Change Number	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date
M-80-94-01		1/13/95

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Class of Change

[X] I - Signatories [ ] II - Project Manager [ ] III - Unit Manager

Change Title

Establish milestones and target dates for PUREX and UO_3 Facility Transition, Milestone Series M-80.

Description/Justification of Change

The PUREX/UO_3 transition project has been developed to establish a safe and environmentally secure configuration for the PUREX and UO_3 Plants, to achieve necessary preclosure actions, and to transition the facilities to the surveillance and maintenance (S&M) Phase. The transition project will remove, reduce, and/or stabilize all major radioactive and chemical sources at these plants. Completion of transition activities will result in reduced risk to plant workers, the public, and the environment. After transition is completed, these plants will continue to be routinely monitored throughout the S&M period until decommissioning and closure is completed.

(See Attachment)

Impact of Change

This change request establishes a new major milestone, interim milestones, and target dates for the transition of the PUREX and UO_3 Plants.

Affected Documents

Hanford Federal Facility Agreement and Consent Order, Appendix D

Approvals — This change form approved by Amendment Five to the Hanford Federal Facility Agreement and Consent Order executed by the signatories on July 28, 1995.

DOE J. D. Wagoner	Date	___ Approved	___ Disapproved
EPA C. Clarke	Date	___ Approved	___ Disapproved
Ecology M. Riveland	Date	___ Approved	___ Disapproved

Milestones and Target Dates for PUREX and UO_3 Facility Transition. Continued

The decommissioning and closure process for PUREX/UO_3 will be accomplished in three phases: Phase I (Facility Transition, including TSD unit preclosure actions), Phase II (Surveillance and Maintenance [S&M]) and Phase III (TSD unit closure and facility disposition). Major and interim milestones and target dates are established to address Phase I (i.e., facility transition) of the PUREX and UO_3 Plants. At the PUREX Plant the goal of Phase I is to reduce risks to human health and the environment by removing waste liquids and spent fuel, reducing utilities to the building, and consolidating ventilation systems. Thus, Phase I will remove the need for routine personnel entry into the building and leave the facility in an environmentally sound, safe and stable configuration. Transition of the UO_3 Plant is currently underway as well. At the UO_3 Plant, activities include the removal of nitric acid solutions and residual uranium oxide powder, and flushing of piping and vessels. At the completion of Phase I, transition is complete, necessary preclosure activities have been completed and/or approved, and the S&M Phase begins. When transition is completed, it is expected that funds will be available for higher priority site environmental management activities.

During transition, interim status tanks and vessels will be emptied and/or flushed until the flush solution no longer designates as a dangerous waste. Final flush solutions will be sampled and analyzed in accordance with "Data Quality Objectives for PUREX Deactivation Flushing," WHC-SD-EN-TI-283, as approved by Ecology.

Tank inspection requirements will not be enforced on tanks and vessels that have been emptied or flushed so that flush solution no longer designates as dangerous waste. Transition activities will minimize potential threats to human health and the environment posed by wastes previously managed at the PUREX/UO_3 facilities. A Preclosure Work Plan for treatment, storage, or disposal (TSD) units within the PUREX Plant will be developed and submitted to Ecology for approval. The PUREX S&M Plan along with proposed PUREX end point criteria will be submitted as part of this preclosure work plan covering TSD units and hazardous substances that are proposed to remain at the facility. Closure of PUREX TSD units will be achieved in conjunction with facility disposition.

Throughout the PUREX/UO_3 transition project, opportunities to implement waste minimization will be reviewed and implemented to the extent practicable. Waste minimization activities that have been or are now planned as part of this project include the recycling of bulk commercial chemical products, use of the F11 concentrator to reduce the volume of waste being transferred to the Double-Shell Tanks, and minimizing the volume of liquid required for dilution of the plutonium and uranium solutions in Tanks D5 and E6 by using decontamination fluids instead of process water. These activities and others that may be identified will reduce the total volume of waste generated by approximately one million gallons that would otherwise be discharged to the DSTs. The volume of cooling water and steam condensate discharged to the ground will also be minimized and will be released in accordance with the limitations established pursuant to Consent Order No. DE-91NM-177.

