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Appendix N
Rev. 0

Remedy Selection Process for Remaining Source Operable Unit Waste Sites

United States
Department of Energy

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APPENDIX N

REMEDY SELECTION PROCESS FOR REMAINING SOURCE OPERABLE UNIT WASTE SITES

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ACRONYMS

CERCLA	*Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
COPC	contaminants of potential concern
D&D	decontamination and decommissioning
DOE	U.S. Department of Energy
EAF	Experimental Animal Farm
Ecology	Washington State Department of Ecology
EHQ	Environmental Hazard Quotient
EPA	U.S. Environmental Protection Agency
ERDF	Environmental Restoration Disposal Facility
MCACES	Micro-Computer Aided Cost Estimating System
MTCA	Model Toxics Control Act
Process Document	*100 Area Source Operable Unit Focused Feasibility Study*
ROD	Record of Decision
RCRA	*Resource Conservation and Recovery Act of 1976*
RL	U.S. Department of Energy Richland Operations Office
Tri-Party Agreement	*Hanford Federal Facility Agreement and Consent Order*
TSD	Treatment, Storage, and Disposal
WAC	*Washington Administrative Code*
WIDS	Waste Information Data System

N1.0 INTRODUCTION

This document has been prepared as an appendix to the *100 Area Source Operable Unit Focused Feasibility Study* (Process Document) (DOE-RL 1995a). The Process Document and its appendices evaluate potential remedial alternatives for waste site groups in the 100 Area of the Hanford Site in accordance with the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA) and the *Resource Conservation and Recovery Act of 1976* (RCRA). Previously, the Tri-Parties (U.S. Department of Energy [DOE], Richland Operations Office [RL]; the U.S. Environmental Protection Agency [EPA]; and the Washington State Department of Ecology [Ecology]) issued an Interim Remedial Action Record of Decision (ROD) (EPA 1995) and a subsequent ROD Amendment (EPA 1997a) requiring cleanup of radioactive liquid waste sites in the 100 Area. Cleanup of these sites began during 1995 and is ongoing.

This document focuses on all 100 Area source operable unit waste sites not previously addressed in the 1995 ROD (EPA 1995), in the 1997 ROD Amendment (EPA 1997a), or as proximity sites. These waste sites, termed the "Remaining Sites," include 442 waste sites in five reactor areas, in the 100-IU-2 and 100-IU-6 Operable Units of the 100 Area, and in the 200-CW-3 waste site group in the 200 Area.* Burial grounds and waste sites in the 100-N Reactor Area are not included in the Remaining Sites and are planned to be addressed in separate decision documents.

The 1995 ROD (EPA 1995) presented two separate remedial alternatives: Remove/Dispose and Remove/Treat/Dispose, the latter requiring soil washing for volume reduction, as appropriate. Both alternatives required treatment in order to meet disposal unit acceptance criteria. The 1997 ROD Amendment (EPA 1997a) excluded soil washing because it was proven to not be cost-effective for 100 Area waste sites. This determination made both of the original alternatives the same for the purpose of comparison. The Remove/Treat/Dispose Alternative presented in the remedy selection process thus corresponds to both of these original alternatives.

N1.1 OBJECTIVES AND SCOPE

The objectives of this document are twofold. The initial objective is to summarize the waste site categorization process for the 100 Area Remaining Sites. The categorization process involves assigning waste sites to general groupings that relate to the regulatory framework under which each site may best be dispositioned, as determined by representatives of the Tri-Parties. The categories are as follows:

- Sites classified or reclassified as "Rejected" in the Waste Information Data System (WIDS)

* Included are seven waste sites that have been determined by the Tri-Parties to have a process history most closely aligned with 100 Area waste sites. See Sections N2.1.8 and N3.2 for discussion and details.

- Sites for non-CERCLA/RCRA action under other regulatory authorities
- RCRA treatment, storage, and disposal (TSD) units
- Burial grounds
- Above-grade facilities (buildings) and structures for decontamination and decommissioning (D&D)
- New CERCLA/RCRA Past Practice sites (per this document).

The second objective is, for those Remaining Sites that have been categorized to be addressed under CERCLA/RCRA Past Practice, to present the remedy selection process. This document records the application of this process for inclusion in the Administrative Record, which forms the basis for the development of a CERCLA Proposed Plan and ROD for the 100 Area Remaining Sites.

This document is divided into five sections, as follows:

Section N1.0: Introduction. This section introduces the 100 Area Remaining Sites and presents overall objectives of this document. It also summarizes the background and the results of the application of the CERCLA/RCRA Past Practice process to waste sites in the 100 Area.

Section N2.0: Remaining 100 Area Waste Sites. This section provides an overview of the Remaining Sites and their relationship to past activities at reactor areas and associated facilities. It summarizes information on the process history at reactor areas associated with the Remaining Sites and discusses waste site contaminants.

Section N3.0: Waste Site Categorization Process. In this section the categorization process applied to the Remaining Sites by the Tri-Parties is presented and the results are summarized.

Section N4.0: Remedy Selection Process: Establishment of the Preferred Remedy. This section documents selection of the Remove/Treat/Dispose Alternative as the preferred cleanup remedy for the Remaining Sites that have been categorized to be addressed under CERCLA/RCRA Past Practice.

Section N4.0: Remedy Selection Process: Use of the Plug-In Approach. This section introduces the use of the Plug-In Approach for remedy selection for the Remaining Sites that have been categorized to be addressed under CERCLA/RCRA Past Practice.

Section N6.0: References. Citations provided to other documents are listed in this section.

N1.2 BACKGROUND

The 100 Area is one of four areas of the Hanford Site that have been included on the EPA's National Priorities List under CERCLA because of soil and groundwater contamination resulting

from past operation of nuclear facilities. To organize cleanup efforts under the Superfund Program, the EPA, Ecology, and RL entered into an interagency agreement in May 1989. The *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al. 1994), and its amendments, provides a legal and procedural framework for cleanup and regulatory compliance at the numerous hazardous waste sites of the Hanford Site.

The *Hanford Past-Practice Strategy* (DOE-RL 1991) streamlined the past-practice remedial action process with a bias for action through optimizing the use of interim remedial measures. The strategy focused on reaching early decisions to initiate and complete cleanup projects, maximizing the use of existing information, coupled with focused, short time-frame, limited field investigations where necessary. Limited field investigation reports identified waste sites for interim remedial measures that were subsequently included in the 1995 ROD and the 1997 ROD Amendment. The remaining 100 Area waste sites were deferred for later action.

N2.0 REMAINING SITES

This section provides an overview of the Remaining Sites and their relationship to past activities at reactor areas and associated facilities.

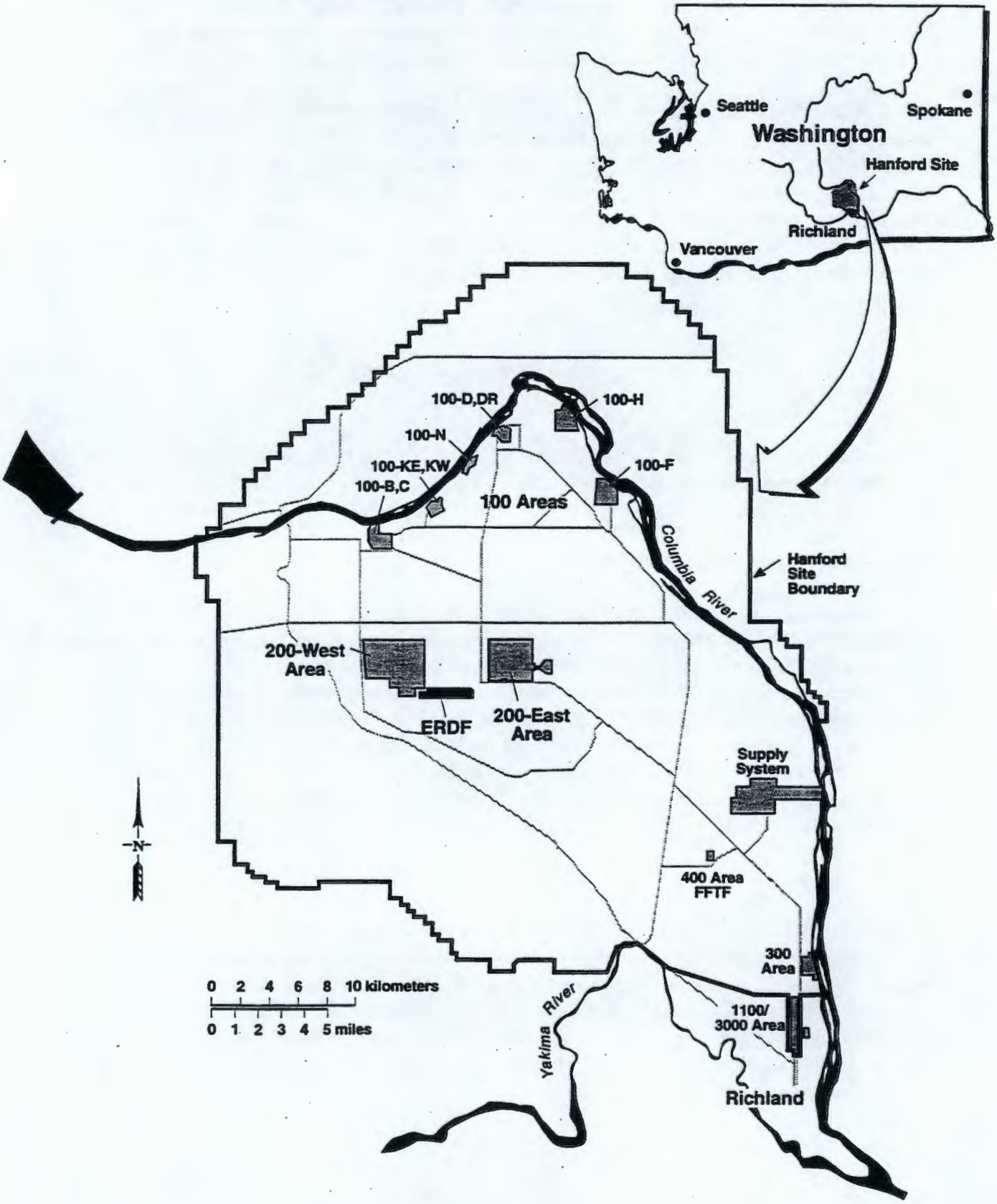
N2.1 PROCESS HISTORY OF REACTOR AREAS

Nine uranium-fueled, graphite-moderated, water-cooled plutonium production reactors were constructed by the U.S. Government along the Columbia River, in the 100 Area of the Hanford Site, during the 20-year period from 1943 to 1963. Their locations are shown in Figure N-1. With the exception of the 100-N Reactor (the last reactor constructed), the process history of the reactors, and hence the associated waste sites and resultant contaminants, were similar. The reactors are retired from service and have been declared surplus by the DOE. All of the reactors and their ancillary facilities are in various stages of D&D to minimize the potential spread of radioactive and nonradioactive contaminants. This process is ongoing, although most of the structures in the 100-BC, 100-D, 100-F, and 100-H Areas have been demolished.

N2.1.1 100-BC Area

The 100-BC Area includes two reactors, 100-B and 100-C, with their associated facilities for water treatment, air filtration, nuclear fuel handling, and effluent disposal, plus laboratories, administrative offices, and various other buildings (Carpenter 1994). A total of 47 buildings were located in this area. Most 100-BC Area buildings have been fully decontaminated and decommissioned. A portion of the 100-BC Area water treatment plant continues in operation to provide potable water to the 200 Area, and the 151-B Electrical Substation continues to provide electrical power.

Figure N-1. Map of the Hanford Site Showing the Reactors in the 100 Area and the Environmental Restoration Disposal Facility.



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The 100-B Reactor was the first of three reactors constructed in 1943 and 1944 as part of the U.S. Army Corps of Engineers Manhattan Project. This reactor was deactivated in 1968. The 100-B Reactor produced the plutonium that fueled the world's first atomic explosions and has been listed on the National Register of Historic Places and as a National Mechanical Engineering Landmark. Community efforts have sought to utilize the 100-B Reactor as a reactor museum.

The 100-C Reactor was Hanford's sixth production reactor. Its construction was completed in 1952 and it operated until 1969. Contaminated ancillary facilities currently are being removed at the 100-C Reactor to place the reactor in interim safe storage.

N2.1.2 100-D Area

Two reactors and their facilities, 100-D and 100-DR, existed in the 100-D Area (Carpenter 1993). The 100-D Reactor was the second to begin operation at Hanford and operated from 1944 until its deactivation in 1967. The 100-DR Reactor, the fifth Hanford reactor, was planned as a replacement for 100-D due to growth and distortion of the 100-D Reactor graphite core. However, when it was determined that the graphite distortion in 100-D could be controlled, facilities were installed to operate both reactors simultaneously. The 100-DR Reactor operated from 1950 to 1964.

The 100-D Ponds TSD unit was constructed as a surface impoundment for liquid effluent and operated between 1977 and 1994. It received primarily nonradioactive, nondangerous liquid effluent from the 183-D Water Treatment Facility. Contaminated sediment was removed from the ponds in August 1996. The 100-D Ponds are being clean closed with approval and incorporation of a Closure Plan in the Hanford Facility RCRA Permit, Modification D.

The 105-DR Large Sodium Fire Facility TSD was established to study fire fighting and safety aspects associated with large sodium or other alkali metal fires in liquid metal fast breeder reactor facilities. The site was last used in 1986, but is still covered under a RCRA Part A Permit and therefore is classified as active. Subsites within the facility have been clean closed in accordance with *Washington Administrative Code* (WAC) closure performance standards. Remaining subsites will be remediated during decommissioning of the 105-DR reactor building and associated systems in accordance with an approved RCRA closure plan.

N2.1.3 100-F Area

The 100-F Reactor was the third Hanford Site reactor built to manufacture plutonium during World War II (Deford 1994). The 100-F Reactor operated from 1945 to 1965, when it was retired. Adjacent to the 100-F Reactor site was the Experimental Animal Farm (EAF), which operated from 1945 to 1976 to study the effects of exposure of ionizing radiation on fish, plants, and animals. The earliest animal research in the 100-F Area began in 1945, exposing fish to varying concentrations of reactor cooling water effluent to determine potential effects of effluent discharge on aquatic life in the Columbia River. Studies involving sheep and swine began in the late 1940's and in 1952, respectively. Most of this work involved 20-year lifetime exposure studies. Pilot studies were also conducted using milk cows, chickens, ducks, and miniature goats. Radioecology experiments with plants and ionizing radiation studies on beagles were also conducted at the EAF. Cereal grains, alfalfa, potted plants, and other crops were grown in

greenhouses in soil containing controlled amounts of strontium-90 and cesium-137. Deford (1994) provides a summary of the EAF facilities and its operational history.

N2.1.4 100-H Area

The 100-H Reactor was the fourth reactor constructed at Hanford, beginning operations in 1949 and continuing until its deactivation in 1965 (Deford and Einan 1995). Subsequently, water clarification basins (the 183-H clearwells) were used as solar evaporation basins for liquid process wastes and nonroutine chemical wastes from the 300 Area. The solar evaporation basins received wastes from 1973 through 1985 and were regulated under RCRA as TSD facilities until they underwent a modified closure, with removal of contaminated materials and debris, that was completed in 1996.

N2.1.5 100-K Area

The two 100-K Area reactors, 100-KE and 100-KW, were constructed during the Korean conflict as part of a large cold war expansion effort at Hanford (Carpenter and Cote 1994). They were the largest reactors built as of their startup date, in 1955, and operated at more than twice the thermal power limits of the six earlier reactors until their deactivation in 1970 and 1971. Facilities in the 100-K Area have continued to be used for a variety of purposes since decommissioning of the reactors, including storage of spent nuclear fuel in the reactor fuel storage basins and rearing of fish in the cooling water settling basins.

