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STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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November 30, 2018

18-NWP-189

Doug S. Shoop, Manager  
Richland Operations Office  
United States Department of Energy  
PO Box 550, MSIN: H5-20  
Richland, Washington 99352

Re: 15-Day Report for the October 26, 2018, Observance of Vapor Emission from PUREX Storage Tunnel #2

Reference: Letter 19-AMRP-0022, dated November 7, 2018; "15-Day Report for the October 26, 2018 Observance of Vapor Emission from PUREX Storage Tunnel #2."

Dear Doug S. Shoop:

The Department of Ecology (Ecology) received Letter 19-AMRP-0022 (Reference) from the United States Department of Energy Richland Operations (USDOE-RL) on November 7, 2018. The letter included the 15-Day Report for the October 26, 2018, Observance of Vapor Emission from PUREX Storage Tunnel #2 in accordance with WAC 173-303-360(2)(k).

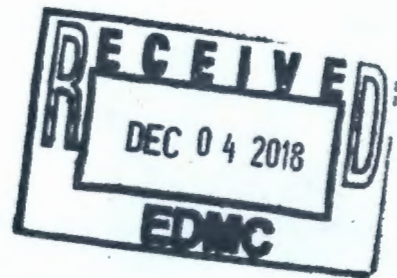
After reviewing the referenced report, Ecology has questions regarding the October 26, 2018, event. Our questions are enclosed in the Review Comment Record document. We request USDOE-RL provide their responses to our comments by December 29, 2018.

If there are any questions, please contact Brigitte Weese, PUREX Unit Lead, at (509) 372-7936 or [brigitte.weese@ecy.wa.gov](mailto:brigitte.weese@ecy.wa.gov), or Stephanie Schleif, Facility Transition Project Manager, at (509) 372-7929 or [stephanie.schleif@ecy.wa.gov](mailto:stephanie.schleif@ecy.wa.gov).

Sincerely,

Ron Skinnarland  
Waste Management Section Manager  
Nuclear Waste Program

bw/am  
enclosure



cc: See page 2



4

Doug S. Shoop  
November 30, 2018  
Page 2 of 2

18-NWP-189

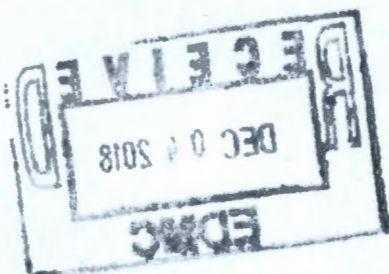
cc electronic w/enc:

Dave Bartus, EPA  
Dave Einan, EPA  
Duane Carter, USDOE  
Al Farabee, USDOE  
William Hamel, USDOE  
Darin Corriell, CHPRC  
Laura Cusack, CHPRC  
Moses Jaraysi, CHPRC  
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Ron Skinnarland, Ecology  
Alexandra Smith, Ecology  
Brigitte Weese, Ecology  
Environmental Portal  
Hanford Facility Operating Record  
CHPRC Correspondence Control  
MSA Correspondence Control  
USDOE-RL Correspondence Control

cc w/enc:

Matt Johnson, CTUIR  
Jack Bell, NPT  
Laurene Contreras, YN  
Alyssa Buck, Wanapum  
Susan Leckband, HAB  
Hanford Administrative Record  
NWP Central File





# Review Comment Record

## Washington State Department of Ecology Nuclear Waste Program

Date: November 20, 2018

Page 2 of 2

Item No.	Pg. # Sec. # Para./Sent.	Comment or Question	Modification Needed	Basis/Justification	U.S.D.O.E. Response	Ecology Response	Open/Close	Reviewer Initials
3	Section (ix) Description of the corrective action taken to prevent reoccurrence of the incident.	<p>“Corrective actions included verifying the leak pathways from the water door housing and sealing the confirmed and potential leak pathways from the structure. The retired ventilation system on the south side of PUREX Storage Tunnel #2 was also evaluated for potential leak pathways and those areas that exhibited potential to provide leak pathways were sealed. Once all potential leak pathways were identified and sealed, stabilization activities continued on October 31, 2018.”</p> <p>The report does not explain the following:</p> <ol style="list-style-type: none"> <li>1. Where the sealed pathways were located that exhibited potential to provide leak pathways.</li> <li>2. How these areas were evaluated.</li> <li>3. The type of sealant used.</li> <li>4. How long the sealant is expected to work.</li> <li>5. Will the tunnel continue to be evaluated for degrading sealant until grouting is completed.</li> </ol>	<p>Provide an explanation on the following:</p> <ol style="list-style-type: none"> <li>1. Where were the sealed pathways located that exhibited potential to provide leak pathways?</li> <li>2. How were these areas evaluated?</li> <li>3. What was the type of sealant used?</li> <li>4. How long is the sealant expected to work?</li> <li>5. Will the tunnel continue to be evaluated for degrading sealant until grouting is completed?</li> </ol> <p><i>Note: The 15-Day Report does not need to be updated to address this comment.</i></p>					



# Review Comment Record

## Washington State Department of Ecology Nuclear Waste Program

Date: November 20, 2018

Page 1 of 2

**Document Title(s)/Number(s)**

PUREX Tunnels 15 Day Report: Letter 19-AMRP-0022

**Document Manager**

**Project Manager**

**Facility Site ID**

**Cleanup Site ID**

Brigitte Weese

(509) 372-7936

Stephanie Schleif

(509) 372-7929

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WA7890008967

Item No.	Pg. # Sec. # Para./Sent.	Comment or Question	Modification Needed	Basis/Justification	U.S.D.O.E. Response	Ecology Response	Open/Close	Reviewer Initials
1	Section (iv) Name and Quantity of Material Involved	<p>“There was no known release of mixed waste during the incident. The contingency plan was implemented as a precaution early in the event before the incident could be fully evaluated.”</p> <p>The report does not explain how USDOE confirmed that there was no release of mixed waste.</p>	<p>Provide an explanation on how USDOE confirmed that there was no release of mixed waste.</p> <p><i>Note: The 15-Day Report does not need to be updated to address this comment.</i></p>					
2	Section (viii) Cause of the Incident	<p>“Lights and cameras placed inside the tunnel to support stabilization efforts showed vapor in the tunnel, resulting from the curing of the engineered grout recently placed in the tunnel to stabilize it. The curing process generates heat and releases moisture. When the warm moist air left the tunnel and interacted with the cool early morning atmosphere, vapor was visible. The vapor left the tunnel from an opening in the structure that houses equipment to open a large door used to access the tunnel for placement of railcars containing contaminated equipment inside the tunnel. The opening in the structure had been previously sealed and apparently the integrity of the sealing had degraded over time. The structure is original to the tunnel, which was completed in 1964. Cars were last placed in the tunnel in 1996.”</p> <p>The report does not explain the following:</p> <ol style="list-style-type: none"> <li>Where the opening was located on the structure that houses equipment to open the (unfilled) water-filled door.</li> <li>How large the opening was.</li> </ol>	<p>Provide an explanation on the following:</p> <ol style="list-style-type: none"> <li>Where was the opening located on the structure that houses equipment to open the (unfilled) water-filled door?</li> <li>How large was the opening?</li> </ol> <p><i>Note: The 15-Day Report does not need to be updated to address this comment.</i></p>					