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Richland Operations Office
P.O. Box 550
Richland, Washington 99352

JAN 12 2000

Mr. Douglas R. Sherwood
Hanford Project Manager
U.S. Environmental Protection Agency
712 Swift Boulevard, Suite 5, MSIN B5-01
Richland, Washington 99352

Mr. Michael A. Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

RECEIVED
FEB 07 2000

EDMC

Dear Messrs. Sherwood and Wilson:

**REVISED 100 AREA REMEDIAL ACTION (RA) HANFORD FEDERAL FACILITY AGREEMENT
AND CONSENT ORDER (TRI-PARTY AGREEMENT) MILESTONES**

Attached is the revised Federal Facility Agreement and Consent Order Change Control Form M-16-99-02 regarding the following four 100 Area RA Tri-Party Agreement milestones:

1. M-16-10A, Initiate Remedial Action in the 100-KR-1 Operable Unit
2. M-16-13A, Initiate Remedial Action in the 100-FR-1 Operable Unit
3. M-16-13B, Complete Remediation and backfill of 16 liquid waste sites and the process effluent pipelines in the 100-FR...
4. M-16-26C, Complete Remediation and backfill of 10 liquid waste sites and the process effluent pipelines in 100-HR...

The 110-day notice sent to the State of Washington Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) on October 13, 1999, stated that the formal change package would be issued in December 1999. A draft copy of the Federal Facility Agreement and Consent Order Change Control Form M-16-99-02 was provided and discussed with D. Faulk and D. Holland from the above agencies during the December 1999 Unit Managers' Meeting. No comments have been received from the agencies.

The U.S. Department of Energy, Richland Operations Office is available to work with Ecology and EPA in obtaining the approval of this Federal Facility Agreement and Consent Order Change Control Form M-16-99-02.

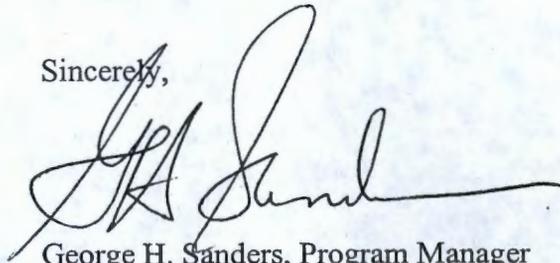
Addressees

-2-

JAN 12 2000

If you should have any questions, please contact D. C. Smith, Environmental Restoration Division on (509) 372-1544.

Sincerely,

A handwritten signature in black ink, appearing to read "G. H. Sanders", written over a light blue grid background.

George H. Sanders, Program Manager
Office of Regulatory Liaison

DCS:ERD

enclosure

cc w/encl:

G. Black, BHI

J. R. Wilkinson, CTUIR

D. Holland, Ecology

R D. Faulk, EPA

R. F. Stanley, Ecology

J. S. Hertzal, FDH

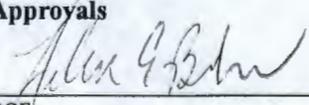
M. B. Reeves, HAB

P. Sobotta, NPT

M. L. Blazek, OOE

R. Jim, YN

TPA Administrative Record, FDH

Change Number M-16-99-02	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date December 20, 1999
Originator D. C. Smith DOE/RICHLAND OPERATIONS-ENVIRONMENTAL RESTORATION PROJECT		Phone (509) 372-1544
Class of Change <input type="checkbox"/> I - Signatories <input checked="" type="checkbox"/> II - Executive Manager <input type="checkbox"/> III - Project Manager		
Change Title Revise Group 4 TPA Milestones 1) M-16-10A, Initiate Remedial Action in the 100-KR-1 Operable Unit 2) M-16-13A, Initiate Remedial Action in the 100-FR-1 Operable Unit 3) M-16-13B, Complete 16 waste sites and the process effluent pipelines in 100-FR-1 4) M-16-26C, Complete 10 waste sites and the process effluent pipelines in 100-HR-1		
Description/Justification of Change The 100-FR-1, 100-HR-1, and 100-KR-1 TPA Milestones listed above are applicable to Hanford's Environmental Restoration Program for the 100 Area Remedial Action. The contracting strategy developed and implemented, to remediate the waste sites contained in these milestones, was based on including the high priority liquid waste sites (Group 4) in one contract (i.e. one contractor would perform all remediation). This was done to create economy of scale, reduce proposal preparation costs, and streamline the overall process. The unit rate pricing agreed to for this contract was based upon the assumption that active waste site excavation in one operable unit would be completed prior to initiating the next operable unit activity. This strategy is also consistent with the current capacity of the ERDF transportation and disposal infrastructure and maintains DOE's intent to have ongoing remediation continuing in the 100 Area. This pricing provided the government with the most economical method to achieve the remediation activities. As a result of this contract the schedule/sequence for accomplishing these milestones is as follows (Group 4 scope only): <ol style="list-style-type: none"> 1. H Area excavation will be completed first 2. F Area excavation will begin after completion of H area excavation 3. H Area CVP process and backfill will begin after completion of H excavation 4. F Area CVP process and backfill will begin after completion of F excavation 5. K Area excavation will begin after completion of F excavation 6. K Area CVP process and backfill will begin after completion of K excavation 		
Description/Justification of Change Continued on Page 2		
Impact of Change Milestone initiation and completion dates require changes. No other impacts can be identified. The intention is to have ongoing remediation continuing in the Hanford 100 Area Operable Units.		
Affected Documents Hanford Federal Facility Agreement and Consent Order Action Plan. Remedial Design Report/Remedial Action Work Plan for the 100 Area.		
Approvals		
 _____ DOE	1/13/00 _____ Date	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved
_____ EPA	_____ Date	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved
_____ Ecology	_____ Date	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved

