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Department of Energy

9404280

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JUN 27 1994



PPO-94-030

Ms. Julie M. Atwood
Assistant Program Manager, Nuclear Waste Program
State of Washington Department of Ecology
P.O. Box 1388
Richland, Washington

Dear Ms. Atwood

DEACTIVATION AND REGULATORY COMPLIANCE APPROACH FOR THE PLUTONIUM URANIUM EXTRACTION (PUREX) FACILITY AND THE URANIUM TRIOXIDE FACILITY (UO₃)

The U.S. Department of Energy, Richland Operations Office (RL), the U.S. Environmental Protection Agency, the State of Washington Department of Ecology (Ecology), and Westinghouse Hanford Company (WHC) have been involved in discussions concerning the regulatory compliance approach for the deactivation of the PUREX Facility and UO₃ Facility. RL agrees to submit a modified Part A Permit Application for PUREX, including selected vessels consistent with criteria established during discussions.

A baseline compliance assessment of PUREX and UO₃ facilities was performed by Ecology on April 6, 20, 27, and May 6, 1994. An Ecology letter, Ms. L. E. Russell to E. J. Senat, RL, and D. G. Hamrick, WHC, dated May 17, 1994, documents the assessment. RL has received a copy of the addendum to Ms. Russell's letter, dated May 18, 1994, and we agree that tank integrity assessments will not be required in light of Milestone M-32. Responses to the Findings, Observations, and Requirements noted during the assessment are enclosed. In the near future, RL will transmit a letter to Ecology, listing the vessels to be included in the modified Part A Permit Application.

Should you have any questions please contact S. H. Wisness (376-6798) or J. E. Mecca (376-7471).

Sincerely,

Steven H. Wisness, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy



J. E. Mecca, Director
Operations and Transition Division

OTD:JEM

Enclosure

See Attached List for Distribution

Distribution List for Letter Dated JUN 27 1994

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RESPONSES TO FINDINGS, OBSERVATIONS, AND REQUIREMENTS CONTAINED IN THE
STATE OF WASHINGTON DEPARTMENT OF ECOLOGY'S MAY 17, 1994 LETTER

FINDING #1

"Surveillances were not conducted in accordance with existing procedure. (Plant Operating Procedure, Perform PUREX Routine Surveillance for OSR Compliance During Standby, [PO-040-305, issued November 29, 1993])."

RL RESPONSE: Surveillances were conducted in accordance with existing procedures. On January 25, 1994, Procedure Change Authorizations (PCA) PO-02605 and PO-02604 were issued against Procedures PO-040-305, Revision D-8, and PO-040-307, Revision A-7, respectively. The inspection data sheets used for January 31, 1994, were consistent with the procedures and PCAs in effect at the time of use.

Estimated Completion Date: N/A

FINDING #2

"Surveillances were not conducted in accordance with existing procedure. (Plant Operating Procedure, Perform PUREX Surveillance for OSR Compliance During Standby, PO-040-307, issued April 16, 1993)."

RL RESPONSE: See Response #1.

Estimated Completion Date: N/A

FINDING #3

"The PUREX Staffing/Training Plan, as provided to Ecology, does not include the name of the employee filling each job."

RL RESPONSE: The Plutonium-Uranium Extraction Facility (PUREX) Staffing/Training Plan is presently being revised. The name of the employee filling the job will be either incorporated into the plan or identified by referencing an appendix.

Estimated Completion Date: September 1, 1994

FINDING #4

"The PUREX/UO₃ Organizational Directory does not mirror the organizational structure presented in the PUREX Staffing/Training Plan, e.g., organization codes are inconsistent or missing, and organization titles are inconsistent."

RL RESPONSE: The PUREX Facility has recently undergone a massive reorganization. One reason for revising the Training Plan (see Response #3) is to reflect the organizational changes. The revised Training Plan will mirror the PUREX Organization.

Estimated Completion Date: September 1, 1994

FINDING #5

"Employees have not received training as required under the PUREX Staffing/Training Plan."

RL RESPONSE: The PUREX Staffing/Training Plan was developed to incorporate all potentially required training for each position and not exclusively dangerous waste required training. The revised Training Plan will specify the positions requiring dangerous waste training and course requirements. Personnel will be trained in accordance with the Training Plan.

Estimated Completion Date: October 1, 1994

FINDING #6

"The UO₃ Facility Staffing/Training Plan, as provided to Ecology, does not include the name of the employee filling each job."

RL RESPONSE: The Uranium Trioxide Facility (UO₃) Staffing/Training Plan is presently being revised. The name of the employee filling the job will be either incorporated into the plan or identified by referencing an appendix.

Estimated Completion Date: September 1, 1994

FINDING #7

"RCRA protocol samples are not being taken in accordance with Table 10, PUREX Plant Sample Parameter List, in the PUREX WAP."