Four RCRA TSD units are located in the 1706-KE Building laboratory for an abandoned waste treatment system. This system was originally intended to treat radioactive waste; however, as a protective filing, a Part A Permit Application was filed with Ecology. It cannot be proven that this treatment system has never treated mixed waste; therefore, the system will be closed in compliance with RCRA closure regulations.

N2.1.6 100-N Reactor Area

Waste sites in the 100-N Reactor Area received contaminants from different types of processes than the other reactor areas. Beginning operations in 1963, the 100-N Reactor was designed to be able to either produce plutonium exclusively or produce plutonium with the production of electric power. The cooling water for the reactor core was designed to be recycled instead of using water from the Columbia River as a once-through coolant. It also operated at much higher pressures and temperatures than the other Hanford reactors. Waste sites associated with N Reactor operations will be addressed by separate CERCLA/RCRA decision documents and are not considered for disposition in the 100 Area Remaining Sites process.

N2.1.7 100-IU-2 and 100-IU-6 Operable Units

The 100-IU-2 and 100-IU-6 Operable Units are the former locations of temporary housing camps for Hanford construction workers, temporary construction support facilities for the Manhattan Project, and former townsites that preceded Hanford operations. While most activities in these areas ceased early in the 1950's, it was not until the 1970's that virtually all of the facilities were removed. Many of the waste sites in these operable units are remnants of the pre-Manhattan

Project towns of White Bluffs and Hanford, which were located, respectively, north and south of the 100-F Area. In general, the sites within these operable units consist of surface debris, municipal solid and sanitary waste dumps, oil spills, building foundations, waste construction materials, and ash piles. Thus, the types of sites and expected contaminants are substantially different from those associated with operable units around the production reactors where liquid and solid radioactive wastes and industrial chemicals were disposed to the soil.

N2.1.8 200-CW-3 Waste Site Group

The Tri-Parties have determined that the waste sites of the 200-CW-3 waste site group are most closely aligned with liquid waste disposal sites in the 100 Area because of their process history. These 200 Area waste sites will therefore be considered part of the Remaining Sites. The seven waste sites consist of ponds and trenches that received cooling water and sludge from fuel storage basins used as interim storage facilities for "green" irradiated fuel elements from the 100 Area nuclear reactors. Water was circulated through the basins to cool the fuel elements while decay of short-lived radionuclides occurred and discharged to percolation ponds. When activities at these facilities ceased in 1952, the fuel storage basins were rinsed clean to remove sludge and residual water that was discharged to trenches.

N2.2 WASTE SITE CONTAMINANTS

All the 100 Area reactor operations (except those in 100-N Area) were virtually identical, leading to similar releases of contaminants at similar waste sites (effluent disposal facilities, cribs, French drains, spills, pipelines, burn pits, solid waste sites, etc.) (EPA 1995). Limited field investigations at similar sites in different reactor areas showed similar contaminant characteristics in engineered structures and soils where liquid and solid wastes were disposed. Similar sites that received similar discharges are assumed to have similar types of contaminants of potential concern (COPCs). Process knowledge and any available data were used to identify COPCs for individual Remaining Sites.

Based on their functions in the reactor processes, facilities and their associated waste sites and contaminants in the 100 Area can divided into four categories:

- Reactor cooling water treatment and supply
- Reactor products and effluent handling
- Reactor support facilities
- Miscellaneous 100 Area activities indirectly supporting reactor area processes.

N2.2.1 Contaminants Introduced During Water Treatment

A continuous supply of high-quality cooling water was essential to reactor operations, preventing reactor core damage from the heat generated by fission reactions. Water obtained from the Columbia River was extensively treated before passing through the reactors as a once-through coolant. Settling, chemical treatment, filtering, and pH management were utilized to purify and prepare the water. Use and spillage of water treatment chemicals (sodium dichromate,

manganese compounds, copper compounds, alum, ammonium nitrate, sulfuric acid, and caustic soda) and their impurities (arsenic, mercury) resulted in the contamination of facilities and soil.

N2.2.2 Contaminants from Reactor Products and Effluent Handling

Cooling water circulated in a single pass through the process tubes of the first eight Hanford reactors and through tubes imbedded in the reactors thermal shield, biological shields, and horizontal control rods. The liquid, solid, and gaseous materials exiting the reactor buildings contained water treatment chemicals and radioactive contaminants. Transfer, discharge, and handling of irradiated and contaminated materials and equipment resulted in contaminants being spread to structural materials (concrete, metal, wood) and to environmental media (soil and groundwater).

The limited field investigation reports for the 100 Area source operable units (DOE-RL 1993a, 1993b, 1994b, 1994c, 1994d, 1994f, 1994g, 1995a [Appendices J and K], 1995c) reported the following COPCs:

- Radionuclides - americium-241 carbon-14, cesium-137, cobalt-60, europium-152, europium-154, nickel-63, plutonium-238, plutonium-239/240, radium-226, strontium-90, thorium-228, tritium, uranium-233/234, and uranium-238

- Nonradionuclide inorganics - antimony, arsenic, barium, cadmium, chromium, copper, lead, manganese, mercury, nitrate, nitrite, and zinc

- Nonradionuclide organics - trichloroethene, polychlorinated biphenyls (PCBs), and polyaromatic hydrocarbons (PAHs), including benzo(a)pyrene, chrysene, and pentachlorophenol.

N2.2.3 Contaminants from Support Facilities

Disposal of wastes from the support facilities for reactor operations contributed in many ways to the cleanup problems associated with the 100 Area Remaining Sites. Sanitary sewage from all operations was discharged to septic tanks. Investigations of the contents of several septic tanks have found heavy metals and (in one case) low levels of radioactivity, apparently due to decontamination of workers being done by washing in sinks and showers. Combustible wastes from all operations were routinely burned in burn pits until disposal of these materials in landfills began during the 1970's. Some burn pits remain devoid of vegetation today, more than 20 years after the practice of open burning ceased. Burning routinely included all nonradioactive, combustible wastes, including office wastes, paint, and chemical solvents. Laboratories that analyzed reactor process water, reactor effluent, reactor off gases, and other streams utilized numerous chemicals and produced effluents contributing to the contamination of French drains and other waste sites.

N2.2.4 Contaminants from Miscellaneous 100 Area Activities

The prior uses of some portions of the 100 Area were restricted to residential and light industrial activities. These areas, primarily in the 100-IU-2 and 100-IU-6 Operable Units, contain significant numbers of waste sites with various solid wastes, sanitary wastes, petroleum hydrocarbons, and chemical residues from pre-1950's household, farming, or light industrial disposal practices. Other miscellaneous activities include biological experimentation (limited to facilities in the 100-F Area) and military installations for defense and security of the Hanford Site.

N3.0 WASTE SITE CATEGORIZATION PROCESS

This section describes the waste site categorization process applied to the Remaining Sites. The waste site categorization process was developed and implemented by representatives of the Tri-Parties to define the regulatory path forward for all Remaining Sites that are identified in the WIDS database. The WIDS database is used by the Tri-Parties to inventory and track waste sites at the Hanford Site in accordance with Subsection 3.5 of the Tri-Party Agreement (Ecology et al. 1994).

N3.1 DESCRIPTION OF CATEGORIZATION PROCESS

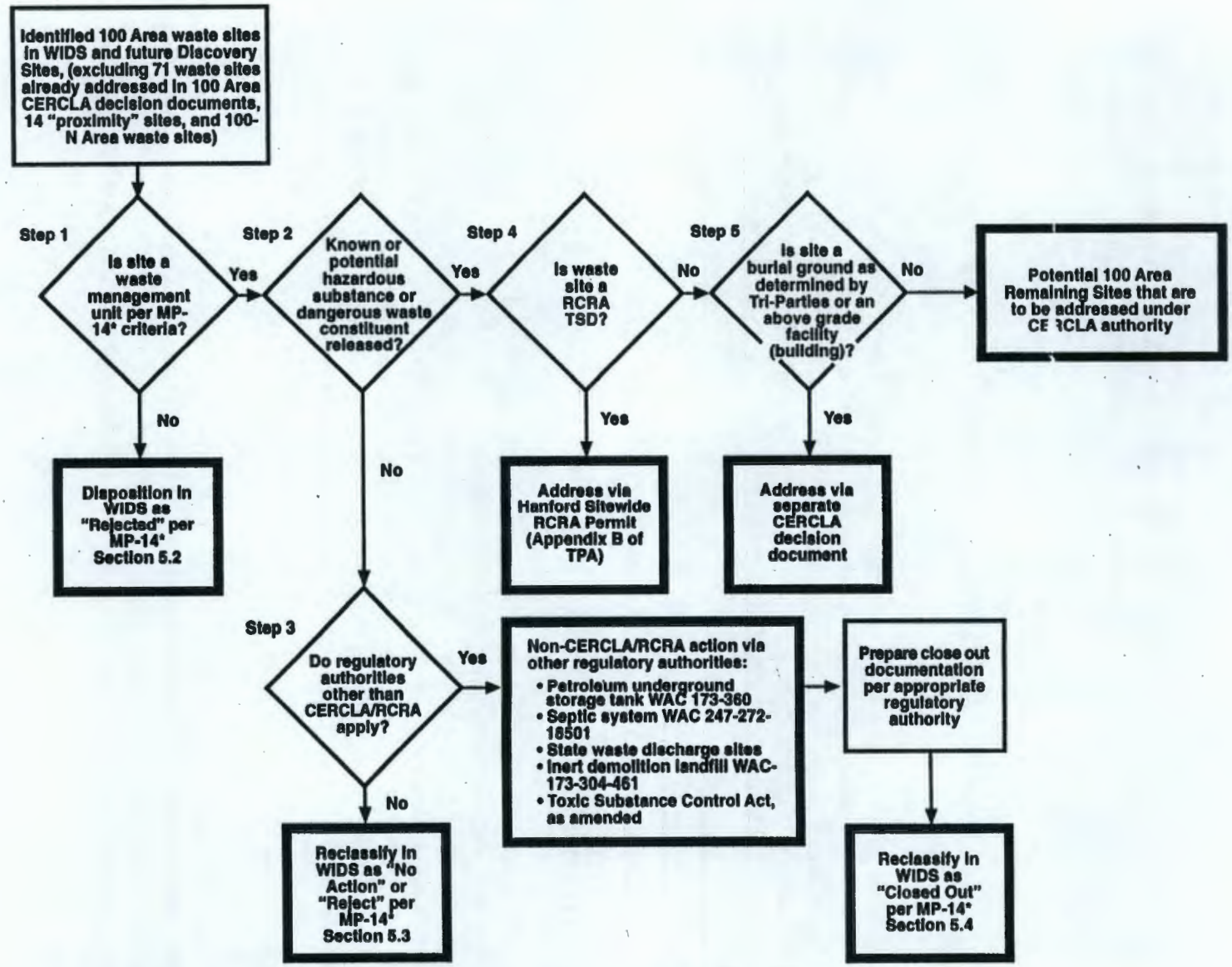
N3.1.1 Overview

The process used to categorize the Remaining Sites is summarized in Figure N-2. The process involved five steps, subjecting all Remaining Sites to a series of questions (shown in diamonds in Figure N-2). Depending on how each question was answered, each site was assigned to a particular endpoint or category (shown in boxes in Figure N-2). Table N-1 is a companion to Figure N-2, showing the results of the categorization process applied to the Remaining Sites. The categorization process is consistent with Tri-Party Agreement Handbook Management Guideline MP-14, "Maintenance of the Waste Site Information Data" (DOE-RL 1997).

N3.1.2 Scope

All Remaining Sites were subjected to the categorization process. All candidate waste sites were initially entered into WIDS with a "Discovery Site" classification. This WIDS classification was maintained until sufficient information was obtained to determine whether the site was a waste management unit per Tri-Party Agreement Handbook Management Guideline MG-14 (DOE-RL 1997).

Figure N-2. Remaining Sites Waste Site Categorization Process.



* TPA Handbook Procedure MP-14, Maintenance of the Waste Site Data System

Table N-1. Remaining Sites Categories.

Operable Unit	New CERCLA/ RCRA Past Practice Sites (Per This Document)	Remaining Sites Not Requiring CERCLA Action (Per This Document)				
		Rejected Sites	Sites Regulated Under Other Authorities	RCRA TSD Units	Burial Grounds	Facilities for D&D
100-BC-1	17	6	7	0	3	4
100-BC-2	12	3	0	0	8	2
100-DR-1	22	6	1	1	8	2
100-DR-2	13	4	3	1	11	3
100-FR-1	37	9	0	0	0	1
100-FR-2	8	2	0	0	8	0
100-HR-1	20	5	1	1	0	1
100-HR-2	6	4	1	0	5	1
100-KR-1	1	0	0	0	0	0
100-KR-2	32	13	9	4	2	37
100-IU-2	20	40	2	0	0	0
100-IU-6	12	13	3	0	0	0
200-CW-3	7	0	0	0	0	0
Totals	**207**	**105**	**27**	**7**	**45**	**51**
Remaining Sites Grand Total: 442 sites						

Newly discovered waste sites may be identified after a Remaining Sites ROD or subsequent decision documentation is signed and after the Hanford RCRA Permit is modified to include the sites that are presented in Tables NA-1 and NA-2. It is the expectation of the Tri-Parties that they will undergo the same categorization process consistent with Guideline MP-14 to determine their disposition.

N3.1.3 Stepwise Process

Step 1 of the categorization process asks the question: "Is the site a waste management unit per Tri-Party Agreement Handbook Management Guideline MP-14 criteria?" Those sites determined not to be waste management units were placed in the "Rejected" category. This category indicated that candidate waste sites had been determined by the Tri-Parties to not contain hazardous substances and, therefore, to not pose a risk to human health and the environment. As a result, these sites are not waste management units and not within the scope of the Tri-Party Agreement. Sites determined to be waste management units were classified as "Accepted" in WIDS. All Remaining Sites classified as "Accepted" were subjected to Steps 2

through 5 to identify those Remaining Sites that would be addressed in a CERCLA/RCRA Past Practice decision document.

Step 2 asks the question: "Were known or potential hazardous substances or dangerous wastes or constituents released or potentially released at the site?" Remaining Sites accepted as waste management units in WIDS may be later determined to have received no known or potential hazardous substances or dangerous wastes or constituents. These sites will not be addressed through the CERCLA/RCRA Past Practice process and will be addressed in Step 3. If a known or potential hazardous substance or dangerous waste or constituent had been released or potentially released at a site, the site will be addressed in Step 4.

Step 3 asks the question: "Do other regulatory authorities apply?" Some sites should be addressed through a regulatory authority other than CERCLA/RCRA Past Practice, such as the *Washington Administrative Code* (WAC) septic system regulations (WAC 247-272-18501), or the WAC petroleum underground storage tanks regulations (WAC 173-360), etc., as described in Figure N-2. If no other authority was recognized, these sites were reclassified as "Rejected" in WIDS. If, however, other regulatory authorities did apply, the sites were dispositioned to a non-CERCLA/RCRA authority. Following future completion of actions required by the non-CERCLA/RCRA regulatory authorities, such sites can be categorized as "Closed Out" in the WIDS database after preparation and agreement on documentation with the appropriate regulatory authorities.

Step 4 asks the question: "Is the waste site a RCRA TSD unit?" All sites that are TSD units are addressed in accordance with RCRA. All TSD units will be addressed under the *Hanford Facility Resource Conservation and Recovery Act Permit for Treatment, Storage, and Disposal of Dangerous Waste* (Hanford Sitewide Permit), but may be integrated with actions taken under CERCLA/RCRA Past Practice. All sites that are not TSD units will be addressed in Step 5.