TPA milestone M-16-26A "Initiate Remedial Action in the 100-HR-1 Operable Unit" was extended by six months (reference TPA change notice M-16-98-02 [9/30/98 to 3/31/99]). The completion milestone M-16-26C, for 100-H-1, was not extended at that time. In addition to the six-month delay, the remediation at the 100-HR-1 Operable Unit currently has identified 15% scope growth due to plumes in those sites that have been excavated. Other remediation activities in the 100 Areas have experienced up-to 40% scope growth. Therefore as a result of the delayed start and the potential addition of up-to 40% scope growth, the forecast date for completion of the liquid waste sites and process effluent pipelines in the 100-HR-1 Operable Unit is being extended.

Modify completion date for M-16-26C (~~strikethrough~~ indicates text to be removed, ~~shading~~ indicates text to be added):

M-16-26C	Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit as defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area.	8/31/00 11/30/01
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TPA milestones M-16-13A, "Initiate Remedial Action in the 100-FR-1 Operable Unit" and M-16-13B, "Complete remediation and backfill of 16 liquid waste sites and process effluent pipelines in the 100-FR-1..." are impacted as a result of the 100-HR-1 delayed start and scope growth. Therefore, as a result of the delayed start and the potential addition of up-to 40% scope growth at the 100-HR-1 Operable Unit, the forecast dates for initiation and completion of the liquid waste sites and process effluent pipelines in the 100-FR-1 Operable Unit are being extended. The extension also incorporates a change in production rates (durations) plus up-to 40% potential scope growth at 100-FR-1. The production rate change, is based on comparing the actual durations (for excavation, verification/closeout, and backfill) from the previous 4 years to the assumptions made during the preparation of the original TPA milestones. The original durations were unachievable. The new production rates add an additional 14 months to the baseline schedule. Therefore, as a result of these changes the new revised milestones dates for M-16-13A and M-16-13B are being extended.

Modify completion date for M-16-13A and M-16-13B (~~strikethrough~~ indicates text to be removed, ~~shading~~ indicates text to be added)

M-16-13A	Initiate Remedial Action in the 100-FR-1 Operable Unit	1/31/00 3/31/01
M-16-13B	Complete Remediation and Backfill of 16 Liquid Waste Sites and Process Effluent Pipelines in the 100-FR-1 and 100-FR-2 Operable Units as defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area	8/31/03 11/30/06

TPA milestone M-16-10A, "Initiate Remedial Action in the 100-KR-1 Operable" is impacted as a result of the 100-HR-1 delayed start plus scope growth, and duration changes and scope growth at the 100-FR-1. Therefore, as a result of these changes the forecast date for initiation remediation of the liquid waste sites in the 100-KR-1 Operable Unit is being extended.

