 2 (also known as the South and North Barriers) in 241-SX farm, per Ecology-approved design and monitoring plans, and of the SX Expansion Barrier per the Ecology-approved design by 10/31/19</u></li> <li><u>• Submit to Ecology Design for Barrier 3 in 241-TX Farm by 10/31/19</u></li> <li><u>• Barrier 3 in 241-TX Farm Design Approved by Ecology 01/31/20</u></li> <li><u>• Complete Construction of Barrier 3 in 241-TX Farm by 10/31/21</u></li> <li><u>• Submit to Ecology Design for Barrier 4 in 241-U Farm by 10/31/21</u></li> <li><u>• Barrier 4 Design Approved by Ecology 01/31/22</u></li> <li><u>• Complete Constructica of Barrier 4 in 241-U Farm by 10/31/23</u></li> </ul> | <p><del>10/31/2020</del></p> <p><u>10/31/2023</u></p> <p>Or As Indicated<br/>In the<br/>Descriptive Text<br/>Of This<br/>Milestone</p> |

- Submit for approval by Ecology a Maintenance and Performance Monitoring Plan for the Interim Barriers program, as a primary document on 10/31/19.

The Maintenance and Performance Monitoring Plan will address:

- Systematic inspections and maintenance of the interim barriers to ensure their performance over their 25-year service life.
- A plan to perform systematic performance monitoring of tank farms covered with interim barriers. For each tank farm with an interim barrier, the plan will evaluate and propose, as appropriate:
  - In-tank monitoring (e.g., surface level and liquid observation wells), and ex-tank drywell monitoring
  - Results of completed drywell monitoring data collection and evaluation.
  - Results of completed tank leak assessments.
- Submit yearly reports summarizing the results of maintenance and performance monitoring activities for the previous year, and research completed to evaluate new technologies.

The Maintenance and Performance Monitoring Plan will be updated and revised with the submittal of each interim barrier design submittal.

Ecology will authorize construction upon approval of the final design. A day-for-day slip in completing construction of the barrier will be given for each day the Design is not approved following 3 months after submittal.