Step 5 asks the question: "Is the site a burial ground as defined by the Tri-Parties Burial Ground Task Team or an above-grade facility (building)?" Those sites that are solid waste burial grounds or above-ground facilities (structures and buildings) will be addressed via separate CERCLA/RCRA Past Practice decision documents. The Tri-Parties have agreed to disposition 100 Area burial grounds in a separate Proposed Plan and ROD. The 100 Area burial grounds are sites that were used for near-surface disposal of heterogeneous solid wastes containing hazardous constituents (radioactive and/or nonradioactive). The burial grounds are significantly different from other 100 Area waste sites because they are typically larger and were principally used for disposal of irradiated equipment from the reactors. Also, the burial grounds did not receive contaminated liquids or soil that could be mobilized to contaminate environmental media. The Tri-Parties have decided that the nature and extent of burial grounds supports the need for a thorough evaluation of remedies in addition to Remove/Treat/Dispose to determine if more appropriate remedies exist for these types of waste sites.

Intact structures and buildings that contain hazardous substances are planned to be decontaminated and decommissioned and removed through preparation of appropriate engineering evaluation/cost analyses under CERCLA/RCRA Past Practice. While the cleanup, demolition, and removal of structures and buildings will be addressed in separate documents, the schedule and sequence of these activities will be integrated with the remediation of the 100 Area

Remaining Sites because, in many cases, waste site remedial action can occur only after structures and buildings are removed.

All waste sites that either are not burial grounds or above-grade facilities are waste sites to be addressed under CERCLA/RCRA Past Practice authority. These include eight active waste management units where hazardous substances have been potentially released or a substantial threat of a release of a hazardous substance exists. While these units are currently in service supporting RL project activities, they will be taken out of service by RL when the project mission for these units has been completed. Transition of active units to the RL Environmental Restoration Program will occur when specific end-point close-out verification criteria have been agreed to by the transferring and accepting RL programs. Following transition to the Environmental Restoration Program, each of the active units will be addressed under CERCLA/RCRA Past Practice authority.

N3.2 RESULTS OF CATEGORIZING REMAINING SITES

Subjecting the 100 Area Remaining Sites to the waste site categorization process presented in Figure N-2 resulted in waste sites being assigned to the following groupings:

- Sites classified or reclassified as "Rejected" in WIDS
- Sites for non-CERCLA/RCRA action under via other regulatory authorities
- RCRA TSD units
- Burial grounds
- Above-grade facilities (buildings) and structures for D&D
- New CERCLA/RCRA Past Practice Sites (per this document).

A total of 442 waste sites were reviewed and categorized. The results of this process are summarized numerically in Table N-1. The 100 Area Remaining Sites to be addressed under CERCLA/RCRA Past Practice are listed in Attachment NA, Tables NA-1 and NA-2. These sites are the subject of discussion in Section N4.0 of this document, which describes the remedy selection process. Complete listings of the 442 Remaining Sites are presented in Attachment NC by operable unit (Table NC-1) and by category (Table NC-2). The Remaining Sites include seven waste management units from the 200-CW-3 waste site group in the 200 Areas. These waste management units have been determined by the Tri-Parties to have a process history most closely aligned with liquid waste disposal sites in the 100 Area, as discussed in Section N2.1.8. Therefore, these units are being addressed under CERCLA/RCRA Past Practice with the Remaining Sites.

N3.3 SUMMARY OF SITE RISK

Potential risks to human health and ecological receptors have been evaluated in qualitative risk assessments for some individual waste sites in the 100 Areas. Where remedial investigation results are not available, potential risks were evaluated by comparison to analogous sites with similar process history, similar environmental media, similar waste material, and similar contaminants. As discussed in the *100 Area Source Operable Unit Focused Feasibility Study*

Report (DOE-RL 1995a), the EPA, Ecology, and DOE designated high- or medium-priority waste sites within the 100 Areas as requiring remediation. The following paragraphs discuss the results of applying the evaluation methods of the Focused Feasibility Study Report to the 100 Area waste sites. The results of these evaluations show that remedial measures are warranted at 46 of the 207 Remaining Sites to be addressed by CERCLA/RCRA authority.

The remediation goals for the 100 Area Remaining Sites will be consistent with ARARs or To Be Considered (TBC) requirements established in previous 100 Area soil cleanup decisions and will include, but are not limited to, the following requirements:

- Attainment of the EPA human health guidance limit of 15 mrem/yr above natural background for radiation (EPA 1997b)
- Compliance with soil cleanup standards for chemicals in Model Toxics Control Act (MTCA) Method A or B
- Ensure that contaminants leaching from soils do not cause groundwater to exceed maximum contaminant levels (drinking water standards)
- Ensure that contaminants leached from soils do not cause surface waters to exceed ambient water quality criteria (river protection standards).

N3.3.1 Human Health Risk

Contamination detected or known to exist at waste sites poses the potential for increased human health risk to future site users. The level of potential health risk posed by contaminants differs depending upon the future site use. Two future site use scenarios were evaluated in the qualitative risk assessments: an occasional use scenario, which corresponds to a recreational use, and a frequent use scenario, which corresponds to a residential use. In either case, future users could be exposed to contaminants in soil through ingestion of soil, inhalation of wind-blown dust, or external exposure to radiation.

Based on the qualitative risk assessments, the contaminants in 100 Area soil providing the highest contribution to potential increased human health risks include heavy metals (chromium, lead, and zinc); various radionuclides including cesium-137, cobalt-60, strontium-90, and europium-152; and organic compounds such as PCBs and PAHs. Environmental media and waste material contaminated by these constituents include soil, metallic waste, concrete, asbestos, and miscellaneous debris. Depth of contamination varies from surface soils to structures such as cribs and reverse wells with potential for much deeper contamination. The 46 waste sites shown in Table NA-1 are considered by the EPA, Ecology, and DOE to have sufficient analytical or analogous data to conclude that these contaminants exist at concentrations above remediation goals and thus pose a risk to human health and the environment.

Table N-2 provides a comparison of representative maximum contaminant levels with the preliminary remediation goals in soil for contaminants of concern. The preliminary remediation goals in this table generally represent a 1×10^{-6} risk level or hazard index of 1 for unrestricted land use. Representative maximum contaminant levels are presented for five waste sites in the

100-DR-1, 100-DR-2, and 100-FR-1 Operable Units. These data were taken from the qualitative risk assessments for waste sites 100-D-4, 100-D-12, 100-D-31, 116-D-5, and 116-D-5, identified in Section 7 of the *100 Area Source Operable Unit Focused Feasibility Study Report* (DOE-RL 1995a). Comparison of these data to the preliminary remediation goals in Table N-2 indicates that the risks to future site users would be expected to be above the risk range of 1×10^{-4} to 1×10^{-6} and above a hazard index of 1. Calculation of site risk from these data shows that these contamination levels present an average risk of 7.2×10^{-3}, which is considered a conservative average of the risk at these sites. This shows that remedial action is necessary at these sites.

Table N-2. Comparison of Representative Waste Site Concentrations with Preliminary Remediation Goals in Soil.

Contaminant	Representative Waste Site Concentrations[a]	Preliminary Remediation Goals[b]
Heavy metals		
Arsenic	12.4 mg/kg	6.5 mg/kg
Chromium (VI)	73.4 mg/kg	2.2 mg/kg
Lead	574 mg/kg	353 mg/kg
Radionuclides		
Cesium-137	75 pCi/g	6.2 pCi/g
Cobalt-60	46 pCi/g	1.4 pCi/g
Strontium-90	360 pCi/g	4.5 pCi/g
Europium-152	460 pCi/g	3.3 pCi/g
Organic compounds		
PCBs	2.4 mg/kg	1.0 mg/kg
PAHs	0.48 mg/kg	0.33 mg/kg

[a]Data for individual contaminants were obtained from qualitative risk assessment reports prepared for individual 100 Area waste sites identified in Section 7 of the *100 Area Source Operable Unit Focused Feasibility Study Report* (DOE-RL 1995a).
[b]From Table 2-7 of the *Remedial Design Report/Remedial Action Work Plan for the 100 Area* (DOE-RL 1998). The PCB value is based upon MTCA A (WAC 173-340).

PAH = polyaromatic hydrocarbon
PCB = polychlorinated biphenyl

N3.3.2 Ecological Risk

Ecological risks from the 100 Area Remaining Sites were estimated by evaluating potential impacts to the Great Basin pocket mouse. Where remedial investigation results were not available, ecological risks were evaluated by comparing 100 Area waste sites to analogous sites with similar characteristics. Risks to the mouse were estimated assuming the food pathway was the primary route of exposure to both radionuclides and inorganic/organic contaminants. An Environmental Hazard Quotient (EHQ) equal to or greater than 1.0 was considered to indicate that individual mice were at risk.

Nearly all of the radiological risk (EHQ > 1.0) to the mouse at the 100 Area waste sites was attributable to strontium-90, although cobalt-60 also exceeded an EHQ of 1.0 at some sites. Comparison to analogous sites indicates that the risk estimates to the Great Basin pocket mouse due to exposure to heavy metals and various organic contaminants at selected sites would also exceed an EHQ of 1.0.

N4.0 REMEDY SELECTION PROCESS: THE PREFERRED REMEDY

An Interim Remedial Action ROD (EPA 1995) was issued in September 1995 for 37 high-priority waste sites in the 100-BC-1, 100-DR-1, and 100-HR-1 Operable Units to address actual or threatened contaminant releases at those sites. Subsequently, a ROD Amendment (EPA 1997a) was issued in April 1997 to increase the scope of the selected remedy to include 34 additional waste sites in the 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1, 100-HR-1, 100-KR-1, and 100-KR-2 Operable Units that had received waste discharges similar to those sites addressed in the September 1995 ROD. The selected remedy for these 71 sites is the Remove/Treat/Dispose Alternative.

In addition to the 71 ROD and ROD Amendment sites, the Tri-Parties also applied the remedy to 14 "proximity sites," waste sites that are adjacent to and within the area required for remediation of some of the 71 sites. The 71 ROD and ROD Amendment sites combined with the 14 "proximity" sites make a total of 85 waste sites (designated as the 100 Area ROD Sites for the purposes of this section) that will be remediated using the Remove/Treat/Dispose Alternative.

The sites described in Table NA-1 were determined to have sufficient analytical or other data to conclude that contamination exists above remediation goals. The Tri-Parties are proposing that the preferred remedy for these 46 waste sites is the Remove/Treat/Dispose Alternative. These sites are in the 100-BC-1, 100-DR-1, 100-DR-2, 100-FR-1, 100-FR-2, 100-HR-1, 100-KR-2, and 100-IU-6 Operable Units.

N4.1 DESCRIPTION OF THE REMOVE/TREAT/DISPOSE ALTERNATIVE

The Remove/Treat/Dispose Alternative, as it is being currently implemented in the 100 Area, generally includes the following steps:

- Remove contaminated soil, structures, and debris from 100 Area source waste sites using the "observational approach." The observational approach utilizes analytical screening during remediation to guide the extent of excavation (EPA 1995). Remediation proceeds until it can be demonstrated through a combination of field screening and sampling that cleanup goals have been achieved.

- Treat the waste as required to meet applicable waste disposal criteria.

- Dispose of contaminated materials in the Environmental Restoration Disposal Facility (ERDF).

- Backfill excavated areas and revegetate.

Interim remedial measures are being conducted at the 71 waste sites and 14 proximity sites to reduce potential future threats to human health and the environment from these waste sites. The depth of remediation may take into account appropriate site-specific balancing factors including reduction of risk by decay of short-lived (half-life less than 30.2 years) radionuclides (EPA 1995), protection of human health and the environment, remediation costs, sizing of the ERDF, worker safety, presence of ecological and cultural resources, the use of institutional controls, and long-term monitoring costs. The DOE will control access and use of the Hanford Site for the duration of the cleanup. Institutional controls and long-term monitoring is required for sites where wastes are left in place above cleanup levels. It is expected that no additional remedial measures will be required at these sites.

N4.2 REMEDIAL ACTION OBJECTIVES AND REMEDIATION GOALS

Remedial action objectives for implementation of this alternative were delineated in Section VII of the 1995 ROD. These objectives are summarized below:

- Protect human and ecological receptors from exposure to contaminants in soils, structures, and debris by dermal exposure, inhalation, or ingestion of radionuclides, inorganics, or organics.

- Control the sources of groundwater contamination to minimize the impacts to groundwater resources, protect the Columbia River from further adverse impacts, and reduce the degree of groundwater cleanup that may be required under future actions.

- To the extent practicable, return soil concentrations to levels that allow for unlimited future use. Where it is not practicable to remediate to levels that will allow for unrestricted use in all areas, institutional controls and long-term monitoring will be required.

The final land use for the Hanford Site has not been established. The 1995 ROD (EPA 1995) established that the remedial action objectives are for "unrestricted use," and this goal is assumed for the Remaining Sites remedy selection process as well. Remedial action objectives and cleanup goals will be reevaluated if future land use and groundwater use determinations are inconsistent with current goals.

N4.3 ESTIMATED COSTS OF REMOVE/TREAT/DISPOSE

Costs have been estimated for Remaining Sites that are to be addressed under CERCLA/RCRA Past Practice authority. Sites proposed for remediation using the preferred remedy, Remove/Treat/Dispose, were estimated using the Micro-Computer Aided Cost Estimating System (MCACES). A detailed explanation of the models used to generate the cost estimates, including a discussion of cost elements and assumptions, is presented in Attachment NB. Resulting cost estimates are summarized in Attachment NB.

The total estimated remediation costs for those sites proposed for Remove/Treat/Dispose is $25,859,176. Cost estimates are considered to be accurate within a range of +50% to -30% of actual remediation costs for individual sites.

N5.0 REMEDY SELECTION PROCESS: USE OF THE PLUG-IN APPROACH

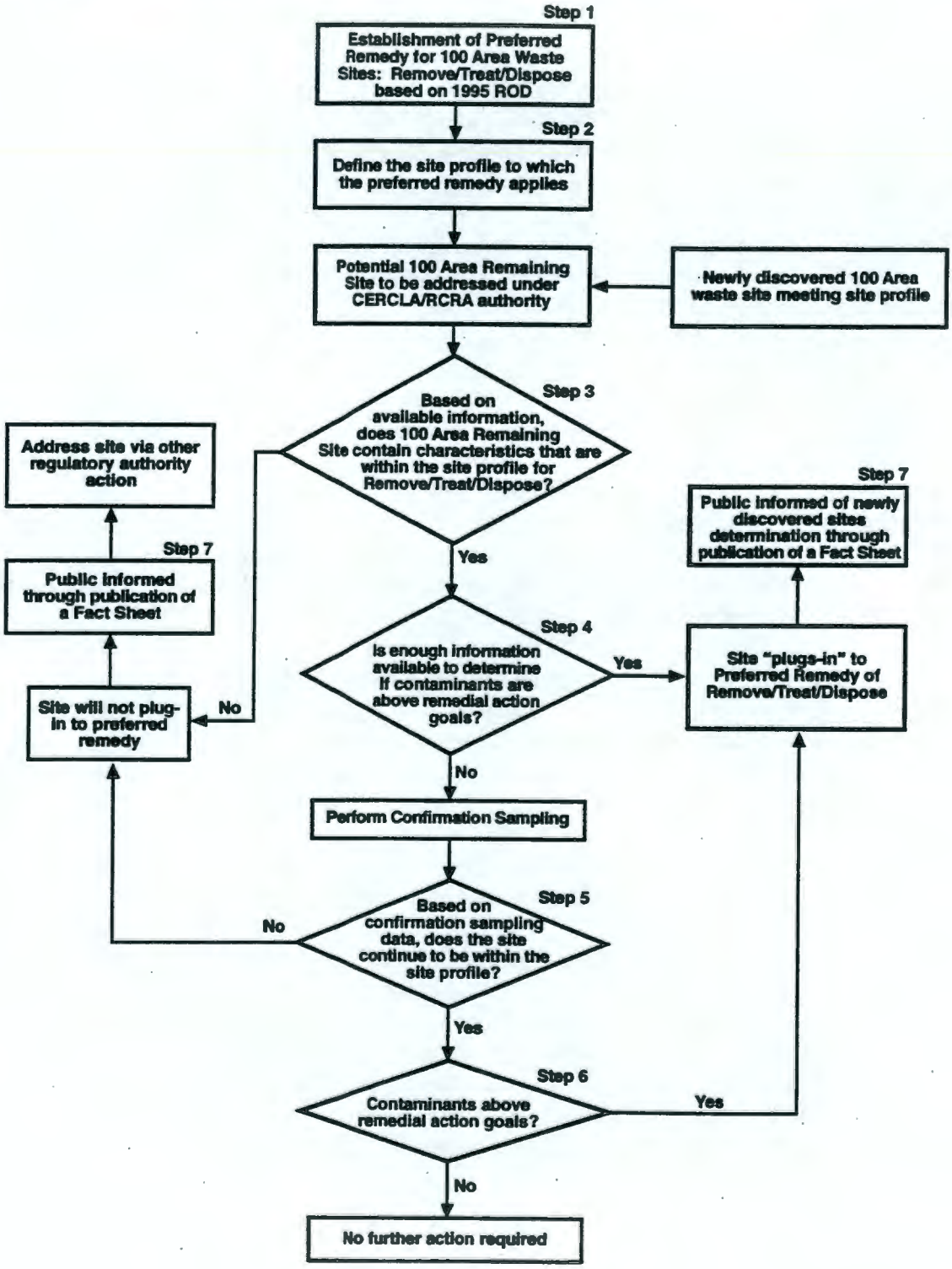
The remedy selection process for the Remaining Sites will use an innovative approach called the Plug-In Approach to enhance the efficiency and effectiveness of remedial actions. This approach is summarized in Figure N-3. The Plug-in Approach allows multiple, similar, but separate sites at a facility to make use of the same remedy. Under this approach, the agencies select a preferred remedy that applies to a given set of characteristics at a number of sites rather than to an individual waste site. The Tri-Parties have determined that all the sites in Table NA-2 are candidates for plug-in to the preferred remedy of Remove/Treat/Dispose by comparing physical and chemical characteristics of a waste site to a "site profile" to which the preferred remedy applies.