Modify completion date for M-16-10A (~~strikethrough~~ indicates text to be removed, ~~shading~~ indicates text to be added):

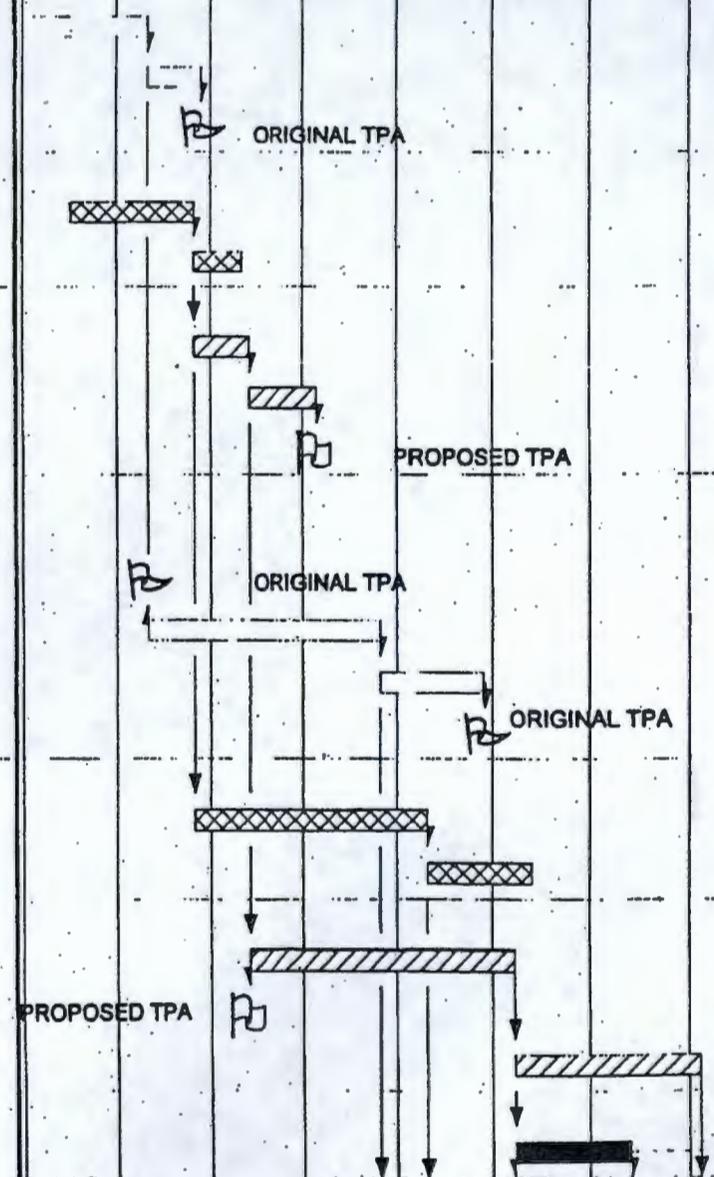
M-16-10A	Initiate Remedial Action in 100-KR-1 Operable Unit	7/31/02 3/01/05
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Note: See Attachments 2 and 3 for additional details on how the dates were calculated.

Attachments:

1. TPA Change Notice M-16-98-02
2. Schedule
3. TPA Change Notice Summary Table

ACTIVITY ID	Activity Description	Orig Dur	Plan Start	Early Finish	FY01	FY02	FY03	FY04	FY05	FY06	FY07
100 H AREA											
ORIGINAL SCHEDULE											
0100	ORIGINAL 100 H EXCAVATION	347*	01OCT98*	28JAN00							
0120	ORIGINAL 100 H BACKFILL	154*	31JAN00*	31AUG00							
0121	ORIGINAL 100 TPA MILESTONE M-16-26C	0		31AUG00							
6 MONTH DELAY											
1100	100 H EXC 6 MONTH START DELAY	347	31MAR99*	27JUL00							
1120	100 H BACKFILL 6 MONTH DELAY	132	28JUL00	29JAN01							
PLUME GROWTH AT H											
2100	100 H EXC 40% PLUME GROWTH AT H	155	28JUL00	01MAR01							
2120	100 H BACKFILL PLUME GROWTH AT H	196	02MAR01	30NOV01							
2121	PROPOSED TPA MILESTONE M-16-26C	0		30NOV01							
100 F AREA											
ORIGINAL SCHEDULE											
0139	ORIGINAL 100 F TPA MILESTONE M-16-13A	0	31JAN00								
0140	ORIG 100 F EXC	662	31JAN00	30JUL02							
0160	ORIG 100 F BACKFILL	283*	31JUL02	29AUG03							
0161	ORIGINAL 100 F TPA MILESTONE M-16-13B	0		31AUG03*							
6 MONTH DELAY											
1140	100 F EXC DELAYED 6 MONTHS	652	28JUL00	27JAN03							
1160	100 F BACKFILL DELAYED 6 MONTHS	284	28JAN03	27FEB04							
PLUME GROWTH AT H WITH DURATION ADJUSTMENT											
2140	100 F EXC AFFECTED BY H PLUME GROWTH	736	02MAR01	26DEC03							
2141	PROPOSED TPA MILESTONE M-16-13A	0	02MAR01								
2160	100 F BACKFILL AFFECTED BY H PLUME GROWTH	486	29DEC03	07NOV05							
PLUME GROWTH AT F											
3140	PLUME GROWTH AT 100 F EXC	306	29DEC03	28FEB05							



