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2000

EPA Superfund
Explanation of Significant Differences:

HANFORD 100-AREA (USDOE)
EPA ID: WA3890090076
OU 27
BENTON COUNTY, WA
06/15/2000

EXPLANATION OF SIGNIFICANT DIFFERENCE FOR THE 100 AREA REMAINING SITES ROD[1]

June 2000

SITE NAME AND LOCATION

USDOE Hanford 100 Area
100-IU-6 Operable Unit
Hanford Site
Benton County, Washington

INTRODUCTION TO THE SITE AND STATEMENT OF PURPOSE

The U.S. Environmental Protection Agency (EPA – the lead regulatory agency), the Washington State Department of Ecology (Ecology – the support regulatory agency), and the U.S. Department of Energy (DOE – the responsible agency), hereafter referred to as the Tri-Parties, are issuing this Explanation of Significant Difference (ESD) to provide notice of the decision to remediate two sites, the 600-23 and JA Jones #1 waste sites, located on the Hanford Site (Figure 1). The remedial approach will involve removal of wastes, treatment of contaminated soil and debris, as necessary; and subsequent disposal at the Environmental Restoration Disposal Facility (ERDF) in the 200 Area of the Hanford Site.

Waste sites within the 100-IU-6 Operable Unit are currently undergoing remediation through actions identified in the "100 Area Remaining Sites ROD[1]." This ESD adds the 600-23 and JA Jones #1 waste sites to this operable unit through a mechanism called the Plug-in Approach. The Plug-in Approach allows the selected remedy in the ROD, to be applied to similar, but separate sites that meet specific criteria as defined in the ROD. Cleanup actions can proceed under this approach without a time-consuming re-evaluation of remedial alternatives through the entire CERCLA process (i.e., development of separate remedial investigation/feasibility studies, proposed plans, and RODs). The process for invoking the Plug-in Approach is to notify the public through an ESD to the relevant remedy selection decision document, in this case, the 100 Area Remaining Sites ROD. The 600-23 and JA Jones #1 waste sites have been determined to be suitable candidates for this approach.

The Tri-Parties are issuing this ESD in accordance with Section 117(c) of the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA) and Section 300.435(c)(2)(i) of the CERCLA National Contingency Plan. Its purpose is to provide public notice of the decision to plug the 600-23 and JA Jones #1 waste sites into the remedy selected in the 100 Area Remaining Sites ROD. This ESD will become part of the Administrative Record for the cleanup decision for the Hanford Site. The Administrative Record is available for review at the following location:

Administrative Record
2440 Stevens Center Place, Room 1101
Richland, Washington 99352
509/376-2530
Attention: Debbi Isom

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[1]EPA, July 1999, *Interim Action Record of Decision for the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1, 100-FR-2, 100-HR-1, 100-HR-2, 100-KR-1, 100-KR-2, 100-IU-2, 100-IU-6, and 200-CW-3 Operable Units, Hanford Site, Benton County, Washington,* also known as the "100 Area Remaining Sites ROD."

SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

The 600-23 waste site is an area of buried debris inside a large gravel pit. Miscellaneous low-level radioactive equipment, construction debris from the 1706-KE facility, and drums were dumped at this site. Drum contents are suspected to be equipment and miscellaneous small parts. Asbestos insulation material may also be present. Most of the waste is located in the northern portion of a middle terrace at the west-end of the pit. The northern portion of the pit is still actively used as a gravel source.

The JA Jones #1 waste site was a dumping pit for paint and other construction debris. In 1977, 7–10 pickup truck loads of overstocked paint and solvents (including latex, enamel, epoxy paints, and paint thinners) were disposed of into the pit. Contents were reportedly dumped from the 1-gal and 5-gal containers into the pit for disposal, followed by the empty containers. The site has since been backfilled with soil from adjacent areas. Soil subsidence and bulldozing marks are evident at the site.

The selected remedy established in the ROD consists of the following components:

- Remove contaminated soil, structures and associated debris
- Treat these wastes as required to meet disposal facility requirements
- Disposal of contaminated materials at the ERDF
- Backfill of excavated areas with clean material, followed by revegetation

The ROD selected RTD as the remedial action for 46 waste sites in the 100 Areas of the Hanford Site. In addition, the ROD established the Plug-in Approach to be used to remediate new sites that share similar characteristics and are determined to require remedial action.

BASIS FOR THE DOCUMENT

The 600-23 and JA Jones #1 waste sites have been determined by the Tri-Parties to require remediation due to the presence of radiological and hazardous substances present in concentrations that pose a threat to human health and the environment. Based on a qualitative risk estimate, it has been determined that these sites contain radioactive contaminants that exceed an incremental cancer risk of 10-4 and/or contain chemical contaminants that exceed unacceptable risk levels.