RL RESPONSE: Resource Conservation and Recovery Act (RCRA) protocol samples were taken but the volatile organic analyses (VOA) were not performed as identified in Table 10. Samples from PUREX cannot be sent offsite due to high radiation levels. Therefore, the samples have to be analyzed at the 222-S Laboratory. The 222-S Laboratory did not receive certification to run VOAs until May 5, 1994. Now that the laboratory has received certification to perform VOA analyses, VOAs will be requested.

The two samples where analyses were missing for nitrite, nitrate, pH and plutonium were taken around the time the waste analysis plan (WAP) was being issued and there was some confusion about which analytes required analysis in the RCRA sample. The confusion was clarified when the plan was issued and the required analyses have been identified on the sample analysis requests.

With the certification of the 222-S Laboratory to perform VOA analyses and the WAP issued, no additional action is required except the on-going action to take the samples and review the data. Actions to clarify the PUREX WAP are now complete.

Estimated Completion Date: N/A

OBSERVATION #1

"The Emergency Plan for UO₃ Facility should be updated to include reference to the Hanford Facility Contingency Plan, issued October 1993."

RL RESPONSE: The Building Emergency Plan for the UO₃ Facility will be updated to include reference to the Hanford Facility Contingency Plan.

Estimated Completion Date: July 1, 1994

OBSERVATION #2

"The Emergency Plan for PUREX facility, Appendix 1, 'Hazardous Waste Location and Emergency Response Matrix,' has misentered data in the 'Credible Event' category."

RL RESPONSE: The misinformation in the Appendix 1, "Hazardous Waste Location and Emergency Response Matrix" will be corrected.

Estimated Completion Date: July 1, 1994

OBSERVATION #3

"Procedure, WHC-CM-5-9, Section 4.23, Management of Waste Stored on the PUREX Canyon Waste Pile or in the PUREX Storage Tunnels, needs to be revised to exclude waste pile management."

RL RESPONSE: The need to modify procedure WHC-CM-5-9, Section 4.23 had previously been recognized and the modification was in progress at the time of the inspection. The old "waste pile" storage unit designation will be replaced with "containment building" storage in accordance with the requirements of 40 Code of Federal Regulations, Section 265, Subpart DD. The revised procedure will comply with the PUREX Canyon Mixed Waste Storage Plan, WHC-SD-CP-PLN-021.

Estimated Completion Date: July 15, 1994

OBSERVATION #4

"The title for procedure WHC-CM-5-9, Section 4.25, 'Inspection of Containerized Dangerous Waste Accumulation Areas,' should be changed, e.g., 'Inspection of Containerized Dangerous Waste Accumulation Areas and Interim Status Treatment/Storage Tank Systems.' ('Accumulation areas' refers to container storage under WAC 173-303-200 requirements, not interim status TSD requirements for waste storage tanks)."

RL RESPONSE: The title of procedure WHC-CM-5-9, Section 4.25, "Inspection of Containerized Dangerous Waste Accumulation Areas," will remain the same. However, the text will be changed to remove the tank inspection requirements from this procedure. The tank inspection section will be added to PUREX Operating Procedure PO-040-305, "Perform PUREX Routine Surveillance for OSR Compliance During Standby."

Estimated Completion Date: June 30, 1994

OBSERVATION # 5

"RCRA protocol samples are not being taken on a quarterly basis as required under the PUREX WAP."

RL RESPONSE: No waste batches were transferred to Tank Farms from Tanks F18, U3 or U4 during the first quarter of 1994. However, the PUREX WAP states, "RCRA protocol samples are currently taken from these tanks on a quarterly basis." The WAP will be modified to state, "RCRA protocol samples are currently taken from Tanks F18 and U3 or U4 on a quarterly basis when waste is transferred to Tanks Farms during the quarter."

The RCRA protocol sample required during the third quarter of 1993 was missed. The specific procedures to transfer the waste to Tank Farms will be modified to ensure the RCRA sample has been taken.

Modification of the WAP to reflect that samples will only be taken during quarters when waste is transferred and modification of the transfer procedures to ensure the sample has been taken will constitute closure of this observation.

Estimated Completion Date: July 22, 1994

REQUIREMENT #1: WAC 173-303-300 General waste analysis

"USDOE/WHC need to perform waste analysis protocols as outlined in the PUREX WAP (WHC-SD-WM-ANAL-020, Rev. 0). (Finding 7)"

RL RESPONSE: See response to Finding 7.

Estimated Completion Date: See response to Finding 7.

REQUIREMENT #2: WAC 173-303-300 General waste analysis

"USDOE/WHC will need to revise the PUREX WAP to include the additional vessels deemed applicable for inclusion into the existing PUREX Part A."

RL RESPONSE: The PUREX WAP will be revised to include additional vessels deemed applicable for inclusion into the existing PUREX Part A.