Project Start: 03DEC97
 Project Finish: 04JUN07
 Date Date: 01SEP98
 Run Date: 17DEC99

Early Bar
 Progress Bar

TPA1

PROPOSED TPA MILESTONE SCHEDULE
 Attachment #2
 TPA Change Form M-99-16-02

ID	Description	Dur	Start	Finish
3160	PLUME GROWTH AT 100 F BACKFILL	278	08NOV05	30NOV06
3161	PROPOSED TPA MILESTONE M-16-13B	0		30NOV06
100 K AREA				
ORIGINAL SCHEDULE				
0179	ORIGINAL 100 K TPA MILESTONE M-16-26B	0	31JUL02	
0180	ORIG START 100 K EXCAVATION	590	31JUL02	02NOV04
6 MONTH DELAY				
1180	START 100 K EXC 6 MONTH DELAY	590	28JAN03	02MAY05
PLUME GROWTH AT H				
2180	START 100 K EXC H PLUME GROWTH	590	29DEC03	31MAR06
PLUME GROWTH AT F				
3180	START 100 K EXC F PLUME GROWTH	590	01MAR05	04JUN07
3181	PROPOSED TPA MILESTONE M-16-26B	0	01MAR05	

ORIGINAL TPA

PROPOSED TPA

PROPOSED TPA

Project Start	03DEC07	1 Early Bar
Project Finish	04JUN07	Progress Bar
Date Date	01SEP96	
Run Date	17DEC98	

PROPOSED TPA MILESTONE SCHEDULE
Attachment #2
TPA Change Form M-99-16-02

Sheet 2 of 2

TPA CHANGE NOTICE SUMMARY TABLE

075501

Assumptions:

- 1) The original duration for H Area was 23 months and F Area was 43 months (see note 11). K Area does not have a completion milestone.
- 2) 40% plume quantities are based upon "experience" from current remediation projects (B/BC, D/DR, and 300 Areas).
- 3) The sequence for performing the work is as follows (Group 4 scope only):
 1. H Area excavation will be completed first
 2. F Area excavation will begin after completion of H area excavation
 3. H Area CVP process and backfill will begin after completion of H excavation
 4. F Area CVP process and backfill will begin after completion of F excavation
 5. K Area excavation will begin after completion of F excavation
 6. K Area CVP process and backfill will begin after completion of K excavation
- 4) Planning breakdown (baseline quantities) is as follows:
 1. 60% of schedule is required for excavation duration
 2. 40% of schedule is required for sampling, report preparation (CVP process), and backfill durations
- 5) Plume excavation activities require 10% more effort than baseline due to the more rigorous field monitoring and methodical excavation techniques.
- 6) Plume schedule calculation: (original duration)(percent of schedule for the activity)(plume quantity)(adjustment factor) = addition duration [assumption 5].
- 7) The current Remediation Subcontractor will complete H, F, and K Area "Group 4 Remediation".
- 8) Assumptions included in the FY00-02 detailed Work Plan are applicable.
- 9) Waste volumes are in accordance with the 100 Area Remedial Design Report (RDR), 40% scope increase = (RDR volume)(0.40).
- 10) The finish dates were moved to coincide with the end of the month.
- 11) The duration adjustment of 14 months for "experienced production" is included in F and K milestones (M-16-13B & M-16-10A).

GROUP 4 TPA MILESTONES					
Milestone	Description	Original Date	Six Month Delay	40% Plume [note 6] @ H (23 months)(0.6)(0.4)(1.1) = 6 months for excavation (23 months)(0.4)(0.4)(1.1) = 4 months for CVP & backfill Total of 10 months	40% Plume [note 6] @ F (57 months)(0.6)(0.4)(1.1) = 15 months for excavation (57 months)(0.4)(0.4)(1.1) = 10 months CVP & backfill Total of 25 months (note 11)
M-16-26C	Complete H	8/31/00	1/29/01	11/30/01	N/A
M-16-13A	Start F	1/31/00	7/28/00	3/02/01	N/A
M-16-13B	Complete F	8/31/03	2/27/04	N/A	11/30/06 (note 11)
M-16-10A	Start K	7/31/02	1/28/03	N/A	3/1/05 (note 11)