



BC Controlled Area Waste Site Engineering Evaluation/Cost Analysis

The U.S. Department of Energy, the Washington State Department of Ecology and the U.S. Environmental Protection Agency (the Tri-Party Agencies) want your comments on a plan to evaluate cleaning up a seven square mile portion of the 200 area on the Hanford Site. This Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) non-time critical removal action engineering evaluation/cost analysis (EE/CA) evaluates a removal action for contaminated soil on the northern part of the BC Controlled Area.

U.S. Department of Energy • Washington State Department of Ecology • U.S. Environmental Protection Agency

Background

The BC Controlled Area (UPR-200-E-83) is located south of the 200 East Area (in what is commonly called the 600 Area) near the center of the Hanford Site. It is Hanford's largest surface area waste site at approximately 13 square miles and is part of the 200-UR-1 operable unit. The area addressed in the EE/CA is approximately seven square miles of the northern part of the waste site. The shallow-contaminated soil within the northern BC Controlled Area is the result of animal intrusion and wind dispersion from the BC Cribs and Trenches (waste sites that are not part of the BC Controlled Area waste site). Data collected from the 200 Area Ecological Risk Assessment Phases I and II identified the BC Controlled Area as one of two areas in the Central Plateau that pose an unacceptable risk to ecological receptors. Contamination in the northern part of the BC Controlled Area is thought to be bound to the soil, primarily in the top six inches. The primary radiological contaminants are cesium-137 and strontium-90. The potential further spread of contaminants from this area could result in an increased radiation risk to humans from inhalation and ingestion. The ecological risk and potential risk to humans are the reasons for this CERCLA removal action.



What is an Engineering Evaluation/Cost Analysis?

An EE/CA evaluates feasible and cost-effective alternatives for a proposed removal action and recommends a preferred removal action under CERCLA.

A removal action is an action taken over the short term to address a release or threatened release of hazardous substance. An EE/CA identifies and evaluates removal action alternatives against three criteria: effectiveness, implementability and cost and recommends an alternative. After public review and comment an Action Memorandum is issued.

What Cleanup Actions Were Evaluated?

The removal action alternative for the BC Controlled Area must be protective of human health and the environment and meet the removal action objectives.

Three removal action alternatives were identified and evaluated in this EE/CA:

1. **No Action.** This alternative is required as a baseline against which to evaluate removal action alternatives.
2. **Monitored Natural Attenuation/Institutional Controls.** This alternative relies on radioactive decay to lower contamination levels and monitoring while decay takes place. This includes monitoring to

Public Comment

The Tri-Party Agencies want your feedback on the BC Controlled Area EE/CA.

The Public comment period will run from February 25 through March 26, 2008.



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check that contaminants don't spread (and includes response if they do). Warning signs would be required as part of the institutional controls.

3. **Remove, Treat and Dispose.** This alternative calls for contaminated soil to be removed (excavated) to a depth of approximately six inches and transported to the Environmental Restoration Disposal Facility (ERDF) for disposal. The contaminated soil is not expected to require treatment.

What is the Preferred Alternative?

The recommended removal action alternative for the northern portion of the BC Controlled Area is Remove, Treat, and Dispose. The total volume of contaminated soil that will be removed under this alternative is approximately 181,000 m³ (237,000 yd³), estimated to weigh 327,000 tons.

This removal action will:

- Remove contaminated soil that poses a threat to ecological receptors.
- Reduce the areas of contamination at the Hanford Site by removing the principal threat at the BC Controlled Area, Hanford's largest surface waste site.
- Support the Hanford cleanup mission by providing the ERDF with contaminated soil to meet its operating requirements for compaction, which otherwise may require use of clean soils.
- Contribute to the long-term cleanup goal for the 200 Area.

This removal action is an interim step. The final remedial action selected for the BC Controlled Area will be addressed in the 200-UR-1 Operable Unit Proposed Plan that will go out for public review and comment.

How Can You Become Involved?

A 30-day public comment period on the BC Controlled Area Waste Site EE/CA will run from February 25, 2008 thru March 26, 2008. The Tri-Party agencies would like your feedback on this document and will consider all comments before finalizing it.

Please submit comments to:



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To obtain a copy of the document, call the Hanford Cleanup Line 1-800-321-2008.

*This Engineering Evaluation/Cost Analysis can be viewed on line at
<http://www5.hanford.gov/hanford/eventcalendar/> under Events – Public Comment Periods.*

The document is also available for review at the
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Fact Sheet

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