Candidate sites that contain concentrations of contaminants exceeding remediation goals may be remediated or "plugged-in" using the preferred remedy. In this manner, cleanup actions at candidate sites can proceed without reevaluating the same remedy through the entire CERCLA/RCRA Past Practice process (i.e., through development of separate remedial investigation/feasibility studies, proposed plans, and RODs). If the comparison shows that the site meets the remediation goals, the site will require no further action under CERCLA/RCRA Past Practice. For sites that cannot be "plugged-in" to the preferred remedy due to differing characteristics, remedial actions will be determined through an appropriate regulatory authority. Note: It is believed that all 100 Area CERCLA/RCRA Past Practice waste sites can be "plugged-in" to the preferred remedy.

N5.1 SITE PROFILE FOR PLUG-IN OF REMAINING SITES

The next element needed for use of the Plug-in Approach is a site profile that will determine which sites may plug-in to the preferred remedy. Sites must be physically and chemically similar to those for which Remove/Treat/ Dispose has been previously selected. If the characteristics of the 100 Area Remaining Site match these predefined characteristics, and contaminant concentrations exceed remediation goals, the site can be plugged-in to the preferred remedy.

Figure N-3. Application of the Plug-in Approach to Remaining Sites.



N5.1.1 Site Profile Characteristics

The characteristics that form the basis for similarity for each Remaining Site are identified below:

- Type of contaminants (radiological, chemical)
- Type of contaminated environmental media (soil)
- Type of contaminated waste material (concrete, metal, wood).

Specific contaminants, media, material, and depth characteristics contained in the earlier 100 Area ROD Sites were tabulated from information contained in Appendices E through M of the Process Document (DOE-RL 1995a). Examples of common contaminants at these sites include heavy metals; radionuclides such as cesium, cobalt, strontium, and europium; and various organic constituents. Environmental media and waste material contaminated by these constituents include soil, metallic waste, concrete, asbestos, and miscellaneous debris. Depth of contamination at 100 Area ROD Sites varied from surface structures with superficial contamination to structures such as cribs and reverse wells with potential for much deeper contamination. The Remaining Sites characteristics shown in Tables NA-1 and NA-2 are considered by the Tri-Parties to be similar to those in the 100 Area ROD Sites and to fit the site profile for the preferred remedy of Remove/Treat/Dispose. Characteristics of the 100 Area burial grounds have been developed by the Tri-Party Burial Ground Task Team and are summarized in Section N3.1.3 of this document.

N5.1.2 Determination of Site Plug-In to Preferred Remedy

The determination that a Remaining Site can plug-in to the preferred remedy was based on the above site profile characteristics. Some or all of the contaminants or affected media or material at a Remaining Site may not be the same as those described for the earlier ROD sites. However, given the nature of the contaminants, media, or material, the Tri-Parties have determined that the characteristics of the sites are consistent with the 100 Area ROD Sites such that they would be candidates for the preferred remedy of Remove/Treat/ Dispose.

Where not enough information is available on a Remaining Site to define the type of contaminant, media, or material present, but where it is anticipated to meet the site profile, a determination has been made by the Tri-Parties that the site will be a candidate to plug-in to the preferred remedy contingent upon the acquisition of further information. Although it is considered to be unlikely, should information be obtained during remedial design or actual remediation for any of the Remaining Sites that fall outside the site profile characteristics, the remediation of that site will be reevaluated under an appropriate regulatory process.

N5.1.3 Sampling Sites

Sampling is expected to be required for a significant number of 100 Area Remaining Sites for which there is not sufficient existing information for the Tri-Parties to determine if remediation goals are exceeded. These sites are listed in Table NA-2. When sufficient additional information is obtained through sampling, the sites will either be plugged-in to the preferred remedy or closed out without remedial action, provided that data show that the site is not contaminated above remediation goals. Should the additional data show that the site contains contaminants, contaminated media, or other physical characteristics that fall outside the site characteristic profile, and will not plug-in to the preferred remedy, the Tri-Parties will reevaluate the site through a separate regulatory process. Sites that could be regarded as clean, based on earlier determinations (e.g., facility demolition sites closed on the basis of previous radiological contaminant level calculations and burn pits where soil gas testing found no solvents), are expected to undergo sampling. If contaminants of concern exceed remediation goals, these sites would also be remediated using the preferred remedy.

N5.2 ESTIMATED COSTS FOR SAMPLING AND PLUG-IN OF REMAINING SITES

Costs have been estimated for Remaining Sites that are to be addressed under CERCLA/RCRA Past Practice authority. Cost estimates for sites requiring sampling were developed using a Microsoft (a registered trademark of Microsoft Excel spreadsheet. A detailed explanation of the models used to generate the cost estimates, including a discussion of cost elements and assumptions, is presented in Attachment NB. Resulting cost estimates are summarized in Attachment NB. Estimated data acquisition costs for those sites requiring sampling is $12,228,024.

The final estimated cost for addressing all Remaining Sites is dependent upon the number of Remaining Sites requiring sampling that, through collection of additional data following a CERCLA/RCRA Past Practice decision document, are determined to have contaminant concentrations that exceed remediation goals. Such sites will be "plugged-in" to the preferred remedy, be remediated using the preferred remedy and, as a result, will incur costs in addition to sampling costs.

At this time, it is not possible to determine what proportion of sites requiring sampling will also require remediation using the preferred remedy. However, an assessment of the likelihood of individual sampling sites being contaminated indicates that the number will not exceed 20% of the total number of Remaining Sites requiring sampling. If 20% of the sites requiring sampling are subsequently determined to also require remediation using the preferred remedy, it is estimated that such actions would result in additional costs of $17,988,992.

N5.3 TOTAL ESTIMATED COSTS FOR REMAINING SITES

Therefore, the total costs for Remaining Sites (excluding burial grounds and 100-N Area sites) to be addressed under CERCLA/RCRA Past Practice authority is estimated to be $56,136,192, which is the sum of the following estimated costs:

- Costs for sites proposed for remediation using the preferred remedy ($22,859,176)
- Costs for sites requiring sampling ($12,228,024)
- Costs for that portion of sampling sites (assumed to be 20%) that are subsequently determined to also require remediation using the preferred remedy ($17,988,992).

N5.4 PETROLEUM REMEDIATION SITES

Petroleum sites are exempt from CERCLA/RCRA Past Practice statutory requirements. If present in the 100 Areas, as verified through sampling, petroleum sites will be remediated to meet the cleanup standards established by the State of Washington MTCA Cleanup Regulations (WAC 173-340). While petroleum site remediation does not require an alternatives analysis and remedy selection process under CERCLA authority, they are included in the 100 Area Remaining Sites evaluation to inform the public of remedial actions planned at these sites. The candidate petroleum sites that are included as part of the 100 Area Remaining Sites (Table NA-2) are anticipated to be relatively shallow sites that can be remediated using the preferred remedy of Remove/Treat/Dispose where MTCA cleanup standards are exceeded. However, should further investigation of these sites through sampling conclude deep contamination or contamination to groundwater, the Tri-Parties will reevaluate other potential remedial alternatives. Should sampling conclude that CERCLA/RCRA Past Practice contaminants are also present at a petroleum site, they will be managed using the CERCLA Plug-in Approach.

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Appendix H, *100-FR-1 Operable Unit Focused Feasibility Study Report*, Draft Rev. 0

Appendix I, *100-BC-2 Operable Unit Focused Feasibility Study Report*, Draft Rev. 0A

Appendix J, *100-DR-2 Operable Unit Focused Feasibility Study*, Rev. 0

Appendix K, *100-KR-2 Operable Unit Focused Feasibility Study*, Draft A. (Includes the 100-KR-2 Limited Field Investigation as Attachment 1.)

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WHC, 1993, *Qualitative Risk Assessment of the 100-DR-1 Source Operable Unit*, WHC-SD-EN-RA-005, Rev. 0, Westinghouse Hanford Company, Richland, Washington.

ATTACHMENT NA

TABLES OF REMAINING SITES TO BE ADDRESSED UNDER CERCLA/RCRA PAST PRACTICE

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TABLES OF REMAINING SITES TO BE ADDRESSED UNDER CERCLA/RCRA PAST PRACTICE

TABLES

NA-1. Action Sites for Remove/Treat/Dispose NA-1
NA-2. Action Sites for Confirmation Sampling NA-8

Table NA-1. Action Sites for Remove/Treat/Dispose. (7 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Volume for Disposal (LCY [a])	Estimated Cost of Site Remediation
100-BC-1	116-B-7 (1904-B1 Outfall Structure)	Received B Reactor process effluent for discharge to pipelines to the Columbia River. Site consists of an open concrete sump and a concrete spillway from the sump to the river shoreline. Currently enclosed with aviary exclusion wire and cyclone fence. Spillway has been covered with soil to an unknown depth. Outfall structure is 8.2 x 4.3 x 6.4 m deep (27 x 14 x 21 ft deep). (References: Carpenter 1994; DOE-RL 1992e, 1994e; EPA 1996)	Concrete, soil	Cs-137, Co-60, Eu-152, Eu-154, Eu-155, H-3, Ni-63, Sr-90	494	$229,585
	128-B-3 (Coal Ash and Demolition Waste Site)	Formerly used for burning nonradioactive, combustible wastes and disposal of solid building demolition waste. Chemical-stained soil and stressed vegetation visible along the river banks. Vegetation-covered depression 137.2 x 18.3 m (450 x 60 ft). Operated 1944-1968. This site includes former waste site 600-57. (References: Carpenter 1994, DOE-RL 1992e, EPA 1996)	Soil, construction debris	Undetermined organic and inorganic chemicals	17,250	$2,056,748
	132-B-6 (1904-B2 Outfall Structure)	Received B Reactor effluent for discharge to effluent pipelines to the Columbia River. Concrete outfall structure and spillway reduced to grade and covered with clean soil. Underground 1.7-m (66-in.) effluent discharge line remains in place. Operated 1954-1969. Surface radionuclide contamination is reported to be present. Site is 8.2 x 4.3 m (27 x 14 ft); total depth assumed to be 6.4 m (21 ft); overburden depth unknown. (References: Carpenter 1994; DOE-RL 1992e, 1994e; EPA 1996)	Concrete, soil	Cs-137, Co-60, Eu-152, Eu-154, Eu-155, H-3, Ni-63, Sr-90	446	$226,298
	132-C-2 (1904-C Outfall Structure)	Received C Reactor effluent and process sewer effluent for discharge effluent pipelines to the Columbia River. Concrete outfall structure and spillway reduced to grade and covered with clean soil. Operated 1952-1969. Surface radionuclide contamination is reported to be present. Site is 16 x 8.2 x 6.4 m deep (52 x 27 x 21 ft deep); overburden depth unknown. (References: Carpenter 1994; DOE-RL 1992e, 1994e; EPA 1996)	Concrete, soil	Cs-137, Co-60, Eu-152, Eu-154, Eu-155, H-3, Ni-63, Sr-90	1,536	$399,619
100-DR-1	100-D-1 (Contaminated Storm Drain)	Received radioactive and hazardous liquid waste leakage from 116-D-7 (107-D) retention basin. Site is a concrete storm drain system, 1 x 1 m (3.3 x 3.3 ft) box (depth unknown) covered with steel plate. It is attached to underground 22.5-cm (9-in.) piping running from the south side of the patrol road to the 1904-D Outfall. (References: Carpenter 1993, EPA 1996)	Concrete, steel, soil	Undetermined radionuclides (beta and gamma)	75	$151,201
	100-D-2 (Lead Sheeting)	Lead sheeting was not removed from concrete pad when pad was buried during demolition of 190-D Building in 1995. Located near the 190-D Annex, 1.2 x 1.2 m (4 x 4 ft). Purpose unknown. (References: Carpenter 1993, EPA 1996)	Lead, concrete	Pb	1	$19,298
	100-D-3 (Silica Gel Burial Site)	Received silica gel from the 115-D/DR drying towers. May also be the site of the 100-D Pluto Crib. Potentially contaminated with radioactive and hazardous materials. Site is in a vegetation-free graveled lot; site dimensions are unknown. (References: Carpenter 1993, EPA 1996)	Soil, silica gel	C-12, radionuclides, inorganic, organic chemicals	477	$188,527

