



Plan to Evaluate Alternatives to Clean Up 194 Waste Sites on the Hanford Central Plateau

(200-MG-1 Operable Unit Engineering Evaluation/ Cost Analysis [EE/CA])

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

The U.S. Department of Energy (DOE), the Washington State Department of Ecology and the U.S. Environmental Protection Agency (US EPA), the Tri-Party Agreement (TPA) agencies, would like feedback on a plan that evaluates cleanup alternatives for 194 waste sites in the 200 Area of the Hanford Central Plateau.

Background

One hundred ninety-four waste sites in the 200 Area of the Hanford Site make up the 200-MG-1 Operable Unit (OU). These sites are located within the Central Plateau. They received potentially hazardous and/or radioactive waste, debris, or liquids and are expected to have shallow contamination (surface to 15 feet below ground surface) that could harm humans and/or the environment. The sites are not expected to pose a threat to groundwater, because only minor amounts of liquids were disposed, leaked, or spilled. They include dumps, trenches, cribs, ditches and retention basins along with a few sites contaminated from historic leaks or spills.

Recently, the 200-MG-2 OU EE/CA that evaluated cleanup alternatives for 34 waste sites in the 200 Area went out for public comment (May 27-June 26). Both EE/CAs evaluate similar alternatives for similar waste sites in the 200 Area. The 200-MG-1 OU EE/CA evaluates a fourth alternative to Maintain Existing Soil Cover/Institutional Controls/Monitored Natural Attenuation (MESC/IC/MNA). Waste sites in both EE/CAs are candidates to be cleaned up using American Recovery and Reinvestment Act funds.

National Remedy Review Board

The proposed removal actions will be discussed with the US EPA National Remedy Review Board (NRRB). The NRRB reviews Non-Time Critical Removal Actions at National Priority List sites that exceed \$30 million or \$75 million for primarily radioactive waste (per joint DOE/EPA Memorandum dated October 5, 1998).

EPA created the NRRB in January 1996 as part of a comprehensive package of reforms designed to make the Superfund program faster, fairer, and more efficient. The NRRB is a peer-review group that understands both the EPA regional and headquarters perspectives in the remedy selection process. It reviews proposed Superfund cleanup decisions that meet cost-based review criteria to assure they are consistent with Superfund law, regulations, and guidance. The NRRB is composed of managers or senior technical or policy experts from EPA offices important to Superfund remedy selection issues. Any recommendations from the NRRB will be considered by the Tri-Parties when they write the Action Memorandum to authorize the work described in the EE/CA.

Removal Action Alternatives

Since the waste sites being considered in this action are generally shallow and it is expected to be relatively simple to remove the contamination, select removal actions were evaluated.

Public Comment

The Tri-Party Agencies want your feedback on the 200-MG-1 Operable Unit Engineering Evaluation/Cost Analysis.

The Public comment period will run from **June 17 through July 17, 2009.**





216-B-2-3 Site

The four removal action alternatives identified are:

Alternative 1: No Action

If no action were taken, legal restrictions, institutional controls or active measures would not be applied to these waste sites. This alternative would provide no protectiveness to humans or the environment.

Cost: This alternative was not costed, because this alternative provides no protectiveness.

Alternative 2: Maintain Existing Soil Cover/Institutional Controls/Monitored Natural Attenuation (MESC/IC/MNA)

The MESC/IC/MNA alternative maintains and/or increases the existing soil cover on a waste site, as needed, to provide environmental protection from intrusion by plants and animals. It includes institutional controls to limit human access. With this alternative, radioactive contaminants remaining at the site will be allowed to decay in place (i.e., to attenuate naturally), thereby reducing risk until removal action levels are met. This alternative could be selected for sites that could be covered by engineered barriers that are considered likely for some major buildings.

Cost: This alternative was not costed, because costs for this alternative are included in existing surveillance and maintenance programs required by DOE's radiation protection programs.

Alternative 3: Confirmatory Sampling/No Further Action (CS/NFA)

The CS/NFA alternative assumes that the waste site does not presently pose a threat to human health and the

environment, and sampling and analysis will be conducted to confirm that no further action is required.