The PUREX/UO_3 transition project has been developed with an eye to ensuring public participation vital to the success of this project ,and in accordance with Section 10.0 of the TPA, will be achieved.

The milestones and target dates contained in this change package highlight key activities associated with deactivation of areas within the PUREX and UO_3 plants. A more complete description of these activities is contained within the PUREX/UO_3 Deactivation Project Management Plan, # WHC-SP-1011.

Establish the following milestones and target dates:

M-80-00	Complete PUREX and UO_3 Plant Facility Transition Phase and initiate the Surveillance and Maintenance Phase. Completion of this major milestone includes the following key elements: (1) completion of all activities necessary to achieve end point criteria for placing the PUREX/UO_3 facilities in a safe and stable S&M mode, and (2) completion of all activities described in the following interim milestones and target actions.	July 1998
	UO_3 TRANSITION	
M-80-00-T01	Issue USDOE approved End Point Criteria for the UO_3 Plant. End point criteria necessary to place the UO_3 facility in a safe and stable configuration will be developed, approved by USDOE, and provided to the EPA and Ecology for review.	December 1994
M-80-00-T02	Complete all UO_3 Plant Transition Activities and Initiate S&M Phase. Transition activities include decontaminating and removing residual uranium oxide powder to the extent possible using routine techniques. These activities will be conducted in accordance with USDOE approved UO_3 Plant end point criteria. Hazardous substances remaining in the UO_3 Plant upon completion of transition will be documented, and a letter report detailing their location, amount, state, and stability provided to EPA and Ecology.	June 1995
	PUREX TRANSITION	
M-80-00-T03	Submit options and recommendations for final management of Tank 40 organic material to EPA and/or Ecology in accordance with their respective authorities.	June 1995
M-80-00-T04	Complete removal of concentrated (recovered) 203-A Nitric Acid at PUREX. Includes completion of the National Environmental Policy Act (NEPA) process.	June 1996
M-80-00-T05	Complete implementation of selected alternative for management of Spent Fuel from PUREX. Includes completion of the National Environmental Policy Act (NEPA) process. Removal of spent fuel would include retrieving approximately 260 kilograms of N Reactor fuel from the PUREX A, B, and C Cells, removing four buckets of single-pass reactor fuel from the east end of the PUREX canyon and flushing the slug storage basin.	December 1996

M-80-00-T06	**Complete Deactivation of the PUREX Plant 211-A Area.**	**April 1997**
	Deactivation of the 211-A Area includes, but is not limited to, removing the chemical inventory, flushing tanks, removing tank heels, disposing of resins contained within isolated demineralizers, isolating utilities, and decontaminating/stabilizing surfaces contaminated with hazardous materials, as necessary. This target date does not include Tank-40 (see M-80-00-T03).	
M-80-00-T07	**Complete Deactivation of the PUREX Plant Sample Gallery.**	**June 1997**
	Deactivation of the Sample Gallery includes, but is not limited to, flushing headers and high radiation samplers that may pose a contamination or dose problem, decontaminating and/or stabilizing hoods containing significant quantities of special nuclear material, and decontaminating/stabilizing and/or removing hood duct work.	
M-80-01	**Complete Deactivation of PUREX Plant R-Cell.**	**April 1995**
	Deactivation of R-Cell includes, but is not limited to, removing organic solvent (TBP/NPH), flushing vessels, and sealing R cell cover blocks.	
M-80-02	**Submit the end point criteria and surveillance and maintenance plan in support of the PUREX Preclosure Work Plan.**	**July 1996**
	The PUREX Preclosure Work Plan submittal is covered under interim milestone M-20-24A.	
M-80-02-T01	**Submit proposed End Point Criteria for Transition of PUREX.**	**June 1995**
	A document identifying proposed end point criteria necessary to place the PUREX Plant in an environmentally sound, safe and stable configuration will be submitted to Ecology and EPA for review and approval for TSD units, and for the hazardous substances proposed to remain at the facility. When approved, these criteria, and the S&M Plan will become part of the preclosure work plan as applicable.	
M-80-02-T02	**Submit PUREX Surveillance and Maintenance Plan.**	**May 1996**
	A plan, including a list of hazardous substances/ dangerous wastes which are planned to remain at the PUREX facility following transition and the S&M activities to occur after transition and prior to initiating final facility disposition activities, will be provided to Ecology and EPA for their review and approval as a part of the preclosure work plan for TSD units, and for hazardous substances proposed to remain at the PUREX facility.	

