

**PUREX STORAGE TUNNELS  
ADDENDUM I  
INSPECTION REQUIREMENTS  
CHANGE CONTROL LOG**

Change Control Logs ensure that changes to this unit are performed in a methodical, controlled, coordinated, and transparent manner. Each unit addendum will have its own change control log with a modification history table. The “**Modification Number**” represents Ecology’s method for tracking the different versions of the permit. This log will serve as an up to date record of modifications and version history of the unit.

Modification History Table

<b>Modification Date</b>	<b>Modification Number</b>
12/17/2018	8C.2018.5F
09/30/2010	

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**ADDENDUM I**  
**INSPECTION REQUIREMENTS**

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1 **I. INSPECTION REQUIREMENTS**

2 This addendum discusses the inspection requirements for dangerous waste management units within the  
3 Plutonium Uranium Extraction Facility (PUREX) Storage Tunnels. The PUREX Storage Tunnels are  
4 permitted as miscellaneous units under Washington Administrative Code (WAC) 173-303-680 and  
5 comprise Closing Unit Group 25.

6 **I.1 PUREX Tunnel Number 1**

7 PUREX Tunnel Number 1 has been filled with grout, and personnel entry is no longer possible.  
8 Inspection of the tunnel interior cannot be performed. External inspections of the tunnel will be  
9 performed annually. Annual inspections are sufficient because the waste is encapsulated with grout  
10 minimizing the potential for structural failure and release of dangerous waste constituents to the  
11 environment through normal aging of the structure. The identified inspection frequency is sufficient to  
12 detect the types of problems defined in Table I.1. The inspection schedule and records will be maintained  
13 in the Hanford Facility Operating Record, PUREX Tunnel Number 1 File for a minimum of 5 years.

14 Information from inspections will be recorded on inspection record forms. The forms are used to initiate  
15 corrective action if necessary. The elements inspected at Tunnel Number 1 are identified in Table I.1.  
16 Abnormal conditions are recorded, evaluated, and corrective action initiated as necessary. Abnormal  
17 conditions means changes from previous observations of the exterior conditions of the tunnel that have  
18 the potential to affect the safe storage of dangerous wastes.

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**Table I.1. Inspection Schedule for Tunnel Number 1**

Requirement Description	Inspection Frequency	Types of Problems
Perform external surveillance of PUREX Storage Tunnel Number 1	Annual	External surfaces of PUREX Storage Tunnel Number 1 are observed for evidence of structural deterioration. Tunnel subsidence and erosion of the earth cover are of primary concern.  The points of access to Tunnel Number 1 are inspected to ensure warning signs are in place, visible, and legible.

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21 **I.2 PUREX Tunnel Number 2**

22 PUREX Tunnel Number 2 will be filled with grout during interim closure activities. The inspection  
23 requirements before and after grouting are described below.

24 Personnel access into Tunnel Number 2 is prohibited because of the threat of structural failure. During  
25 and after grouting, personnel entry will not be possible. Thus, inspection of the tunnel interior will not be  
26 performed. Video surveillances of the exterior of the tunnel are performed and documented and will  
27 continue daily until grouting is completed. External visual inspections of the tunnel will be performed  
28 annually. Annual inspections are sufficient because the waste will be encapsulated with grout minimizing  
29 the potential for structural failure and release of dangerous waste constituents to the environment through  
30 normal aging of the structure. The identified inspection frequency is sufficient to detect the types of

1 problems defined in Table I.2. The inspection schedule and records will be maintained in the Hanford  
 2 Facility Operating Record, PUREX Tunnel Number 2 File for a minimum of 5 years.

3 Information from inspections will be recorded on inspection record forms. The forms are used to initiate  
 4 corrective action if necessary. The elements inspected at Tunnel Number 2 are identified in Table I.2.  
 5 Abnormal conditions are recorded, evaluated, and corrective action initiated as necessary. Abnormal  
 6 conditions means changes from previous observations of the exterior conditions of the tunnel that have  
 7 the potential to affect the safe storage of dangerous wastes.

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**Table I.2. Inspection Schedule for Tunnel Number 2**

<b>Requirement Description</b>	<b>Inspection Frequency</b>	<b>Inspection Method</b>	<b>Types of Problems</b>
Perform external surveillance of PUREX Tunnel Number 2	Annual	Visual	External surfaces of PUREX Tunnel Number 2 are observed for evidence of structural deterioration. Tunnel subsidence and erosion of earth cover are of primary concern.  The points of access to Tunnel Number 2 are inspected to ensure warning signs are in place, visible, and legible.
Perform external surveillance of PUREX Tunnel Number 2	Daily until interim closure grouting activities are complete	Video	External surfaces of PUREX Tunnel Number 2 are observed for evidence of structural deterioration. Tunnel subsidence, erosion of earth cover, and vent stack damage are of primary concern.

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