The 600-23 and JA Jones #1 waste sites were formerly identified in the 300-FF-2 Operable Unit of the Hanford Site, but have been relocated to the 100-IU-6 Operable Unit through modification of the *Hanford Federal Facility Agreement and Consent Order* (the Tri-Party Agreement). This relocation was initiated by the Tri-Parties due to the differences in anticipated land use (and therefore the level of remediation required) between the 600-23 and JA Jones #1 waste sites and the rest of the 300-FF-2 Operable Unit waste sites. The reasonably anticipated future land use of the 300-FF-2 Operable Unit is industrial. The 600-23 and JA Jones #1 waste sites are within areas of the Hanford Site that are not anticipated to be used for industrial purposes. The potential for less restricted future land use requires different remedial action objectives for these two waste sites than those required for industrial land use. This is consistent with the unrestricted use scenario used for the 100-IU-6 Operable Unit and the goal of the 100 Area Remaining Sites ROD.

In order to qualify for use of the Plug-in Approach, the ROD requires that the 600-23 and JA Jones #1 waste sites share common physical and contaminant characteristics with those sites for which RTD was selected in the ROD, These characteristics were defined in the ROD and consist of similar types of:

- contaminants (e.g., chemical and radiological)
- contaminated environmental media (e.g., soil), and
- contaminated waste material (e.g., concrete, metal, wood).

The Tri-Parties have determined that, based on these characteristics, the 600-23 and JA Jones #1 waste sites qualify for plugging into the RTD alternative established in the ROD because of their similarities to waste sites contained in the ROD.

DESCRIPTION OF SIGNIFICANT DIFFERENCES

The addition of the 600-23 and JA Jones #1 waste sites into remedial actions identified in the ROD does not change the performance of the RTD remedy or the overall schedule for remediation of waste sites currently included in the ROD. There would be a slight increase in the cost of the remedy, which was originally estimated at $56 million. The present value cost to RTD the JA Jones #1 waste site is approximately $347,000, whereas the present value cost to remediate the 600-23 waste site is estimated at $938,000. Therefore the total present value cost associated with implementing this ESD is approximately $1.3 million (no O&M costs are associated with this remedy; these are capital costs only).

The schedule for cleanup of these sites will be established under Milestone Number M-16-00F of the Tri-Party Agreement, which requires a comprehensive schedule for cleanup of all waste sites in the 100 Area by 12/31/2001. In addition, the RTD activity for these two waste sites will be added to the next revision of the "Remedial Design/Remedial Action Workplan for the 100 Area" (DOE/RL-96-17).

SUPPORT AGENCY COMMENTS

By issuance of this ESD, the support agency concurs with the decision to plug in the 600-23 and JA Jones #1 waste sites into the RTD alternative selected in the ROD.