Cost: \$29,695,000

Alternative 4: Removal, Treatment, and Disposal (RTD)

The RTD alternative includes removal and disposal of soil and other materials, with treatment (if required) for disposal. If contamination is found to exist at depths substantially greater than 15 feet, soil samples would be taken to characterize potential risks to the groundwater.

Cost: \$89,802,000

Removal Evaluation Process

Each alternative was evaluated and compared against three criteria: effectiveness, implementability and cost.

- Effectiveness is the ability to meet the removal action objectives and overall protection of human health and the environment; compliance with applicable or relevant and appropriate requirements for a removal action and other standards; short-term effectiveness; long-term effectiveness and permanence; and reduction of toxicity, mobility or volume through treatment.
- Implementability is the technical and administrative feasibility of implementing an alternative, including the availability of required services and materials.
- Cost includes estimated direct and indirect costs and costs associated with decontamination and decommissioning.



UPR-200-W-65 Site

Preferred Alternatives

Based on the findings of the removal evaluation process, in particular, given that the type, size and extent of hazardous substance contamination vary considerably across the 200-MG-1 OU waste sites, the preferred alternative is **Confirmatory Sampling/No Further Action for 91 waste sites and Removal, Treatment and Disposal for 103 waste sites.** If a site selected for

CS/NFA is determined to pose a threat to human health and the environment, it will be treated using the RTD alternative. The preferred alternative for each waste site is recommended based on its overall ability to protect human health and the environment, and its effectiveness in maintaining protection for both the short term and the long term. These alternatives best satisfy the three removal criteria based on the conditions of each waste site.

Next Steps

The TPA agencies will consider the public comments received on the *200-MG-1 OU EE/CA* during the public comment period before deciding on final removal action alternatives. **A 30-day public comment period will run from June 17 through July 17, 2009.** No public meeting is scheduled at this time. To request a public meeting, contact Paula Call, DOE (509-376-2048) by July 1. TPA agencies encourage you to obtain a copy of the EE/CA and provide comments on the removal action alternatives.

The TPA agencies will respond in writing to public comments in a “responsiveness summary” that will be attached to the document detailing the final removal actions, the Action Memorandum. The Action Memorandum will be available at the Administrative Record (AR) and Public Information Repository located at 2440 Stevens Center Place, Room 1101, Richland, WA. It can be viewed electronically from the AR website: <http://www2.hanford.gov/arpir/>

**Please submit
comments by
July 17 to:**

Frank Roddy

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Richland Operations Office
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Email: 200mg1eeca@rl.gov

The EE/CA can be viewed on line at <http://www5.hanford.gov/hanford/eventcalendar/> under **Events – Public Comment Periods.**

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

**The document is also available for review at the
Public Information Repositories listed below.**

HANFORD PUBLIC INFORMATION REPOSITORY LOCATIONS

Portland

Portland State University
Bradford Price Millar Library
1875 SW Park Ave
Attn: Don Frank (503) 725-4709
Map: <http://www.pdx.edu/map/html>

Seattle

University of Washington
Suzallo Library
Government Publications Division
Attn: Eleanor Chase (206) 543-4664
Map: <http://tinyurl.com/m8ebj>

Richland

U.S. Department of Energy Public Reading Room
Washington State University, Tri-Cities
Consolidated Information Center, Room 101-L
2770 University Drive
Attn: Janice Parthree (509) 372-7443
Map: <http://tinyurl.com/2axam2>

Spokane

Gonzaga University Foley Center
East 502 Boone
Attn: Linda Pierce (509) 313-3834
Map: <http://tinyurl.com/2c6bpm>

Fact Sheet

Administrative Record and Public Information Repository:
Address: 2440 Stevens Center Place, Room 1101, Richland, WA
Phone: 509-376-2530
Web site address: <http://www2.hanford.gov/arpir/>

200-MG-1-OU EE/CA Fact Sheet
Department of Energy
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