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Change Number M-41-96-02	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date September 4, 1996
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Class of Change  
 I - Signatories       II - Executive Manager       III - Project Manager

Change Title  
 Revise M-41 Interim Milestones due to Flammable Gas Issue

Description/Justification of Change  
 The need to institute flammable gas controls on a number of single shell tanks before they can be pumped has led to a revision of the schedule for interim stabilizing the single shell tanks which have not yet been completed. The revised schedule is reflected in the following M-41 Interim Milestone and Target Date changes:  
 Delete the following M-41 Interim Stabilization Interim Milestones and Target Dates:

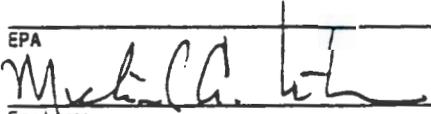
M-41-01-T02	Complete Interim Stabilization of 5 Single Shell Tanks	11/30/1995
M-41-08	Start Interim Stabilization of 1 Non-Watch List Tank in 241-U Tank Farm.	8/31/1996
M-41-08-T01	Complete Interim Stabilization of 1 Non-Watch List Tank in 241-U Tank Farm.	4/30/1997

(continued)

Impact of Change  
 The single shell tank interim stabilization schedule has been revised. All M-41 Interim Milestones and Target Dates are revised because of the need to institute flammable gas controls on additional tanks in the single shell tank farms. The Major Milestone M-41-00 is not changed.

Affected Documents  
 Hanford Federal Facility Agreement and Consent Order, Appendix D, Work Plan.

Approvals

	<u>9/6/96</u>	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved
DOE	Date		
	<u>9/23/96</u>	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved
EPA	Date		
Ecology	Date		



## Description/Justification (cont.)

M-41-09	Start Interim Stabilization of 7 Non-Watch List Tanks in 241-S Tank Farm.	1/31/1996
M-41-09-T01	Complete Interim Stabilization of 7 Non-Watch List Tanks in 241-S Tank Farm.	4/30/1997
M-41-10	Start Interim Stabilization of 2 Flammable Gas Watch List Tanks in 241-A/AX Tank Farm.	4/30/1996
M-41-10-T01	Complete Interim Stabilization of 2 Flammable Gas Watch List Tanks in 241-A/AX Tank Farms.	12/31/1998
M-41-11	Start Interim Stabilization of 4 Flammable Gas Watch List Tanks in 241-U Tank Farms.	8/31/1996
M-41-11-T01	Complete Interim Stabilization of 4 Flammable Gas Watch List Tanks in 241-U Tank Farms.	9/30/1997
M-41-12-T01	Complete Interim Stabilization of 241-BX-106, 241-BY-103 and 241-BY-106.	12/31/1997
M-41-12A	Start Interim Stabilization of Tank 241-BY-105.	TBD
M-41-12A-T02	Complete Interim Stabilization of Tank 241-BY-105.	TBD
M-41-13	Start Interim Stabilization of 3 Organic Watch List Tanks in 241-U Tank Farm.	8/31/1996
M-41-13-T01	Complete Interim Stabilization of 3 Organic Watch List Tanks in 241-U Tank Farm.	1/31/1998
M-41-14	Start Interim Stabilization of 7 Flammable Gas Watch List Tanks in 241-S/SX Tank Farms.	6/30/1997
M-41-14-T01	Complete Interim Stabilization of 7 Flammable Gas Watch List Tanks in 241-S/SX Tank Farms.	11/30/1999
M-41-15	Start Interim Stabilization of 2 Organic Watch List Tanks in 241-S/SX Tank Farms.	6/30/1997
M-41-15-T01	Complete Interim Stabilization of 2 Organic Watch List Tanks in 241-S/SX Tank Farms.	3/31/1999
M-41-16	Start Interim Stabilization of 1 Non-Watch List Tank in 241-T Tank Farm.	3/30/1998
M-41-16-T01	Complete Interim Stabilization of 1 Non-Watch List Tank IN 241-T Tank Farm.	8/31/1998
M-41-17-T01	Complete Interim Stabilization of 1 Ferrocyanide Watch List Tank in 241-T Tank Farm.	5/31/1998

## Description/Justification (cont.)

M-41-18	Start Interim Stabilization of 1 Flammable Gas Watch List Tank in 241-T Tank Farm.	4/30/1998
M-41-18-T01	Complete Interim Stabilization of 1 Flammable Gas Watch List Tank in 241-T Tank Farm.	7/31/1998
M-41-19	Start Interim Stabilization of 1 Organic Watch List Tank in 241-C Tank Farm.	9/30/1998
M-41-19-T01	Complete Interim Stabilization of 1 Organic Watch List Tank in 241-C Tank Farm.	3/31/1999

The following Interim Milestones and Target Dates are added:

