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Department of Energy  
Richland Field Office  
P.O. Box 550  
Richland, Washington 99352

9301603

93-TPA-056

FEB 1 1993



Mr. Andy Boyd  
U.S. Environmental Protection Agency  
Region 10  
1200 Sixth Avenue  
Seattle, Washington 98101

Dear Mr. Boyd:

TRANSMITTAL OF SIGNED CHANGE REQUEST (M-17-92-04)

Enclosed please find the signed Federal Facility Agreement and Consent Order Change Request for M-17-92-04.

If you have any questions, please contact me on (509) 376-6798.

Sincerely,

*Steven H. Wisness*  
Steven H. Wisness  
Hanford Project Manager

EAP:DLS

Enclosure

cc w/encl:  
B. A. Austin, WHC  
Administrative Record, H6-08



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Change Number <b>M-17-92-04</b>	<b>Federal Facility Agreement and Consent Order Change Control Form</b> <small>Do not use blue ink. Type or print using black ink.</small>	Date <b>12/09/92</b>
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Originator <b>D. Templeton (DOE-RL)</b>	Phone <b>509/373-2966</b>
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Class of Change  
 I - Signatories       II - Project Manager       III - Unit Manager

Change Title  
**U03/U Plant Wastewater Discharge Flow Rate Reduction**

Description/Justification of Change

Due to the delay in the UO<sub>3</sub> Plant Stabilization Run, the milestone for achieving the final UO<sub>3</sub>/U Plant Wastewater flow rate reduction needs to be modified to accommodate the Run.

The wording of interim milestone M-17-17A will be clarified to specify the flow rate measurement method.

See the discussion on the attached page.

Affected Documents

Hanford Federal Facility Agreement and Consent Order Plan Table D-3 and Figure D-1. Ecology Consent Order DE-91NM-177, Table 6.

Impact of Change

The relative wastewater flow rate discharge profile against time for discharge to the 216-U-14 Ditch is not modified as a result of this Change. The total volume of the U03/U Plant Wastewater discharged to the 216-U-14 Ditch is not modified as a result of this change.

Approvals	___ Approved      ___ Disapproved
DOE <i>J. H. W.</i>	<u>12/9/92</u> Date
EPA <i>Douglas R. Howard</i>	<u>12/11/92</u> Date
Ecology <i>Dave Nylander</i>	<u>1/21/93</u> Date

93128651931

Description/Justification of Change

Modify TPA milestones M-17-17A and M-17-17D. The modifications are noted by italics in the milestone listing below. Deletions in the milestone wording are noted by strike-outs.

M-17-17A September 1991

Except as specified below, limit discharge of the wastewater to the ditch to less than or equal to 450 gallons per minute, averaged over the calendar month. During the stabilization run, limit the discharge of wastewater to the ditch to less than or equal to 750 gallons per minute, averaged over the calendar month. Measurement of the discharge flow rate shall be by ~~an instantaneous flow rate recorder system with data recording by a strip chart,~~ *a flow measurement system which provides instantaneous flow rate recording and a flow totalizer.*

Note: The Stabilization Run of the  $UO_3/U$  Plant refers to the operation of the Plant in the Calcination Mode as described in the  $UO_3/U$  Plant Wastewater Stream Specific Report. The Stabilization Run will occur over a short period of time and is necessary to convert Plant inventory to a more stable form for storage.

M-17-17D December 1992

~~Limit  $UO_3/U$  Plant Wastewater effluent flow to less than or equal to 250 gallons per minute, averaged over the calendar month.~~  
*Except as specified below, limit discharge of the  $UO_3/U$  Plant Wastewater to the 216-U-14 Ditch to less than or equal to 250 gallons per minute, averaged over the calendar month. During pre-campaign processing, limit discharge of the wastewater to the ditch to less than or equal to 450 gallons per minute averaged over the calendar month. During the Stabilization Run, limit the discharge of wastewater to the ditch to less than or equal to 750 gallons per minute, averaged over the calendar month. Limit the flow rate to less than or equal to 250 gallons per minute, averaged over the calendar month, by the end of the calendar month following the Stabilization Run completion. The pre-campaign processing is expected to last approximately four weeks, the Stabilization Run is expected to last approximately eight weeks. EPA and Ecology will be notified in writing at least five working days prior to initiating the flow rate increase to 450 gpm.*

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Justification for the changes:

The original milestones for this wastewater stream (M-17-17 through M-17-17D) allowed for "stair-step" flow limits as follows:

- o 450 gallons per minute effective 9/91. (M-17-17A)
- o 750 gallons per minute during the Stabilization Run. (M-17-17A)
- o 250 gallons per minute effective 12/92 (M-17-17D). Date was set to allow time for completion of the UO<sub>3</sub> Plant Stabilization Run.