Estimated Completion Date: October 31, 1994

REQUIREMENT #3: WAC 173-303-320 General inspection

"USDOE/WHC need to perform inspection and surveillance protocols as outlined in inspection plans (WHC-CM-5-9, Section 4.25, Rev. 4; PO-040-305, PO-040-307). (Findings 1,2)"

RL RESPONSE: See response to Findings 1 and 2.

Estimated Completion Date: See response to Findings 1 and 2.

REQUIREMENT #4: WAC 173-303-320 General inspection

"USDOE/WHC will need to revise WHC-CM-5-9, Section 4.25, Inspection of Containerized Dangerous Waste Accumulation Areas, to include the additional vessels deemed applicable for inclusion into the existing PUREX Part A. The seven tanks (E5, F15, F16, F18, G7, U3, U4) and one concentrator (E-F11) currently under the existing Part A permit are the only tank systems identified for inspection in this procedure."

RL RESPONSE: See response to Observation #4.

Estimated Completion Date: October 31, 1994

REQUIREMENT #5: WAC 173-303-320 General inspection

"USDOE/WHC will need to revise the surveillance checklists (PO-040-305, PO-040-307) to include any additional vessels deemed applicable for inclusion into the existing PUREX Part A that are not already on a surveillance schedule."

RL RESPONSE: The appropriate surveillance checklists will be revised to include the additional vessels deemed applicable for inclusion into the existing PUREX Part A.

Estimated Completion Date: October 31, 1994

REQUIREMENT #6: WAC 173-303-330 Personnel training

"USDOE/WHC need to revise the PUREX and UO₃ Staffing/Training Plans to either reference the Organizational Directory, or include the name of the employee filling each job. USDOE/WHC need to review and revise the Organizational Directory to assure coordination with the Staffing/Training Plans. (Findings 3, 4, 6)"

RL RESPONSE: See response to Findings 3, 4, and 6.

Estimated Completion Date: See response to Findings 3, 4, and 6.

REQUIREMENT #7: WAC 173-303-330 Personnel training

"USDOE/WHC need to assure training is provided in accordance with the PUREX Staffing/Training Plan. (Finding 5)"

RL RESPONSE: See response to Finding 5.

Estimated Completion Date: See response to Finding 5.

REQUIREMENT #8: WAC 173-303-350 Contingency plan and emergency procedures

"USDOE/WHC will need to revise the emergency plan for PUREX, e.g., Attachment I to the emergency plan, to include additional vessels deemed applicable for inclusion into the existing PUREX Part A."

RL RESPONSE: The emergency plan for PUREX will be revised to include the additional vessels deemed applicable for inclusion into the existing PUREX Part A.

Estimated Completion Date: October 31, 1994

REQUIREMENT #9: WAC 173-303-380 Facility recordkeeping

"See WAC 173-303-300 and -320 above."

RL RESPONSE: See responses to Requirements 1, 2, 3, 4, and 5.

Estimated Completion Date: See responses to Requirements 1, 2, 3, 4, and 5.

REQUIREMENT #10: WAC 173-303-640 Tank systems

"USDOE/WHC will need to label containers to include WAC 173-303-630(3) and - 640(5)(d) requirements for any vessels deemed applicable for inclusion into a Part A Permit Application for interim status storage. Vessels may be exempted from labeling requirements, on a case-by-case basis, e.g., location (inside the canyon), upon written approval from Ecology. USDOE/WHC will need to submit a written request to Ecology identifying tank number and reason why WAC requirements cannot be met.

RL RESPONSE: Vessels deemed applicable for inclusion into the modified PUREX Part A Permit, which are not exempted from labelling requirements, will be labelled in accordance with WAC 173-303-640(5)(d).

Estimated Completion Date: October 31, 1994

REQUIREMENT #11: 40 CFR 265.191 Assessment of existing tank system's integrity.

"USDOE/WHC will need to perform a tank integrity assessment to satisfy Chapter 173-303 and 40 CFR requirements for tank G7, concentrator E-F11, and any other treatment and/or storage tanks that do not meet secondary containment requirements. Vessels may be exempted from integrity assessment requirements, on a case-by-case basis, upon written approval from Ecology. USDOE/WHC will need to submit a written request to Ecology identifying vessel number and reason why WAC and 40 CFR requirements either cannot be met or should not be required, e.g., date waste expected to be removed from vessel, etc."

RL RESPONSE: In light of Milestone M-32, tank integrity assessments will not be required. See the May 18, 1994, addendum to Ms. Russell's May 17, 1994, letter to Mr. E. J. Senat, RL, and Mr. D. G. Hamrick, WHC.

Estimated Completion Date: N/A

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Subject: DEACTIVATION AND REGULATORY COMPLIANCE APPROACH FOR THE PLUTONIUM URANIUM EXTRACTION (PUREX) FACILITY AND THE URANIUM TRIOXIDE FACILITY (UO₃)

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