Table NA-1. Action Sites for Remove/Treat/Dispose. (7 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Volume for Disposal (LCY [a])	Estimated Cost of Site Remediation
100-DR-1 (cont.)	100-D-19 (Sludge Trench near 116-D-7)	Received reactor process effluent containing radioactive and hazardous contaminants from the 116-D-7 (107-D) retention basin during fuel cladding failures. Dimensions unknown. (References: Carpenter 1993, DOE-RL 1992b, WHC 1993)	Soil	Co-60, Cs-137, Eu-152, Eu-155, U-238, Cr VI	8,202	$1,075,555
	100-D-31 (Process Sewer System)	Carried water treatment waste and rainwater runoff to outfall 116-D-5 until 1977. The process sewer drainage was diverted solely to the 120-D-1 100-D Ponds from 1977 to 1994. Site does not include process sewer for reactor facilities or reactor process effluent. Dimensions unknown. (Reference: WIDS)	Concrete, steel, soil	Cr, Hg, undetermined radionuclides and organic chemicals	5,547	$2,386,452
	116-D-5 (1904-D Outfall Structure)	Received reactor process effluent from the 116-D-7 retention basin from 1944 to 1975. Also received process waste water from 183-D, 184-D, 190-D, 185/189-D, and other miscellaneous facilities. Located 122 m (400 ft) west of the 116-D-7 retention basin on the bank of the Columbia River. The structure is 18.3 x 7.3 m (60 x 24 ft); depth unknown. (References: Carpenter 1993; DOE-RL 1992b, 1994g; EPA 1996; WHC 1993)	Concrete, steel, soil	C-14, Cs-137, Sr-90, U-235, U-238, Pu-239/240, undetermined inorganic chemicals	1,633	$391,615
	116-DR-5 (1904-DR Outfall Structure)	Received reactor process effluent from the 116-DR-9 retention basin. Located 91 m (300 ft) north of the northwest corner of the 107-D retention basin. Structure is 8.2 x 4.3 m (27 x 14 ft); depth unknown. (References: Carpenter 1993; DOE-RL 1992b, 1994g; EPA 1996; WHC 1993)	Concrete, steel, soil	C-14, Cs-137, Sr-90, U-235, U-238, Pu-239/240, undetermined inorganic chemicals	442	$213,890
	120-D-2 (186-D Waste Acid Reservoir)	Designated as a waste site because lead flashing was not removed when the facility was demolished in place in 1979. Located at the northeast corner of the 186-D Building; 28 x 28 x 4 m deep (92 x 92 x 14 ft deep) pit constructed of acid-proof brick, waterproof membrane, vitrified pipe, #8 lead flashing, and gunnite. Facility never used (no records found to document use). (References: Carpenter 1993, EPA 1996)	Brick, lead	Pb	7,022	$2,058,138
100-DR-2	100-D-12 (Sodium Dichromate and Acid Unloading Station)	Received sodium dichromate and sulfuric acid solutions in water from flushing and draining of hoses and pipelines connected to railcars and trucks for unloading. Test pits during the 100-DR-2 Limited Field Investigation (LFI) (DOE-RL 1995c, p. D-78) found chromium VI and radionuclides above Hanford Site background. Dimensions unknown. Has adjacent 0.9-m- (3-ft) diameter french drain. (References: Carpenter 1993, DOE-RL 1995c)	Concrete, steel, soil	Cs-137, Eu-152, Th-228, Sulfate, Cr VI	579	$196,177
	116-D-8 (100-D Cask Storage Pad)	Concrete pad and two associated French drains contaminated by radionuclides, potassium borate, and other inorganic chemicals. Dimensions unknown. (References: Carpenter 1993, EPA 1996)	Concrete, steel, soil	Cs-137, Eu-152, Th-228, U-238	5,957	$902,645
	116-DR-7 (Inkwell Crib)	Received liquid potassium borate solution contaminated with radionuclides. Site is 1.5 x 1.5 x 3 m deep (5 x 5 x 10 ft deep). One or two 2,082-L (550-gal) storage tanks may also be buried at the site. (References: Carpenter 1993, EPA 1996)	Soil	Cs-137, Eu-152, Th-228, U-238	163	$146,689

Table NA-1. Action Sites for Remove/Treat/Dispose. (7 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Volume for Disposal (LCY [a])	Estimated Cost of Site Remediation
100-FR-1	116-F-8 (1904-F Outfall Structure)	Received reactor process effluent from the 116-F-14 retention basin. Demolished concrete structure formerly 8.2 x 4.3 x 7.9 m deep (27 x 14 x 26 ft deep). Area is marked with underground radioactive contamination warning signs. Lower part of spillway is exposed and intact. (References: Deford 1994; DOE-RL 1992a, 1994d; EPA 1996)	Concrete, soil, steel	Co-60, Eu-152, Eu-154, Eu-155	402	$230,601
	116-F-15 (108-F Radiation Crib)	Concrete sump in the ground floor of the 108-F Radiobiology Laboratory. Received drainage from lab floor and hood drains. Sump is 0.9 x 0.9 x 0.9 m deep (3 x 3 x 3 ft deep). (References: Deford 1994, Harris 1996)	Concrete, steel	Pu-239/240, Sr-90, U--238, Pb	2	$20,193
	116-F-16 (PNL Outfall)	Concrete spillway connected to the 116-F-8 Outfall, which received waste water from the 100-F-29 EAF sewers. Most of the spillway has been backfilled, but a portion near the river shoreline is visible. Dimensions are 30.5 x 4.6 m (100 x 15 ft). (References: Deford 1994; DOE-RL 1992a, 1994d; EPA 1996)	Concrete, steel, soil	Cs-137, Pu-239/240, Sr-90	894	$312,063
	1607-F2 (Septic tank and drain field)	Received sanitary wastes from the 190-F, 105-F, 108-F, and other buildings. Marked with underground radioactive material warning signs. Reinforced concrete septic tank is 8.1 x 3.5 x 4.1 m deep (27 x 12 x 14 ft deep); drain field is 3,107 m^2 (33,408 ft^2). (References: Deford 1994, EPA 1996)	Concrete, tile, pipe, soil	Undetermined radionuclides	24,432	$2,825,824
	1607-F6 (124-F-6 Septic tank and drain field)	Received sanitary sewage from the 146-F and 146-FR Buildings. Site contains of two concrete tanks (each 0.9 m [3 ft] long by 0.9 m [3 ft] diameter), a steel tank 1.9 m (6.25 ft) long by 1.83 m (6 ft) diameter, a drain field, and pipelines. The drain field is 280 m^2 (3,000 ft^2). (References: Deford 1994, EPA 1996)	Concrete, metal, tile, soil	Undetermined organic and inorganic chemicals	2,157	$385,893
100-FR-2	100-F-2 (Strontium Gardens)	PNL ecological study garden formerly used for growing plants in soils containing radionuclides. Site is completely enclosed by a 24 x 9 x 3 m tall (80 x 30 x 10 ft tall) screen structure. (References: Deford 1994; DOE-RL 1995a [Appendix L], 1995c; EPA 1996)	Soil	Cs-137, Sr-90	2,011	$414,521
	120-F-1 (Glass Dump)	Site is an open trench, 10.7 x 2.4 x 1.2 m deep (35 x 8 x 4 ft deep) containing approximately 0.6 m (2 ft) of fluorescent tubes, light bulbs, vacuum tubes, small batteries, and empty chemical bottles. (References: Deford 1994; DOE-RL 1995a [Appendix L], 1995c; EPA 1996)	Debris, soil	Undetermined inorganic chemicals	48	$130,139
100-HR-1	100-H-11 (Expansion Box French Drain E)	The site is a french drain inside a concrete expansion box next to the south wing of the 105-H Reactor. A 1.5-m- (5-ft) diameter effluent line makes a 40-degree turn in the box, and the drain was designed to drain any leaks from the pipe. Dimensions unknown. (References: Deford and Einan 1995, EPA 1996)	Concrete, soil, steel	Undetermined radionuclides	72	$153,712
	100-H-12 (Expansion Box French Drain F)	The site is a french drain inside a concrete expansion box next to the 105-H Reactor. A 1.5-m- (5-ft) diameter effluent line makes a 90-degree turn in the box, and the drain was designed to drain any leaks from the pipe. The manhole access to the box is blocked with lead bricks to shield from a high dose. Dimensions unknown. (References: Deford and Einan 1995, EPA 1996)	Concrete, soil, steel, lead	Pb, undetermined radionuclides	72	$153,712

Table NA-1. Action Sites for Remove/Treat/Dispose. (7 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Volume for Disposal (LCY [a])	Estimated Cost of Site Remediation
100-HR-1 (cont.)	100-H-13 (French Drain G)	The site is a 1.2-m- (4-ft) diameter vitrified clay pipe with a 6.3-cm (2.5-in.) steel pipe entering from the 105-H Reactor. The purpose of the drain and pipe are not known. (References: Deford and Einan 1995, EPA 1996)	Vitrified clay, steel	Undetermined radionuclides	72	$153,712
	100-H-14 (Surface contamination Zone H)	Surface contamination zone of unknown origin next to the south wall of the 105-H Reactor Building fuel storage basin. Contamination was stabilized with 46 to 61 cm (18 to 24 in.) of soil and marked as subsurface contamination. The source of the contamination and dimensions of the contaminated area are unknown. (References: Deford and Einan 1995, EPA 1996)	Soil	Undetermined radionuclides	1,022	$256,644
	100-H-22 (Effluent Pipeline Leak)	Soil at this site was contaminated by leakage from the 105-H Reactor process effluent pipeline. Sampling in 1971 showed radioactivity of the soil was less than detection levels. Dimensions unknown. (References: Deford and Einan 1995; DOE-RL 1992c, 1993b; EPA 1996)	Soil	Co-60, Eu-152, Cr VI	4,153	$656,276
	100-H-24 (151-H Substation, Laydown Yard)	Sampling of stained soil in 1991 showed polychlorinated biphenyl levels below Toxic Substances Control Act cleanup levels (seven samples). The site is described in WIDS as a demolition landfill from the demolished 151-H electrical substation. Site dimensions are 125 x 84 x 3.4 m deep (410 x 276 x 11 ft deep). (References: DOE-RL 1993b, EPA 1996)	Soil	PCBs	532	$183,555
	100-H-31 (PCB in soil at 105-H Reactor)	Sampling of stained oil in 1991 at this former location of an electrical substation found 1,200 ug/kg of Aroclor-1260 in one soil sample. Dimensions of the waste site are unknown. (References: DOE-RL 1993b, EPA 1996)	Soil	PCBs	72	$153,712
	116-H-5 (1904-H Outfall Structure)	Received H Reactor process effluent for discharge to pipelines to the Columbia River. This site is a former concrete structure that was demolished in place. Dimensions of the structure were 8.2 x 4.3 m (27 x 14 ft); depth unknown. Site is covered with 3 m (10 ft) of soil. (References: Deford and Einan 1995; DOE-RL 1992c, 1993b; EPA 1996)	Concrete, steel, soil	Co-60, Sr-90, Cs-137, Eu-152, Eu-154, Pu-239/240, Cr VI	193	$173,706
	116-H-9 (117-H Crib for drainage of Filter Building Seal Pits)	Gravel-filled crib 6.1 x 6.1 x 4.6 m deep (20 x 20 x 15 ft deep) that received drainage from the 117-H Filter Building seal pits. Drainage entered through an 80-m (263-ft) long 10.2-cm (4-in.) cement-asbestos pipe. Crib received short-lived radionuclides that have decayed. Site was released from radiation controls in 1967, and the 100-HR-1 LFI (DOE-RL 1993b) concluded that the site was "a clean site." However, the crib remains listed as a Class V underground injection well. (References: Deford and Einan 1995; DOE-RL 1992c, 1993b; EPA 1996)	Soil, concrete asbestos	Cs-137, Eu-152, Ra-226, Th-228, Th-232, U-238	83	$149,018
	1607-H2 (Septic Tank and Drain Field)	Received sanitary sewage from the 182-H, 183-H, 190-H, and all 1700 maintenance service buildings. Concrete septic tank reported to be 12.2 x 3 x 2.5 m deep (40 x 10 x 8.3 ft deep); drain field is 91.5 x 30.5 m (300 x 100 ft). Septic tank sludge samples showed elevated heavy metal concentrations. (References: Deford and Einan 1995, DOE-RL 1993b, EPA 1996)	Soil, concrete, tile	Ag, As, Ba, Cd, Ar, Cu, Hg, Ni, Pb, Zn, Sulfate, Co-60, Cs-137, Eu-152, Ra-226, Th-228, Th-232	21,858	$2,556,444

Table NA-1. Action Sites for Remove/Treat/Dispose. (7 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Volume for Disposal (LCY [a])	Estimated Cost of Site Remediation
100-HR-1 (cont.)	1607-H4 (Septic Tank and Drain Field)	Received sanitary sewage from the 181-H River Pumphouse. The size and construction material are unknown; a 1990 ground penetrating radar survey showed underground pipes that ended abruptly, without detecting a septic tank. LFI sampling showed heavy metal contamination around the discharge pipe to the former septic tank. Tank is believed to have been 1.2 x 0.6 x 2.5 m deep (4 x 2 x 8 ft deep). The drain field is believed to be 36 m^2 (384 ft^2). (References: Deford and Einan 1995, DOE-RL 1993b, EPA 1996)	Soil	Ba, Cu, Pb, Zn, Cs-137, Eu-152, Ra-226, Th-228, Th-232, U-233/234, U-238	2,607	$428,422
100-KR-1	116-K-3 (1904-K Outfall Structure)	Formerly received KE and KW Reactor process effluent for discharge to pipelines to the Columbia River. Currently regulated by an EPA NPDES outfall permit to discharge clean process cooling water and water treatment effluent to the Columbia River. The outfall structure is a reinforced concrete water box with attached spillway 10 x 10.7 x 7 m deep (33 x 35 x 23 ft deep). (References: Deford and Einan 1995; DOE-RL 1992c, 1993b; EPA 1996)	Concrete, steel, soil	Co-60, Sr-90, Cs-137, Eu-152, Eu-154, Pu-239/240	2,098	$551,904
100-KR-2	100-K-14 (183-KE Acid Neutralization Pit and Overflow French Drain)	Received sulfuric acid overflow from the 183-KE day-use acid tank. The excavation for the drain was 1.5 m (5 ft) wide, 4.6 m (15 ft) deep. It was filled with aggregate to 17.5 cm (7 in.) from the top and covered with a limestone layer 12.5 cm (5 in.) deep. The steel cover of the pit is west of the alum storage tanks, south of the southwest corner of the 183-KE water treatment plant chlorine storage building. (Reference: Carpenter and Cote 1994)	Soil	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	78	$154,462
	100-K-18 (183-KW Caustic Neutralization Pit)	The site is a lined pit used to neutralize caustic solutions before disposal to the process sewer system. The pit is a 2.5 x 2 x 0.9 m deep (8.3 x 6.3 x 3 ft deep) brick-lined concrete box located 2.4 m (8 ft) southwest of the sulfuric acid tank at the 183-KW water treatment plant. (References: Carpenter and Cote 1994, DOE-RL 1994a)	Concrete, brick	As, Ba, Cd, Cr, Pb, Hg, Ag, Se	15	$115,472
	100-K-34 (183-KW Acid Neutralization Pit)	Received sulfuric acid tank transfer and overflow waste for neutralization before draining to the process sewer. The pit is a 2.5 x 2 x 1.5 m deep (8.3 x 6.3 x 5 ft deep) brick-lined concrete box located adjacent to the west outside wall of the 183-KW water treatment plant building and just north of the chlorine storage building. (References: Carpenter and Cote 1994, DOE-RL 1994a)	Concrete, brick	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	22	$117,014
	100-K-42 (105-KE Fuel Storage Basin)	The site is the fuel storage basin for the 105-KE Reactor. Although the basins originally served the K Reactors, N Reactor spent nuclear fuel was accumulated in the K Basins from 1979 through 1987. Approximately 2,100 metric tons of spent nuclear fuel remain in the K Basins. A portion of the fuel elements in the 105-KE fuel storage basin and the concrete of the basin walls have degraded, leaving sludge, fuel particles, and debris that must be removed before remediation of this site can occur. (References: Carpenter and Cote 1994)	Concrete, soil	Co-60, Sr-90, Cs-137, Eu-152, Eu-154, Pu-239/240	6,719	$1,098,786