STATUTORY DETERMINATIONS

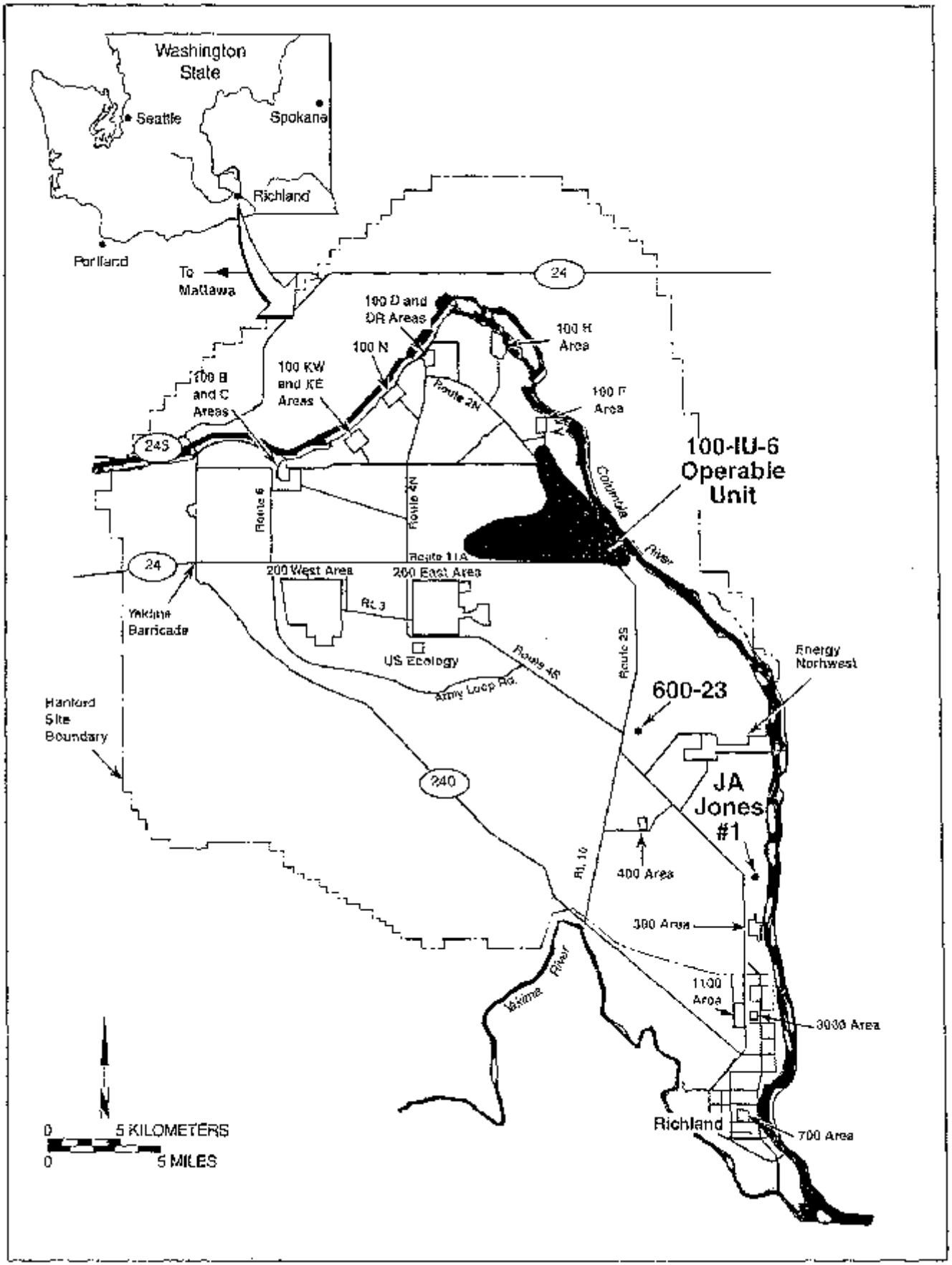
This modified remedy satisfies CERCLA Section 121. The interim remedy selected in the 100 Area Remaining Sites ROD, as modified by this ESD through the inclusion of the 600-23 and JA Jones #1 waste sites, remains protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to remedial actions, is cost-effective, and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable. In addition, the remedy employs treatment that reduces the volume, toxicity, or mobility of hazardous wastes as their principal element as practicable for the waste sites.

The response action selected by this ESD and the 100 Area Remaining Sites ROD is necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment. Such a release or threat of release may present an imminent and substantial endangerment to public health, welfare, or the environment.

PUBLIC PARTICIPATION COMPLIANCE

The public participation requirements set out in NCP Section 300.435(c)(2)(i) are met through issuance of this ESD.

Figure 1. Location of the 100-IU-6 Operable Unit and Waste Sites 600-23 and JA Jones #1.



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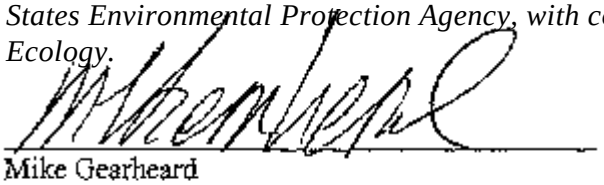
Signature sheet for the Explanation of Significant Difference to the Interim Action Record of Decision for the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1, 100-FR-2, 100-HR-1, l00-HR-2, 100-KR-1, 100-KR-2, 100-IU-2, 100-IU-6, and 200-CW-3 Operable Units, Hanford Site, Benton County, Washington, between the United States Department of Energy and the United States Environmental Protection Agency, with concurrence by the Washington State Department of Ecology.



6-15-00

Mike Gearheard
Director, Office of Environmental Cleanup
United States Environmental Protection Agency Region 10

Date

Signature sheet for the Explanation of Significant Difference to the Interim Action Record of Decision for the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1, 100-FR-2, 100-HR-1, 100-HR-2, 100-KR-1, 100-KR-2, 100-IU-2, 100-IU-6, and 200-CW-3 Operable Units, Hanford Site, Benton County, Washington, between the United States Department of Energy and the United States Environmental Protection Agency, with concurrence by the Washington State Department of Ecology.

H L Boston

Harry L. Boston
Deputy Manager, Site Transition
Richland Operations Office
United States Department of Energy

6/20/00
Date

Signature sheet for the Explanation of Significant Difference to the Interim Action Record of Decision for the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1, 100-FR-2, 100-HR-1, 100-HR-2, 100-KR-1, 100-KR-2, 100-IU-2, 100-IU-6, and 200-CW-3 Operable Units, Hanford Site, Benton County, Washington, between the United States Department of Energy and the United States Environmental Protection Agency, with concurrence by the Washington State Department of Ecology.

Mike Wilson
Program Manager, Nuclear Waste Program
Washington State Department of Ecology

6/27/00
Date