

Proposed Permit Modifications for Hanford's Waste Encapsulation and Storage Facility

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Agenda



- Introductions
- Purpose of Public Meeting
- Overview of the Waste Encapsulation and Storage Facility (WESF)
- WESF Stabilization and Ventilation Project
- Proposed Permit Modifications
- Permit Modification Process
- How to Submit a Comment
- Questions

Purpose of Public Meeting



- Provide information on DOE's proposed Class 3 modifications to the Hanford Facility Dangerous Waste Permit
 - DOE has initiated a project for the continued safe and compliant operation of the Waste Encapsulation and Storage Facility (WESF)
 - Replace an aging exhaust ventilation system
 - Stabilize legacy radioactive contamination to prevent an environmental release
 - Permit modifications have been submitted to the Washington State Department of Ecology
 - Public comment and feedback are being requested
- Class 3 Modifications are the most significant of the three modification classes and address changes that substantially alter a facility or its operations

Overview of WESF



- In the 1970's radioactive cesium and strontium were removed from underground waste tanks
 - Reduced the amount of heat generated in waste tanks
 - Provided cesium and strontium for commercial applications
- Between 1974 and 1985 the WESF encapsulated cesium and strontium
 - Double-walled, stainless steel capsules
 - Capsules were welded and leak tested



Overview of WESF (continued)



- During WESF operations, hot cells allowed workers to safely handle the cesium and strontium
 - Provided shielding, manipulators and processing equipment
 - Seven hot cells labelled A through G
- WESF was placed into surveillance mode in 1985
 - Process equipment cleaned and flushed
 - Hot Cells A through E deactivated and manipulators removed
 - At present, Hot Cells F and G remain available to respond to a failed capsule



Overview of WESF (continued)



- WESF is a Treatment, Storage and Disposal (TSD) unit in Hanford Facility Dangerous Waste Permit
 - Operating under Interim Status standards
- One Dangerous Waste Management Units (DWMU) includes: Pool Cells 1 thru 8, pool cell 12 and Hot Cell G
 - 1,936 capsules are currently stored underwater in the WESF Pool Cells
- Second DWMU includes the Hot Cells A-F
 - Hot Cells A-E have been inactive since 1985



Overview of WESF (continued)



- Air emissions from WESF are permitted under a Washington State Department of Health license and the Hanford Air Operating Permit
- WESF Stabilization and Ventilation Project will significantly reduce the amount of material that could be released to the environment
- Air permitting will be a separate permitting task, and is not covered in this public meeting



WESF Stabilization and Ventilation Project



- Replace an existing exhaust ventilation system
- Stabilize legacy contamination to prevent a release to the environment
- Project is essential for the continued safe and compliant operation of the WESF

Proposed Permit Modifications



- Permit modifications are necessary to allow DOE to proceed with the Stabilization and Ventilation Project
- Class 3 permit modification to the Hanford Facility Dangerous Waste Permit – Operating Group 14
 - Regulates storage, treatment and disposal of Hanford’s dangerous and mixed dangerous wastes
 - Class 3 modifications cover major changes that substantially alter the facility or its operation
- Modified Permitting Documents
 - Part A – RCRA Permit Application
 - Hot Cells A-F Closure Plan

Part A – RCRA Permit Application



- Proposed Modifications

- Change will reduce storage volume to accommodate current inventory of capsules
- Update description of the facility
- Revise topographic maps
- Add additional photographs of WESF
- Describe one operating Dangerous Waste Management Unit necessary for storage of capsules (pool cells and Hot Cell G)
- Describe the closure of one Dangerous Waste Management unit (Hot Cells A through F)

Hot Cell A-F Closure Plan



- Proposed Modifications
 - Describes clean closure
 - Describes an interim action to stabilize the legacy contamination in Hot Cells A through F
 - Provides a detailed description of the stabilization activities
 - For example, how grout will be added to the hot cells
 - Provides a schedule for interim closure activities
- Final Closure of WESF
 - Coordinated with WESF Operable Unit Group and B Plant Remedial Action which will be conducted under CERCLA
 - Interim actions to stabilize the hot cells will not impact the proposed clean closure of WESF (hot cells will be removed)
- Identifies need for a Site-Specific Land Disposal Restrictions (LDR) treatment standard variance

Land Disposal Restriction (LDR) Treatment Standard Variance



- Two hot cells contain a small quantity of hazardous constituents that, when disposed, would be subject to LDR treatment requirements
 - 6 objects: 4 trays and 2 pipes
 - Conservatively designated with dangerous waste codes for toxicity characteristic metals
- Treatment Variance Petition describes why it is technically and environmentally inappropriate to treat items to a concentration based LDR treatment standard
- Variance proposes macro-encapsulation of the items
 - Equally protective of human health and the environment

Class 3 Permit Modification Process



- Class 3 Modifications are the most significant of the three modification classes and address changes that substantially alter a facility or its operations
- Modification Process
 - Provide a 30-day notice of an upcoming public comment period
 - Submit permit modification request to the Washington Department of Ecology
 - Provide fact sheet describing the proposed modifications
 - Provide a 60-day public comment period on modification request
 - Hold public meeting
 - Ecology receives and consider public comments
 - Ecology makes a decision and potentially drafts the text for the updated permit
 - Ecology provides a 45 day public comment period on the permitting decision

How to Submit Public Comments



- Members of the public are encouraged to submit written comments to the Washington State Department of Ecology during the public comment period
 - December 11, 2014 through February 20, 2015
 - Comments may be submitted via U.S. mail to:
 - Stephanie Schleif
 - Washington Department of Ecology
 - 3100 Port of Benton Boulevard
 - Richland, WA 99354
- Comments may be submitted via e-mail to:
 - Hanford@ecy.wa.gov



Questions

Backup Slides



- **WESF DWMUs**

WESF Dangerous Waste Management Units