M-80-03	**Remove Process Waste Solutions from Tanks D5 and E6.** Waste solutions in Tanks D5 and E6 will be removed from the PUREX process vessels and transferred to Tank Farms. In order to optimize waste minimization, decontamination solutions will be used instead of process water to dilute these solutions prior to shipment to Tank Farms.	January 1997
M-80-04	**Complete Deactivation of the PUREX Plant U-Cell/Fractionator.** Deactivation of the U-Cell/Fractionator includes, but is not limited to, removing recovered nitric acid, flushing vessels, and sealing U cell cover blocks.	April 1997
M-80-05	**Complete Deactivation of the PUREX Plant Aqueous Makeup Area.** Deactivation of the Aqueous Makeup Area includes, but is not limited to, removing the chemical inventory and flushing or emptying tanks and supply headers to canyon vessels.	June 1997
M-80-06	**Complete Deactivation of the PUREX Plant Canyon.** Deactivation of the PUREX canyon includes, but is not limited to, isolating canyon piping to external facility interfaces (e.g., Tank Farms, 216-B-3 Pond, cribs, etc.), removing spent reactor fuel, and emptying and flushing of process vessels. The flush solutions from final flushing activities will be sampled to verify that they do not designate as dangerous waste. Sampling and analysis of the final flush solutions will be performed in accordance with the data quality objectives approved in pertinent part by Ecology.	July 1997
M-80-07	**Complete Deactivation of the PUREX Plant 203-A Area.** Deactivation of the 203-A Area includes, but is not limited to, emptying and flushing tank systems, and decontaminating/stabilizing contaminated surfaces, as necessary.	April 1998
M-80-08	**Document Hazardous Substances/Dangerous Wastes Remaining Within the PUREX Plant.** Hazardous substances/dangerous wastes will remain within the PUREX Plant upon completion of Phase I activities. Hazardous substances include, but are not limited to: (1) non-dangerous waste components that are highly radioactive, (2) part of the plant structure (e.g., lead shielding in walls), and (3) intact pieces of equipment (e.g., silver reactors and cadmium moderators). The list prepared in milestone M-80-02-T02 will be updated to include any materials identified during deactivation activities not identified in the initial submittal.	July 1998

IT IS SO AGREED:

Each undersigned representative of a Party certifies that he or she is fully authorized to enter into this Agreement and Action Plan and to legally bind such Party to this Agreement and Action Plan. These change requests and amendments shall be effective upon the date on which this fifth amendment agreement is signed by the Parties. Except as amended herein, the existing provisions of the Agreement shall remain in full force and effect.

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Chuck Clarke — Date: 7/26/95
Regional Administrator
Region 10
U.S. Environmental Protection Agency

FOR THE UNITED STATES DEPARTMENT OF ENERGY:

for John Wagoner — Date: 7/25/95
Manager
U.S. Department of Energy
Richland Operations Office

FOR THE WASHINGTON STATE DEPARTMENT OF ECOLOGY:

Mary Riveland — Date: 7/22/95
Director
State of Washington
Department of Ecology