M-41-20	Start Interim Stabilization of 4 Single Shell Tanks.	9/30/1996
M-41-21	Start Interim Stabilization of 2 Single Shell Tanks.	3/31/1997
M-41-22	Start Interim Stabilization of 6 Single Shell Tanks.	9/30/1997
M-41-23	Start Interim Stabilization of 8 Single Shell Tanks.	3/31/1998
M-41-24	Start Interim Stabilization of 9 Single Shell Tanks.	9/30/1998
M-41-25	Start Interim Stabilization of 3 Single Shell Tanks.	3/31/1999
M-41-26	Start Interim Stabilization of 2 Single Shell Tanks.	9/30/1999
M-41-27	Complete Salt Well Pumping of Single Shell Tanks.	9/30/2000
M-41-27-T01	Complete Salt Well Pumping of 1 Single Shell Tank.	9/30/1996
M-41-27-T02	Complete Salt Well Pumping of 4 Single Shell Tanks.	9/30/1997
M-41-27-T03	Complete Salt Well Pumping of 5 Single Shell Tanks.	9/30/1998
M-41-27-T04	Complete Salt Well Pumping of 8 Single Shell Tanks.	9/30/1999
M-41-27-T05	Complete Salt Well Pumping of 16 Single Shell Tanks.	9/30/2000

The M-41-00 Major Milestone date of September 30, 2000 is not impacted by this change.

On October 16, 1995 an Unreviewed Safety Question (USQ) Evaluation (1) was completed for the U.S. Department of Energy (DOE) by one of its contractors which raised serious concerns on the safe operation of flammable gas tanks. This evaluation was based on a screening (2) of the Hanford tanks for trapped gas prepared for the DOE by a different Hanford contractor. The DOE was informed on October 17, 1995 of these concerns, and advised the Washington Department of Ecology (Ecology) and the U. S. Environmental Protection Agency (EPA) of the issues at the Unit Managers Meeting on the same day. After further review of the facts in the technical studies, the DOE was unable to make a final determination on the safe operation of the flammable gas tanks without conducting a

Description/Justification (cont.)

Safety Analysis. The DOE informed Ecology on December 12, 1995 (3), of the need to invoke the Creation of Danger provision of the Hanford Federal Facility Agreement and Consent Order due to the flammable gas concerns.

The DOE recognizes the responsibility to meet established Tri-Party Agreement schedules, but when issues arise which can impact safe operations, DOE must evaluate the issues on a case by case basis and proceed to resolve the USQ in an orderly manner. Safety Analysis work on the flammable gas issue was contracted to a third party and a report, assessing tank 241-A-101 only, was scheduled for completion on January 31, 1996. The Safety Analysis, however, was not adequate to allow the restart of interim stabilization work for the single shell tanks involved in Milestone M-41-09 and subsequent milestones. The initial phase of the Safety Analysis was completed in August 1996, and forms the basis for the replacement interim milestones described above. Subsequent safety analyses, addressing additional tanks and tank farms, were found to be needed and additional safety analysis work is being carried out.

The flammable gas issue has to date impacted five interim milestones and three target dates. Target Date M-41-01-T02 was delayed by the need to institute flammable gas controls on tank 241-BY-109, which is the only remaining tank to be pumped under that target. Five of the seven tanks in S Farm which were scheduled for start of interim stabilization to complete Interim Milestone M-41-09 are currently designated as part of the USQ, and flammable gas watch list controls have been implemented for these tanks. This results in a delay for the start of pumping the potential watch list tanks in S Farm to accommodate the safety assessment work and the time needed for review of the work. The target date M-41-09-T01 for completion of the interim stabilization of the tanks is also delayed because of the delay in the start of this work. Interim Milestone M-41-10, which required start of interim stabilization for two flammable gas watch list tanks in 241-A/AX tank farms by April 30, 1996, was also impacted by the need to do additional safety analysis work. Target M-41-10-T01 is consequently delayed. Additional Interim Milestones, M-41-08, M-41-11 and M-41-13, due August 31, 1996, have been impacted.

A recovery plan has been developed and the new milestones stated above are supported by a schedule in that plan. The schedule addresses the safety analysis requirements for the tanks, as well as the additional preparation time needed for the equipment and administrative controls due to the flammable gas concerns. The new interim milestones and target dates do not specify individual tanks in order to allow flexibility needed to address future considerations as they arise and to fully integrate the interim stabilization work with other Tank Farm programs.

- (1) R. J. Van Vleet and R. L. Guthrie, Unreviewed Safety Question Evaluation, TF-95-0095, Westinghouse Hanford Company, October 16, 1995.
- (2) Whitney, Paul, Screening the Hanford Tanks for Trapped Gas, PNL-10821, Pacific Northwest Laboratory, Richland, Washington, 1995.
- (3) Letter, J. Kinzer to M. Wilson, "Creation of Danger, Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement," dated December 12, 1995).