Table NA-1. Action Sites for Remove/Treat/Dispose. (7 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Volume for Disposal (LCY [a])	Estimated Cost of Site Remediation
100-KR-2 (cont.)	100-K-43 (105-KW Fuel Storage Basin)	The site is the fuel storage basin for the 105-KW Reactor. Although the basins originally served the K Reactors, N Reactor spent nuclear fuel was accumulated in the K Basins from 1979 through 1987. Approximately 2,100 metric tons of spent nuclear fuel remains in the K Basins. The fuel elements in the 105-KE fuel storage basin and the concrete of the basin walls have degraded, leaving sludge, fuel particles, and debris that must be removed before remediation of this site can occur. (References: Carpenter and Cote 1994)	Concrete, soil	Co-60, Sr-90, Cs-137, Eu-152, Eu-154, Pu-239/240	2,009	$1,559,047
	100-K-53 (100-KE Glycol Underground Pipelines)	Underground 0.5- m- (1.5-ft) diameter steel supply and return pipelines that transported ethylene glycol solutions between the 150-KE heat recovery station (116-KE-5) and the 165-KE Powerhouse. Length of the two parallel pipes is approximately 300 m (1,000 ft) each. (References: Carpenter and Cote 1994, DOE-RL 1992d)	Steel, soil	Ethylene glycol	191	$745,078
	100-K-54 (100-KW Glycol Heat Recovery Underground Pipelines)	Underground 0.5-m- (1.5-ft) diameter steel supply and return pipelines that transported ethylene glycol solutions between the 150-KW heat recovery station (116-KW-4) and the 165-KW Powerhouse. The pipelines originate at 116-KW-4 and end at 165-KW Building north wall. Length of the two parallel pipes is approximately 300 m (1,000 ft) each. (References: Carpenter and Cote 1994, DOE-RL 1994c)	Steel, soil	Ethylene glycol	191	$745,078
	120-KE-1 (183-KE Filter Water Facility Dry Well)	Received sulfuric acid and sulfuric acid sludge for neutralization before draining to the process sewer system. The site is a brick-lined concrete box 2.5 x 2 x 1.5 m deep (8.3 x 6.3 x 5 ft deep) that contained crushed limestone. During the time this facility operated, sulfuric acid and sludge were contaminated with mercury. Identical to 120-KW-1. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Concrete, brick	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	22	$117,014
	120-KE-2 (183-KE Filter Waste Facility French Drain)	French drain used from 1955 to 1971 for disposal of sulfuric acid sludge removed from sulfuric acid tanks. A 0.9-m- (3-ft) diameter, 1.8-m- (6-ft) long vitrified clay pipe was placed vertically in an excavation 4 m (13 ft) across and 3.4 m (11 ft deep). The bottom 0.3 m (1 ft) of the pipe and bottom 1.5 to 1.8 m (5 to 6 ft) of the excavation were filled with coarse rock. Identical to 120-KW-2. (References: Carpenter and Cote 1994, EPA 1996)	Soil, clay pipe	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	123	$160,115
	120-KW-1 (183-KW Filter Water Facility Dry Well)	Received sulfuric acid and sulfuric acid sludge for neutralization before draining to the process sewer system. The site is a brick-lined concrete box 2.5 x 2 x 1.5 m deep (8.3 x 6.3 x 5 ft deep) that contained crushed limestone. During the time this facility operated, sulfuric acid and sludge were contaminated with mercury. Identical to 120-KE-1. (References: Carpenter and Cote 1994; DOE-RL 1994a, 1995a [Appendix K]; EPA 1996)	Concrete, brick	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	15	$115,472

Table NA-1. Action Sites for Remove/Treat/Dispose. (7 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Volume for Disposal (LCY [a])	Estimated Cost of Site Remediation
100-KR-2 (cont.)	120-KW-2 (183-KW Filter Water Facility French Drain)	French drain used from 1955 to 1971 for disposal of sulfuric acid sludge removed from sulfuric acid tanks. A 0.9-m- (3-ft) diameter, 1.8-m- (6-ft) long vitrified clay pipe was placed vertically in an excavation 4 m (13 ft) across and 3.4 m (11 ft deep). The bottom 0.3 m (1 ft) of the pipe and bottom 1.5 to 1.8 m (5 to 6 ft) of the excavation were filled with coarse rock. Identical to 120-KE-2. (References: DOE-RL 1994a, EPA 1996)	Soil, Clay Pipe	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	123	$160,115
100-IU-6	600-149 (Small Arms Range)	The site was used from the 1940s through the 1950s as a practice range for handguns, rifles, shotguns, machine guns, hand grenades, smoke bombs, and other small arms and incendiary devices. Rubble, wire, lead bullets, and transite piping remnants are scattered about the site. The area containing lead bullets measures approximately 92 x 6 x 1.5 m deep (300 x 20 x 5 ft deep). (References: Deford 1995, DOE-RL 1996)	Soil, lead, transite, misc. debris	Pb	1,278	$239,035
TOTALS: 46 Remaining Sites for Remove/Treat/Dispose					123,390	$25,859,176

NOTE: See Section N6.0 of this document for references cited throughout this table.

[a]LCY = Loose Cubic Yards

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-BC-1	100-B-3 (Former Hot Thimble Burial Ground)	Undocumented solid waste site. A highly contaminated vertical thimble was removed from the 105-B Reactor Building in 1952 and temporarily buried in a trench at this site. The thimble was later removed and taken to another burial ground. Radioactive and nonradioactive contaminants may remain in the unlined trench, which was approximately 30 x 7.6 x 6.1 m deep (100 x 25 x 20 ft deep). (References: Carpenter 1994, DOE-RL 1992e, EPA 1996)	Soil	H-3, C-14, Co-60, Sr-90, Cs-137, Eu-152, Eu-154, Cd, Hg, Pb, undetermined organic chemicals	$97,235
	100-B-5 (Effluent Vent Disposal Trench)	Site is result of leakage that occurred at a junction box for reactor effluent pipeline. This site is within the larger "Underground Radioactive Material" area extending the length of the effluent pipeline. The site is about 30 x 3 x 3 m deep (100 x 10 x 10 ft deep). (Reference: Carpenter 1994)	Soil	Undetermined radionuclides, Cr VI	$52,638
	100-B-10 (107-B Basin Leak and Warm Springs)	In February 1949 several warm springs were observed along the Columbia River below the 100-B Area Retention Basin. The springs were attributed to leaks in the 116-B-11 retention basin. Samples of the water in 1949 showed 4 nCi/L beta activity. Dimensions unknown. (Reference: DOE-RL 1992e)	Soil	Undetermined radionuclides, Cr VI	$52,638
	116-B-15 (Cleanout Percolation Pit)	Received treated water from the 105-B Fuel Storage Basin cleanup project. Contaminated water was processed through filters and an ion exchange system before discharge. Site is an open excavated pit 30.5 x 15.2 x 1.8 m deep (100 x 50 x 6 ft deep) with cobble and soil walls. (References: Carpenter 1994, DOE-RL 1992e)	Soil	Co-60, Sr-90, Cs-137, Eu-155, U-238, Cr VI	$49,203
	120-B-1 (Battery Acid Sump)	Site is a concrete-lined sump, cleaned in 1986, immediately adjacent to the 105-B Reactor Building. Sump was formerly used for disposal of waste battery acid, solvents, and ethylene glycol. Dimensions not stated. (References: Carpenter 1994, DOE-RL 1992e, EPA 1996)	Concrete, soil	Cr VI, Pb, Hg, ethylene glycol, undetermined organic chemicals	$64,663
	126-B-3 (184-B Coal Pit)	Solid waste site; Inert Landfill. Received nonhazardous, non-radioactive solid waste and demolition debris. Unlined pit 122 x 69 x 3 m deep (400 x 225 x 10 ft deep).	Concrete, soil	Lead (batteries)	$100,201
	128-B-2 (100-B Burn Pit No. 2)	Used for burning of nonradioactive, combustible wastes, including office wastes, paint, and chemical solvents. Unlined pit 137.2 x 15.2 x 9.1 m deep (450 x 50 x 30 ft deep). (References: Carpenter 1994, DOE-RL 1992e, EPA 1996)	Soil, concrete, misc. debris	Undetermined organic and inorganic chemicals	$176,869
	132-B-1 (108-B Tritium Separation Facility)	Facility originally designed for mixing and adding chemicals for treatment of reactor cooling water. Later converted to tritium recovery. Building demolished to 3 m (10 ft) below grade; any contaminated rubble left in situ. The site is 45 x 10 m (150 x 32 ft),depth unknown. (References: Carpenter 1994, DOE-RL 1992e, EPA 1996)	Soil, concrete	Tritium (H-3)	$51,350
	132-B-3 (108-B Ventilation Exhaust Stack Site)	Stack and foundation were decontaminated, decommissioned, and demolished using explosives in 1983. Allowable residual contaminant level (ARCL) report calculations predicted 2.2 mrem/yr exposure from a radionuclide inventory of 21 mCi. Burial trench 9.1 x 76 x 5.5 m deep (30 x 250 x 18 ft deep). Trench and rubble covered with clean fill. (References: Carpenter 1994, EPA 1996)	Concrete, steel liner, soil	Undetermined radionuclides	$80,057

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-BC-1 (cont.)	132-B-4 (117-B Filter Building)	Building was decontaminated, decommissioned, and demolished in situ. ARCL report calculations predicted less than 1 mrem/yr exposure from a radionuclide inventory of 92 nCi. Rubble was buried from 1 to 5 m deep (3.3 to 16 ft deep) under clean fill. Building was originally reinforced concrete 18.3 x 12 m (59 x 39 ft) and 10.7 m (35 ft) high, with only 2.4 m (8 ft) above grade. (References: Carpenter 1994, EPA 1996, DOE-RL 1993a)	Concrete, soil	H-3, C-14,Sr-90, Cs-137, Pu-239/240	$95,088
	132-B-5 (115-B/C Gas Recirculation Facility)	Building was decontaminated, decommissioned, and demolished in situ. ARCL report calculations predicted 17 mrem/yr exposure. The facility contained vacuum and pressure seal pits and tunnels. The site is 51 x 30 x 3.4 m deep (168 x 98 x 11 ft deep). (References: Carpenter 1994, EPA 1996, DOE-RL 1993a)	Concrete, soil	H-3, C-14, Co-60, Sr-90, Cs-137, Eu-152, Pu-239	$69,188
	1607-B2 (124-B-2 Septic System)	Received sanitary wastes from office buildings, 105-B Reactor, and 190-B Pumphouse. Reinforced concrete septic tank and tile drain field. Top visible, has two steel manhole covers on concrete slab. Site is reported to be 7.6 x 3.5 x 4 m deep (25 x 11.5 x 13 ft deep). Drain field is 90 x 23 m (300 x 75 ft). (References: Carpenter 1994, EPA 1996)	Concrete, soil, steel, tile	Undetermined organic and inorganic chemicals	$72,945
	1607-B7 (124-C-1 Septic System)	Received sanitary sewage from 183-B Water Treatment Plant. Reinforced concrete septic tank and tile drain field. Tank is 1.8 x 1 x 2.5 m deep (6 x 3 x 8 ft deep); drain field is 71 m^2 (768 ft^2). (References: Carpenter 1994, EPA 1996)	Concrete, tile, soil	Undetermined organic and inorganic chemicals	$51,350
100-BC-2	100-B-1[a] (Surface Chemical Dumping Area)	Undocumented solid and liquid waste site and laydown yard. Area approximately 45.7 x 30.5 m (150 x 100 ft) containing several surface dump sites. Depth of contamination unknown. Site reportedly smells of oil and other petrochemicals. Affected soils are vegetation-free. (Reference: Carpenter 1994)	Soil, concrete, miscellaneous debris	Petroleum hydrocarbons; undetermined organic and inorganic chemicals	$74,126
	100-C-3 (119-C Sample Building French Drain)	Received water coolant from the heat exchanger for the air sampler and effluent from the building swamp cooler and floor drain. Site is a small French drain (approximately 0.6 m [2 ft] diameter) associated with the 119-C Sample Building. (Reference: Carpenter 1994)	Soil, unknown construction materials	Undetermined organic and inorganic chemicals	$52,495
	100-C-7 (183-C Filter Building Demolition Waste)	Building demolished with concrete contaminated with sodium dichromate left in place, along with steam pipe covered with asbestos. Remaining concrete backfilled to minimum of 1 m (3 ft). Site leveled to match existing terrain. Site is 93 x 88 x 3 m deep (305 x 290 x 10 ft deep). (Reference: WIDS)	Concrete, soil, steel, asbestos	Sodium dichromate	$120,703
	116-C-3 (Chemical Waste Tanks)	Two below-ground storage tanks that may have never been used. The tanks were installed to receive caustic waste from the metal examination facility and may be filled with water. Both tanks are 3.7 m (12 ft) diameter x 3.7 m (12 ft) deep. (References: Carpenter 1994, EPA 1996)	Steel, soil	Undetermined organic and inorganic chemicals	$59,382
	116-C-6 (Percolation Pit)	Received treated water from the 105-C Fuel Storage Basin cleanup project. Contaminated water was processed through filters and an ion exchange system before discharge. Site is an unlined, "L"-shaped, open excavated pit with side lengths of 30.5 m, 30.5 m, 13.7 m, 16.8 m, and 15.2 m; total area of 674 m^2 (side lengths of 100 ft, 100 ft, 45 ft, 50 ft, 55 ft; total area of 7,250 ft^2). (Reference: Carpenter 1994)	Soil	Co-60, Sr-90, Cs-137, Eu-155, U-238, Cr VI	$52,638

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-BC-2 (cont.)	128-C-1 (100-C Burning Pit)	Used for burning nonradioactive combustible materials and disposal of noncontaminated equipment and other solid waste. Site is 68.6 x 38 m (225 ft x 125 ft) and reportedly contains short-lived radionuclides. (References: Carpenter 1994, DOE-RL 1994f)	Soil, concrete, miscellaneous debris	Undetermined organic and inorganic chemicals	$77,792
	132-C-1 (105-C Reactor Stack Burial Ground)	Stack and foundation were decontaminated, decommissioned, and demolished using explosives in 1983. ARCL report calculations predicted 4.4 mrem/yr exposure from a radionuclide inventory of 2.8 millicuries. Site is an unmarked, vegetation-free cobble-covered field 61 m (200 ft) long, 9.2 m (30 ft) wide, and 4.6 m (15 ft) deep. (References: Carpenter 1994, DOE-RL 1994f)	Concrete	Co-60, Sr-90, Cs-137, Eu-154, Pu-238, Pu-239/240	$55,803
	132-C-3 (117-C Filter Building Site)	Building was decontaminated, decommissioned, and demolished in situ in 1988. ARCL report calculations exist. Rubble was buried from 1 to 5 m deep (3.3 to 16 ft) under clean fill. Building was originally reinforced concrete 18 x 12 m (59 x 39 ft) and 10.7 m (35 ft) high, with only 2.4 m (8 ft) above grade. (References: Carpenter 1994; DOE-RL 1994f, 1993c)	Concrete, soil	H-3, C-14, Sr-90, Cs-137, Eu-154, Eu-152, Pu-239/240	$95,088
	1607-B8 (Septic Tank and Drain Field)	Received sanitary sewage from 190-C Pumphouse. 1,325-L (350-gal) steel septic tank and tile drain field. Septic tank dimensions are 1.8 x 0.9 x 2.5 m deep (6 x 3 x 8.3 ft deep). Drain field is 59 m^2 (640 ft^2). (References: Carpenter 1994, EPA 1996)	Steel, tile, soil	Undetermined organic and inorganic chemicals	$51,350
	1607-B9 (Septic Tank and Drain Field)	Received sanitary sewage from 105-C Reactor. 9,085-L (2,400-gal) septic tank and tile drain field. Septic tank dimensions are 4.3 x 0.9 x 2.5 m deep (14 x 3 x 8.3 ft deep). Drain field is 408 m^2 (4390 ft^2). (References: Carpenter 1994, EPA 1996)	Concrete, tile, soil	Undetermined organic and inorganic chemicals	$51,350
	1607-B10 (Septic Tank and Drain Field)	Received sanitary sewage from headhouse of 183-C Water Treatment Plant. 1,325-L (350-gal) steel septic tank and tile drain field. Site dimensions are 4.6 x 9.1 m (15 x 30 ft), depth assumed to be 2.5 m (8.3 ft). Drain field is 59 m^2 (640 ft^2). (Reference: EPA 1996)	Steel, tile, soil	Undetermined organic and inorganic chemicals	$51,350
	1607-B11 (Septic Tank and Drain Field)	Received sanitary sewage from 183-C Filter Building and Pump Room. 1,325-L (350-gal) steel septic tank and tile drain field. Site dimensions are 4.6 x 9.1 m (15 x 30 ft), depth assumed to be 2.5 m (8.3 ft). Drain field is 59 m^2 (640 ft^2). (References: Carpenter 1994, EPA 1996)	Steel, tile, soil	Undetermined organic and inorganic chemicals	$51,350
100-DR-1	100-D-7 (Dumping Area)	Solid waste surface dumping areas containing nonradioactive, nonhazardous waste including vitrified clay pipe, concrete cores, metal paint cans, and wood debris located north and east of the 128-D-2 burn pit. Approximate dimensions are west area – 35 x 24 m (115 x 80 ft); northeast area – 80 x 45 m (260 x 120 ft); and east area – 31 x 45 m (100 x 120 ft).	Concrete, tile, soil	Undetermined organic and inorganic chemicals	$96,300
	100-D-8 (105-DR Process Sewer Outfall)	Received waste water from water treatment facilities, including chemical discharges from spills in the treatment facilities. Potential contamination from the 100-D Area Cask Pad storm drains. Site is upstream of the 181-D Pumphouse. Structure was demolished in 1978, and covered to blend with the riverbank appearance. Dimensions unknown. (Reference: Carpenter 1994)	Concrete, soil	Undetermined radionuclides and organic chemicals	$70,389

