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

19-AMRP-0043

DEC 19 2018

Ms. Alexandra K. Smith, Program Manager
Nuclear Waste Program
Washington State Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99354

Dear Ms. Smith:

RESPONSE TO WASHINGTON STATE DEPARTMENT OF ECOLOGY'S REVIEW COMMENT RECORD (RCR) REQUESTING INFORMATION CONCERNING THE 15-DAY REPORT FOR THE OCTOBER 26, 2018, OBSERVANCE OF VAPOR EMISSION FROM PUREX STORAGE TUNNEL #2

In reference to the Washington State Department of Ecology's (Ecology) letter (18-NWP-189) dated November 30, 2018, the U.S. Department of Energy Richland Operations Office is transmitting responses to Ecology's RCR requesting information on the 15-day report submitted in accordance with Washington Administrative Code 173-303-360(2)(k), summarizing the observance of vapor emission from PUREX Storage Tunnel #2.

If you have any questions, please contact me, or your staff may contact Bill Hamel, Assistant Manager for the River and Plateau, on (509) 373-9971.

Sincerely,

Doug S. Shoop
Manager

AMRP:DBC

Attachment

cc: See page 2

RECEIVED
DEC 27 2018
EDMC

cc w/attach:
D. B. Bartus, EPA
J. Bell, NPT
R. Buck, Wanapum
K. A. Conaway, Ecology
D. R. Corriell, CHPRC
L. J. Cusack, CHPRC
D. R. Einan, EPA
S. Hudson, HAB
M. N. Jaraysi, CHPRC
M. Johnson, CTUIR
K. Niles, ODOE
J. B. Price, Ecology
D. Rowland, YN
S. Schleif, Ecology
C. J. Simiele, CHPRC
E. R. Skinnarland, Ecology
B. L. Weese, Ecology
Administrative Record, TSD: S-2-1
Ecology NWP Library
Environmental Portal
HF Operating Record (J. K. Perry, MSA)

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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	OUG – 2, 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	"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." The report does not explain how USDOE confirmed that there was no release of mixed waste.	Provide an explanation on how USDOE confirmed that there was no release of mixed waste. *Note: The 15-Day Report does not need to be updated to address this comment.*		Continuous air monitoring is performed during grouting operations and no releases have been identified. Once the water vapor was observed, personnel performed radiological contamination surveys on the roof of the structure with no contamination detected. Further air samples indicated no release of contamination. Additionally, Industrial Hygiene performed Tunnel head space vapor monitoring (for VOCs) and found no elevated readings.			
2	Section (viii) Cause of the Incident	"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." The report does not explain the following: 1. Where the opening was located on the structure that houses equipment to open the (unfilled) water-filled door. 2. How large the opening was.	Provide an explanation on the following: 1. Where was the opening located on the structure that houses equipment to open the (unfilled) water-filled door? 2. How large was the opening? *Note: The 15-Day Report does not need to be updated to address this comment.*		1. The opening was located on the top of the water filled door structure where the hoist mechanism penetrates the concrete roof. 2. The opening was 14.5 inches by 33.9 inches			

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3	Section (ix) Description of the corrective action taken to prevent reoccurrence of the incident.	"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." The report does not explain the following: 1. Where the sealed pathways were located that exhibited potential to provide leak pathways. 2. How these areas were evaluated. 3. The type of sealant used. 4. How long the sealant is expected to work. 5. Will the tunnel continue to be evaluated for degrading sealant until grouting is completed.	Provide an explanation on the following: 1. Where were the sealed pathways located that exhibited potential to provide leak pathways? 2. How were these areas evaluated? 3. What was the type of sealant used? 4. How long is the sealant expected to work? 5. Will the tunnel continue to be evaluated for degrading sealant until grouting is completed? *Note: The 15-Day Report does not need to be updated to address this comment.*		1. Evaluation of the ventilation exhaust system at the south end of the tunnel identified joints and previously sealed areas as potential to provide leak pathways. 2. Areas were evaluated by visual inspection. 3. Foil tape was used to seal the joints and potential leak paths. 4. Foil tape typically last for extended periods up to several years. The tape will last for the duration of the grouting operations. 5. Visual inspections are occurring during grouting operations and will continue until the grouting operation is complete.			