Due to the delay in the UO<sub>3</sub> Plant Stabilization Run, the milestone for achieving the final flow rate reduction needs to be modified to allow the temporary UO<sub>3</sub> Plant Wastewater flow rate increase as was allowed under Milestone M-17-17A. The 12/92 date specified for implementing the final flow restriction for the UO<sub>3</sub>/U Plant wastewater to 250 gallons per minute (i.e., Milestone M-17-17D) was set with an expectation that the UO<sub>3</sub>/U Plant Stabilization Run would be completed before that date. The discharge to the 216-U-14 Ditch has been limited to 250 gallons per minute, averaged over the calendar month, since September 1991. Therefore, the goals identified in Interim Milestones M-17-17A (450 gallons per minute by September 1991) and M-17-17D (250 gallons per minute by December 1992) have been met.

However, the UO<sub>3</sub>/U Plant Stabilization Run was delayed because the 216-U-17 Crib could not receive UO<sub>3</sub> Plant Process Condensate discharges until August 1992. Three years of 216-U-17 Crib shutdown resulted in stormwater accumulation in the plant's uranyl nitrate hexahydrate (UNH) feed tanks. The stored rainwater accumulation must be processed to empty the feed tanks prior to receiving feed for the Stabilization Run startup. Due to the time required for the stored rainwater processing, the readiness review process, and Ecology approval of the UO<sub>3</sub> Plant Wastewater Sampling and Analysis Plan, the UO<sub>3</sub>/U Plant Stabilization Run is not expected to take place by December 1992. The rainwater processing was concluded on November 16, 1992. The startup maintenance activities and readiness review are ongoing to support the Stabilization Run. The Stabilization Run is expected to last approximately eight weeks.

During the time period prior to the resumption of discharge to the 216-U-17 Crib, and up to present, the flow rate to the 216-U-14 Ditch averaged less than 250 gallons per minute, well below the 450 gallons per minute flow rate limit imposed by M-17-17A. The flow rate will increase for pre-campaign activities, but will be maintained at less than or equal to the 450 gallons per minute flow limit specified and will further increase during the Stabilization Run to less than or equal to 750 gallons per minute. At the completion of the Stabilization Run, the flow rate will decrease to less than 250 gallons per minute by the end of the calendar month following the completion of the Stabilization Run.

The total volume of wastewater that will be discharged to the 216-U-14 Ditch for the period between 1991 (the original anticipated startup time frame) and 1995 will not increase as a result of this change to Milestone M-17-17A and M-17-17D.

The modification in the wording of Interim Milestone M-17-17A that specifies the flow rate recording system, will be clarified by this change to specify the use of a flow volume totalizer for determining the monthly flow rate instead of an instantaneous flow rate strip chart. The use of the volume totalizer will provide for a more accurate flow averaging and is consistent with UO<sub>3</sub> Plant Wastewater Sampling and Analysis Plan requirements for flow measurement.

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DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE COMPLIANCE BY )  
United States Department of Energy )  
with Section 90.48 RCW and the )  
Rules and Regulations of the )  
Department of Ecology )

MODIFICATION OF  
CONSENT ORDER  
No. DE 91NM-177

To: United States Department of Energy  
Richland Field Office  
P.O. Box 550  
Richland, WA 99352

I. MODIFICATION

In accordance with Section 1.V, Page 3, of the above-referenced Consent Order, the parties agree to a modification which will revise a portion of the following section:

Section 8: Interim Operating Restrictions and Impact Assessments,  
Table 6, UO<sub>3</sub>/U Plant Waste Water/ 216-U-14 Ditch

~~Limit UO<sub>3</sub>/U Plant Wastewater effluent flow to less than or equal to 250 gallons per minute, averaged over the calendar month by 12/92.~~  
Except as specified below, limit discharge of the UO<sub>3</sub>/U Plant Wastewater to the 216-U-14 Ditch to less than or equal to 250 gallons per minute, averaged over the calendar month. During pre-campaign processing, limit discharge of the wastewater to the ditch to less than or equal to 450 gallons per minute averaged over the calendar month. During the Stabilization Run, limit the discharge of wastewater to the ditch to less than or equal to 750 gallons per minute, averaged over the calendar month. Limit the flow rate to less than or equal to 250 gallons per minute, averaged over the calendar month, by the end of the calendar month following the Stabilization Run completion. The pre-campaign processing is expected to last approximately four weeks, the Stabilization Run is expected to last approximately eight weeks. EPA and Ecology will be notified in writing at least five working days prior to initiating the flow rate increase to 450 gpm.

Measurement of discharge flow rate shall be by ~~an instantaneous flow recorder system~~ a flow measurement system which provides instantaneous flow rate recording and a flow totalizer.

All other terms and conditions contained in the Consent Order remain in full force and effect.

Dated this 21<sup>st</sup> day of January, 1993, at Kennewick, Washington.

Dave Nylander  
Dave Nylander  
Office Manager  
Washington State Department of Ecology

John D. Wagoner  
John D. Wagoner, Manager  
U.S. Department of Energy  
Richland Field Office

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# CORRESPONDENCE DISTRIBUTION COVERSHEET

Author: S. H. Wisness, RL      Addressee: A. Boyd, EPA      Correspondence No.: Incoming: 9301603

Subject: TRANSMITTAL OF SIGNED CHANGE REQUEST (M-17-92-04)

## INTERNAL DISTRIBUTION

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		R. W. Oldham	H6-25	X
		T. B. Veneziano, Assignee	L4-92	X
		EDMC	H6-08	X



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