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-DR-1 (cont.)	100-D-24 (119-D Sample Building French Drain)	Site drawing H-1-19810 shows an "existing dry well" located south of the 119-D Sample Building (demolished) that received drainage from a floor drain. A 5-cm (2-in.) drain pipe 0.9 m (3 ft) below grade connected the building to the dry well. The site is not marked or posted, lies in a cobble-covered field, and cannot be distinguished. Dimensions unknown. (Reference: WIDS)	Soil	Undetermined radionuclides, inorganic and organic chemicals	$73,824
	100-D-30 (Sodium Dichromate Soil Contamination)	Sodium dichromate soil contamination found after demolition of the 190-D Building. Also called 185-D NaCr Trench. Dimensions given are 93 x 1 m (304 x 3.3 ft). Site may be covered with 3 m (10 ft) of clean soil and rubble backfill from 190-D Building demolition. (Reference: WIDS)	Soil	Sodium dichromate	$48,645
	116-D-10 (105-D Fuel Storage Basin Cleanout Percolation Pits)	Received treated water from the 105-D Fuel Storage Basin cleanup project. Contaminated water was processed through filters and an ion exchange system before discharge. After an unplanned release, the two pits were excavated; contaminated soil was removed; and the site surveyed, released, and backfilled. West pit was 10.7 x 6.7 x 0.9 m deep (35 x 22 x 3 ft deep), under the backfill. East pit was 15.2 x 7.3 x 1.2 m deep (50 x 24 x 4 ft deep). (References: Carpenter 1994, EPA 1996)	Soil	Undetermined radionuclides	$51,350
	128-D-2 Burning Pit	Received noncontaminated graphite blocks and other solid wastes during reactor construction. Located about 180 m (600 ft) northeast of the 128-D-1 burn pit. Site is approximately 73 x 73 m (240 x 240 ft). No definite boundaries. Concrete and metallic debris exposed. Currently used to dispose of tumbleweeds. (References: Carpenter 1994, EPA 1996)	Soil, concrete, metals	Undetermined inorganic and organic chemicals	$123,037
	130-D-1[a] (1716-D Gasoline Storage Tank Site)	Former location of a steel underground gasoline storage tank (removed during 1989). Tank was part of the former 1706-D fuel station that operated from 1944 to 1968 and was used for storage of leaded gasoline. After removal of the tank, the site was backfilled without removal of contaminated soil. Dimensions unknown. (Reference: Carpenter 1994)	Soil	Petroleum hydrocarbons; undetermined organic and inorganic chemicals	$52,940
	132-D-1 (115-D/DR Gas Recirculating Facility)	Building was decontaminated, decommissioned, and demolished in situ in 1985-1986. ARCL report calculations exist. Site consisted of a building with vacuum and pressure seal pits and tunnels to the 105-D and 105-DR Reactor Buildings. Site is 51 x 30 x 3.4 m deep (168 x 98 x 11 ft deep). Buried under at least 1 m (3.3 ft) of backfill. (References: Carpenter 1994, EPA 1996, DOE-RL 1994g)	Concrete, metal	H-3, C-14, Co-60, Sr-90, Cs-137, Eu-152, Pu-239	$72,513
	132-D-2 (117-D Filter Building)	Building was decontaminated, decommissioned, and demolished in situ in 1986. ARCL report calculations exist. The site is 18 x 12 x 8.2 m deep (59 x 39 x 27 ft deep). Contaminated rubble is buried a minimum of 1 m (3.3 ft) deep, except for seal pit rubble, which is buried under minimum of 5 m (16.4 ft) clean fill. (References: Carpenter 1994, EPA 1996, DOE-RL 1994g)	Concrete, soil	H-3, C-14, Co-60, Sr-90, Cs-137, Eu-152, Pu-239	$99,382
	132-D-3 (1608-D Waste Water/Effluent Pumping Station)	Building was decontaminated, decommissioned, and demolished in situ in 1986-1987. ARCL report calculations exist. Received water from reactor building drains (primarily fuel storage basin overflows) containing low-level radionuclides and decontamination chemicals. Pumped water from collection pits to 105-D Reactor process effluent pipelines. Site is 6.1 x 6.1 x 9.8 m deep (20 x 20 x 32 ft deep). (References: Carpenter 1994, EPA 1996, DOE-RL 1994g)	Concrete, soil	C-14, Sr-90, Tc-99, Ra-226, U-235, U-238, Pu-239, Am-241, undetermined organic chemicals	$128,823

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-DR-1 (cont.)	628-3 (Burn Pit)	Used for burning of nonradioactive, combustible wastes, including construction debris and chemical solvents. Depression in site center shows signs of severe plant stress and soil discoloration. Site is approximately 76 x 12.2 m (250 x 40 ft) and poorly defined. Site is littered with burned wood, nails, metal pipes, rebar, and glass debris. (References: Carpenter 1994, EPA 1996)	Soil, miscellaneous debris	Undetermined organic and inorganic chemicals, asbestos	$126,540
	1607-D4 (Septic Tank and Drain Field)	Received sanitary sewage from the 115-D/DR Gas Recirculation Building. Reinforced concrete tank is 1.2 x 0.6 m (4 x 2 ft), buried about 2.5 m (8 ft) deep. Tile drain field is 36 m^2 (384 ft^2). (References: Carpenter 1994, EPA 1996, DOE-RL 1994g)	Concrete, tile, soil	Cs-137, Eu-152, undetermined organic and inorganic chemicals	$61,657
	1607-D5 (Septic Tank and Drain Field)	Received sanitary sewage from the 181-D River Pumphouse. Reinforced concrete tank is 1.2 x 0.6 m (4 x 2 ft), buried about 2.4 m (8 ft) deep. Tile drain field is 36 m^2 (384 ft^2). (References: Carpenter 1994, EPA 1996)	Concrete, tile, soil	Undetermined organic and inorganic chemicals	$61,657
	UPR-100-D-1[a] (Oil Soaked Soil)	Site is a small depression 0.6 m (2 ft) in diameter surrounded by oil-soaked soil. Natural vegetation partly obscures the site located east of the former location of the 190-D Building and south of a paved road. (Reference: Carpenter 1994)	Soil	Petroleum hydrocarbons; undetermined organic chemicals	$46,912
100-DR-2	100-D-13 (1607-DR3 Septic Tank and Drain Field)	Received sanitary sewage from temporary construction facilities and overflow from the water towers at 100-D and 100-DR Reactors. Site is described as an Imhoff tank with open pit drain field. Tank is reinforced concrete 8.2 x 3.8 x 7.3 m deep (27 x 13 x 24 ft deep); open pit drain field is 18.2 x 18.2 m (60 x 60 ft). (Reference: Carpenter 1994)	Concrete, soil, pipes	Undetermined radionuclides	$49,203
	100-D-15 (Solid Waste Burial Site/ Borrow Pit)	Received debris and miscellaneous waste described as nonradioactive and nonhazardous, including paint cans, solvent cans, and construction materials. Waste material has been dumped at two locations in a large borrow pit southeast of the 100-DR reactor facilities (Gravel Pit #21). (Reference: WIDS)	Concrete, metal, miscellaneous debris	Undetermined organic and inorganic chemicals	$126,540
	100-D-23 (119-DR Building French Drain)	Site drawing H-1-19810 shows an "existing dry well" that received floor drainage and effluent from evaporative cooler in the 119-D Sample Building (demolished). The site is not marked or posted, lies in a cobble-covered field, and cannot be distinguished. Dimensions unknown. (Reference: WIDS)	Soil	Undetermined radionuclides, inorganic and organic chemicals	$73,824
	100-D-27 (151-D Substation Transformer Leak)	Mineral oil containing less than 50 ppm PCBs leaked from Transformer #A401C at the 151-D electrical substation. The transformer was repaired, facility was powerwashed, all contaminated material was shoveled into seven 208-L (55-gal) drums, and the site backfilled with clean gravel. (Reference: WIDS)	Soil, gravel	PCBs	$52,940
	100-D-28 (190-DR Septic System)	Received sanitary sewage from the 190-DR Building. Described as a 2,725-L (720-gal) steel septic tank and clay tile drain field southwest of 190-DR Building. Tank is 1.8 x 1.8 x 2.5 m deep (6 x 6 x 8.3 ft deep); drain field is 122 m^2 (1,317 ft^2). (Reference: WIDS)	Steel, tile, soil	Undetermined organic and inorganic chemicals	$51,350
	116-DR-8 (117-DR Seal Pit Crib)	Received water contaminated with radioactive wastes from the 117-DR Building containment system and seal pits. Released from radiological controls prior to 1967 (Dorian and Richards 1978). Located about 76 m (250 ft) south of DR exclusion area fence and directly east of the 118-DR-1 burial ground. Crib is 3 x 3 x 5.2 m deep (10 x 10 x 17 ft deep), buried 1.2 m (4 ft) deep. Facility is registered as an injection well. Operated 1960-1964. (References: Carpenter 1994, EPA 1996, DOE-RL 1995c)	Soil	H-3, C-14	$81,798

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-DR-2 (cont.)	116-DR-10 (105-DR Fuel Storage Basin Cleanout Percolation Pond)	Received treated water from the 105-DR Fuel Storage Basin cleanup project. Contaminated water was processed through filters and an ion exchange system before discharge. In 1984 contaminated soil was removed and site was released using ARCL methodology. Pit has been backfilled and graded to match the terrain of the area. Site is 24.4 x 15.2 m (80 x 50 ft); depth of excavation is unknown. (References: Carpenter 1994, EPA 1996, DOE-RL 1995c)	Soil	Undetermined radionuclides	$49,203
	128-D-1 (100-D/DR Burning Pit)	Used for burning of an estimated 40,000 m^3 of nonradioactive combustible materials such as paint waste, office waste, and chemical solvents. Disposal site was used from 1944-1967. Site was 30.5 x 30.5 x 3 m deep (100 x 100 x 10 ft deep). Radioactively contaminated materials were found at the site in 1951 and removed. (References: Carpenter 1994, EPA 1996, DOE-RL 1995c)	Soil, asbestos, miscellaneous debris	Undetermined radionuclides, inorganic and organic chemicals	$80,059
	132-DR-1 (1608-DR Wastewater/ Effluent Pumping Station)	Building was decontaminated, decommissioned, and demolished in situ in 1987. Received water from reactor building drains (primarily fuel storage basin overflows) containing low-level radionuclides and decontamination chemicals. Pumped water from collection pits to 105-DR Reactor process effluent pipelines. Site is 11 x 10.4 x 8.5 m deep (36 x 34 x 28 ft deep). (References: Carpenter 1994, EPA 1996, DOE-RL 1995c)	Concrete, soil	Undetermined radionuclides, organic and inorganic chemicals	$121,951
	600-30 (100-DR Construction Lay-Down Area)	Site is an open field containing miscellaneous debris and areas of distressed vegetation. Approximate dimensions are 213 x 183 x 1.5 m deep (700 x 600 x 5 ft deep).	Soil	Organic solvents; petroleum hydrocarbons	$134,127
100-FR-1	100-F-4 (108-F Building 12-in. French Drain)	Vertical 0.3-m- (1-ft) diameter vitrified clay pipe adjacent to south wall of the 108-F Building. A 1.3-cm (½-in.) steel pipe enters the drain from the 108-F Building. No record of dates of operation, waste type, or quantity. (References: Deford 1994, EPA 1996)	Clay and steel pipes	Undetermined organic and inorganic chemicals	$52,638
	100-F-7[a] (1705-F Building Fuel Storage Tank)	Location of a steel underground fuel oil storage tank for the 1705-F Building Heater Room (building was demolished in 1975). It is not known if the tank was removed when the building was demolished. Dimensions unknown. (Reference: Carpenter 1994)	Soil	Undetermined organic and inorganic chemicals	$55,087
	100-F-9 (First French Drain at East End of 105-F Storage Room)	Vertical 0.9-m- (3-ft) diameter concrete pipe buried to unknown depth with upper surface 5 cm (2 in.) above grade. Located adjacent to the northeast corner of the 105-F Miscellaneous Storage Room of the 105-F Reactor. The upper surface is a few inches above grade and is gravel filled. No record of dates of operation, waste type, and quantity. Drain has a 2.5-cm (1-in.) steel pipe coming from the 105-F Building. (Reference: Deford 1994)	Concrete, soil	Undetermined organic and inorganic chemicals	$52,638
	100-F-10 (Second French Drain at East End of 105-F Storage Room)	Vertical 0.9-m- (3-ft) diameter concrete pipe buried to unknown depth with upper surface 5 cm (2 in.) above grade. Located adjacent to the southeast corner of the 105-F Miscellaneous Storage Room of the 105-F Reactor. The upper surface is a few inches above grade and is gravel filled. No record of dates of operation, waste type, and quantity. Drain has a 2.5-cm (1-in.) steel pipe coming from the 105-F Building. (References: Deford 1994, EPA 1996)	Concrete, soil	Undetermined organic and inorganic chemicals	$52,638

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-FR-1 (cont.)	100-F-11 (108-F Building 18-in. French Drain)	Vertical 0.5-m- (1.5-ft) diameter concrete pipe (length unknown) adjacent to northwest corner of the electrical substation on west wall of 108-F Building. No record of dates of operation, waste type, and quantity. The drain surface is a few inches above grade, has no cover, and is filled with gravel. (References: Deford 1994, EPA 1996)	Concrete, soil	Undetermined organic and inorganic chemicals	$52,638
	100-F-12 (36-in. French Drain at 105-F Building)	Vertical 0.9-m- (3-ft) diameter concrete pipe of unknown length standing 5 cm (2 in.) above grade with a steel lid. Located at the northeast corner of the 105-F Reactor. No record of dates of operation, waste type, or quantity. (References: Deford 1994, EPA 1996)	Concrete, steel, soil	Undetermined organic and inorganic chemicals	$52,638
	100-F-16 (108-F Building 30-in. French Drain)	Vertical 0.8-m- (2.5-ft) diameter steel pipe of unknown length adjacent to south wall of 108-F Building east porch. No record of dates of operation, waste type, or quantity. (Reference: Deford 1994)	Steel, soil	Undetermined organic and inorganic chemicals	$52,638
	100-F-18 (Former Condensate Tank at 105-F)	Received condensate from the 105-F Fan House and discharged to a drain field. Tank and piping were removed during demolition of the fan house in 1994, but drain field may remain in place. No record of dates of operation, waste type, or quantity. (Reference: Deford 1994)	Steel	Undetermined organic and inorganic chemicals	$68,686
	100-F-23 (141-F Drywell)	Received liquid wastes from the 141-C Building. During removal of the 141-C Building foundation, the adjacent soil was found to be contaminated and removed; the drywell (within 3.5 m [10 ft] of the building) may have been removed at that time. There is no current evidence of a drywell at the site, but the site is located within an area posted as "Underground Radioactive Material." (Reference: WIDS)	Soil	Undetermined radionuclides	$63,518
	100-F-24 (145-F Drywell/ French Drain)	The drywell received liquid animal wastes, and may have been removed or covered with backfill during the demolition of the 145-F Facility, which was buried in place. (Reference: WIDS)	Soil	Undetermined organic and inorganic chemicals	$73,824
	100-F-25 (146-FR Drywells/ French Drains	There is no evidence of drywells or French drains in the area. The units may have been removed or covered with backfill during removal of the nearby 146-FR slab in 1975. No record of dates or operation, waste type, or quantity. (Reference: WIDS)	Unknown	Undetermined organic and inorganic chemicals	$61,657
	100-F-29 (EAF Process Sewer Pipelines)	This unit contains the many process sewer lines at the Experimental Animal Farm site. When the buildings were removed, the underground lines were left in place. The unit excludes the Reactor and Water Treatment effluent lines. (References: Deford 1994, DOE-RL 1992a)	Concrete, clay, metal	I-131, Sr-90, Cs-137, U-235, U-238, Pu-239/240	$123,105
	100-F-31 (144-F Sanitary Sewer System)	The site is the septic system receiving sanitary sewage from the 144-F Building. Site drawings do not indicate if system also received animal wastes with human wastes. The septic system may have been removed during the D&D of 144-F in 1977. (Reference: WIDS)	Soil	Undetermined radionuclides and inorganic chemicals	$54,785
	100-F-33 (1705-F Fish Farm)	May have received unplanned releases of water containing process effluent from the fish ponds. No releases are known, but the ponds were unlined, unreinforced concrete, and they and their piping may have leaked. Water from the ponds was discharged to the PNL Outfall via the 147-F Pumphouse. The pond structures were removed in 1975 and the site backfilled. (Reference: DOE-RL 1992a)	Soil	Undetermined radionuclides	$49,203

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-FR-1 (cont.)	100-F-34 (Biology Facility French Drain)	Believed to have received waste water from the 1705-F Radiobiology Laboratory or Fish Ponds. The site is a 0.7-m- (29-in.) diameter clay pipe, approximately 0.6 m (2 ft) deep. (Reference: WIDS)	Clay pipe, soil	Undetermined organic and inorganic chemicals	$61,657
	116-F-7 (117-F French Drain)	Received drainage from the confinement exhaust systems filter seal pits in the 117-F Building during 1960-1965. Radionuclides received had a short half-life and have decayed until they are no longer of concern. Site was released from radiation zone status. The piping system contained some asbestos-concrete pipes. (Reference: Deford 1994)	Concrete, asbestos, soil, clay	Undetermined radionuclides	$52,638
	116-F-12 (148-F French Drain)	Received an estimated 10,000 L of effluent pump prime water from the lift station between 1944 and 1964. Drain is 0.9-m (36-in.) diameter by 1.8-m (6-ft) deep (constructed of clay or concrete pipe). Liquids discharged to the drain percolated into the soil. Contaminants, if any, are unknown. (Reference: Deford 1994)	Concrete, clay, soil	Undetermined organic and inorganic chemicals	$43,477
	126-F-2 (183-F Clearwells)	Former clearwells for storage of river water being processed for reactor coolant. Partially demolished and used as an inert landfill for disposal of uncontaminated rubble and debris from D&D projects. Dimensions are 229 x 41 x 4.6 m deep (751 x 135 x 15 ft deep).	Concrete, soil	Possible low-level radioactive waste	$118,194
	128-F-2 (100-F Burning Pit)	Irregularly shaped depression used for burning nonhazardous office waste, vegetation, paint, solvents, and other combustibles. Received some hardware and machinery. The site was buried with clean soil in preparation for drilling test well F5-42 in 1992. Pit was 45.7 x 18.3 x 3 m deep (150 ft x 60 ft x 10 ft deep). (References: Deford 1994, EPA 1996)	Soil	Undetermined organic chemicals	$52,940
	132-F-1 (Chronic Feeding Barn Site)	Feeding Barn was a 455-m^2 (4,900-ft^2) concrete block building with concrete animal pens; main housing facility for sheep and other livestock used in radiological dose studies. The facilities were cleaned out and washed down regularly; drains were connected to sewer 100-F-29. Operated 1950-1980. Demolished sometime after 1980 and buried in place. May still contain residual radiological contamination; there are no records of decommissioning activities. Sampled in 1992 (WHC-SD-EN-TI-128, Rev 0). (References: DOE-RL 1994d, EPA 1996)	Soil, concrete	Sr-90, Cs-137, Pu-239	$57,950
	132-F-3 (115-F Gas Recirculating Facility Site)	Building D&D'd in situ in 1984. ARCL report calculations exist. Dimensions are 53.3 x 30.5 x 4 m deep (175 x 100 x 13 ft deep). The area was covered with clean backfill to an average depth of 2.1 to 2.7 m (7 to 9 ft). Site is now a gravel lot, free of debris. (References: Beckstrom 1984, Deford 1994, DOE-RL 1994d, EPA 1996)	Concrete, metal pipes, soil	H-3, C-14, Co-60, Sr-90, Cs-137	$72,588
	132-F-4 (116-F Reactor Stack Demolition Site)	Stack and foundation were decontaminated, decommissioned, and demolished using explosives in 1983. ARCL report calculations predicted 12.5 mrem/yr exposure using radionuclide assays before decontamination. The burial trench is 61 x 6.1 x 4.6 m deep (200 x 20 x 15 ft deep). Rubble was covered with 1 m (3 ft) of soil. (References: Beckstrom 1984, Deford 1994, EPA 1996)	Concrete	H-3, C-14, other beta- and gamma-emitting radionuclides	$57,950
	132-F-5 (117-F Filter Building Site)	Received and filtered ventilation air from the work areas of the 105-F Reactor Building and discharged it to the 116-F Stack. Building was decontaminated, decommissioned, and demolished in situ in 1984. ARCL report calculations exist. Rubble was buried under 1 m (3.3 ft) of clean soil. Site dimensions are 18.3 x 12.2 x 8.2 m deep (60 x 40 x 27 ft deep). (References: Deford 1994, EPA 1996)	Concrete	C-14, Co-60, Cs-137, Sr-90, Eu-154, Eu-152	$99,382

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-FR-1 (cont.)	132-F-6 (1608-F Waste Water Pumping Station Site)	Pumped waste water containing trace amounts of low-level radionuclides and decontamination chemicals from drains and sumps in the 105-F Reactor Building into the process effluent pipeline. Dimensions are 15.2 x 15.2 x 10.4 m deep (50 x 50 x 34 ft deep); demolished and buried under 5 m (16 ft) of clean fill. (References: Deford 1994, EPA 1996)	Concrete	H-3, C-14, Co-60, Sr-90, Cs-137, Eu-152, Eu-154, undetermined inorganic chemicals	$128,823
	141-C (Large Animal Barn and Biology Laboratory)	This facility was a steel building on a concrete pad, covering 431 m^2 (4,640 ft^2). The building, concrete foundation, footings, and adjacent contaminated soil were removed and disposed of to the 200 Area Burial Ground. Underground pipes were left in place. Fifty soil samples were taken after demolition was completed to demonstrate release under AEC Regulatory Guide 1.86. (Reference: EPA 1996)	Metal pipes	I-131, Sr-90, Cs-137, Pu-239	$55,803
	182-F (182-F Reservoir)	Inert landfill for disposal of debris from D&D projects. Covered with fill from adjacent land. 560 x 309 x 15 ft deep.	Concrete, Soil	Possible Low-Level Radioactive Waste	$123,322
	1607-F3 (124-F-3 Septic System)	Received sanitary sewage from the 182-F Pump Station, 183-F Water Treatment Plant, and 151-F Substation. Reinforced concrete septic tank 2.6 x 1.3 x 3.4 m deep (8.5 x 4.5 x 11 ft deep). The drain field is 244 m^2 (2,624 ft^2). (References: Deford 1994, EPA 1996)	Concrete, clay tile, soil	Undetermined organic and inorganic chemicals	$61,657
	1607-F4 (124-F-4 Septic System)	Received sanitary sewage from the 115-F Gas Recirculation Building. Dimensions of the reinforced concrete septic tank are 1.2 x 0.6 x 2.5 m deep (4 x 2 x 8.3 ft deep). The drain field is 36 m^2 (384 ft^2). (References: Deford 1994, EPA 1996)	Concrete, clay tile, soil	Undetermined organic and inorganic chemicals	$61,657
	1607-F5 (124-F-5 Septic System)	Received sanitary sewage from the 181-F Pumphouse. Dimensions of the reinforced concrete septic tank are 1.2 x 0.6 x 2.5 m deep (4 x 2 x 8.3 ft deep), the drain field is 36 m^2 (384 ft^2). (References: Deford 1994, EPA 1996)	Concrete, clay tile, soil	Undetermined organic and inorganic chemicals	$61,657
	1607-F7 (124-F-7 Septic System)	Received sanitary sewage from the 141-M Building. Dimensions of the septic tank are not known. The drain field is estimated to be 170 m^2 (1,830 ft^2). (References: Deford 1994, EPA 1996)	Unknown	Undetermined organic and inorganic chemicals	$61,657
	UPR-100-F-1 (141-C to 141-M Sewer Line Leak)	Spill of 64,352 L (17,000 gal) of animal pen wash water occurred when a process sewer line from the 141-C Hog Barn plugged and overflowed adjacent to the building in 1971. Spill site, 12.2 x 12.2 m (40 x 40 ft), is located within the permanent protective concrete monuments surrounding the Experimental Animal Farm. (Reference: Deford 1994)	Soil	Sr-90, Pu-239	$49,203
	UPR-100-F-3 (Mercury Spill at 146-F Fish Lab)	Received mercury spilled on the floor of the 146-FR Fish Lab (since demolished). All material was "squeegeed" out the door of the building and was reported to have been cleaned up and removed. Contamination was limited to a 3 x 3 m (10 x 10 ft) area of surface soil near the northeast corner of the building. Building site is now a cobble-covered field. (Reference: Deford 1994)	Soil	Hg	$48,645
100-FR-2	100-F-14 (Vent Pipe)	A 10-cm (4-in.) pipe extends 1 m (3.3 ft) above grade. Ground penetrating radar indicates that the vent is attached to a tank (probably concrete) that received wastes from a nearby demolished carpenter shop. Dimensions unknown. (References: Bergstrom and Mitchell 1995, Deford 1994, EPA 1996)	Metal pipe, concrete	Undetermined organic and inorganic chemicals	$112,225

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-FR-2 (cont.)	100-F-28 (Septic System)	The site is a septic tank and drain field for a small building not near any contaminated facilities. The assumed size of the unit is 18.3 x 18.3 m (60 x 60 ft). (Reference: WIDS)	Unknown	Undetermined organic and inorganic chemicals	$51,350
	118-F-4 (Silica Gel Burial Ground; 115-F Pit)	Received 270 kg (0.3 tons) of silica gel from the 115-F dryer rooms. Silica gel was disposed to a small unlined disposal pit 3 x 3 x 4.6 m deep (10 x 10 x 15 ft deep). The site appears as an open, unvegetated cobble field. (References: Deford 1994, EPA 1996)	Soil, silica gel	Undetermined radionuclides, inorganic and organic chemicals	$68,686
	128-F-1 (Burning Pit)	Used for burning nonradioactive, combustible materials such as an paint waste, office waste, and chemical solvents. Burning pit is 30.5 x 30.5 x 3 m deep (100 x 100 x 10 ft deep). Located east of the 126-F-1 Ash Pit . Operated 1945-1965. Site has been backfilled. (References: Deford 1994; DOE-RL 1992a, 1995b; EPA 1996)	Soil, miscellaneous debris	Undetermined organic and inorganic chemicals	$67,462
	128-F-3 (PNL Burning Pit)	Used for burning materials from the Experimental Animal Farm. Shallow pit 30.5 x 30.5 m (100 x 100 ft), 30.5 m (100 ft) east of the 100-F ash pit. Pit was backfilled with coal ash. No records available on materials burned. (References: Deford 1994, EPA 1996)	Ash, soil	Undetermined organic and inorganic chemicals	$80,059
	1607-F1 (124-F-1 Septic System)	Received sanitary sewage from the 1701-F Badge House, 1709-F Fire Station, and 1720-F Administrative Office. The reinforced concrete septic tank is 4.3 x 2.1 x 3.4 m deep (14 x 7 x 11 ft deep). The drain field is 968 m^2 (21,600 ft^2). (References: Deford 1994, EPA 1996)	Concrete, vitrified pipe, soil	Undetermined organic and inorganic chemicals	$51,350
100-HR-1	100-H-3[a] (1716-H Gasoline Storage Tank Site)	Location of a steel underground gasoline storage tank for an automotive service station that operated from 1949-1965. The automotive service area included gas pumps with underground storage tanks and possibly an oil pit. No records could be located to determine whether the fuel tanks have been removed. Dimensions unknown. (Reference: Deford and Einan 1995)	Soil	Petroleum hydrocarbons; undetermined organic and inorganic chemicals	$55,087
	100-H-4 (1717-H Hot Shop French Drain)	Site of a former maintenance building that was decontaminated and decommissioned in the 1970's. French drain was apparently used for disposal of low-level radioactive materials. Dimensions unknown. (References: Deford and Einan 1995, EPA 1996)	Soil	Undetermined radionuclides and organic chemicals	$70,389
	100-H-7 (French Drain A)	Vertical 0.76-m- (2.5-ft) diameter vitrified clay pipe (length unknown) located 5.5 m (18 ft) east of the 105-H Reactor Building. No record of dates of operation, waste type, or quantity. A 6.3-cm (2.5-in.) steel pipe from the reactor is in line with the drain, suggesting a connection. (References: Deford and Einan 1995, EPA 1996)	Soil, vitrified clay	Undetermined radionuclides	$51,350
	100-H-8 (French Drain B)	Gravel-filled vertical 0.91-m- (3-ft) diameter concrete pipe with a steel cover (length unknown) located 9.1 m (30 ft) east of the 105-H Reactor Building. No record of dates of operation, waste type, or quantity. (References: Deford and Einan 1995, EPA 1996)	Concrete, soil	Undetermined organic and inorganic chemicals	$51,350
	100-H-9 (French Drain C)	Vertical 0.6-m- (2-ft) diameter concrete pipe (length unknown) located 27 m (90 ft) west of the northwest corner of the 105-H Reactor Building. No record of dates of operation, waste type, or quantity. (References: Deford and Einan 1995, EPA 1996)	Concrete, soil	Undetermined organic and inorganic chemicals	$51,350
	100-H-10 (French Drain D)	Vertical 1.2-m- (4-ft) diameter vitrified clay pipe with steel lid (length unknown) located 7.6 m (25 ft) north of the 105-H Reactor Building. No record of dates of operation, waste type, or quantity. (Reference: Deford and Einan 1995)	Concrete, soil	Undetermined organic and inorganic chemicals	$51,350

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-HR-1 (cont.)	126-H-2 (183-H Clearwells; Disposal Pit)	Two 228.6 x 41.1 x 5.5 m (750 ft x 135 ft x 18 ft) deep reinforced concrete basins at the site of the former 183-H Water Treatment Facility. The basins were historically used to store clean reactor coolant water. Eastern half currently holds D&D rubble (west half is still intact). Waste from the 183-H Solar Evaporation Basins that was disposed here is suspected of being contaminated with radionuclides. (Reference: Deford and Einan 1995)	Concrete, steel, miscellaneous debris	Undetermined radionuclides and inorganic chemicals	$196,333
	132-H-1 (116-H Reactor Exhaust Stack Burial Site)	Stack and foundation were decontaminated, decommissioned, and demolished using explosives in 1983. ARCL report calculations exist. Low-level smearable contamination was present on concrete at the time of demolition. The burial trench was 67 x 7.6 x 3 m deep (220 x 25 x 10 ft deep). Rubble was covered with 1 m (3 ft) of soil. (References: Deford and Einan 1995, DOE-RL 1995b, EPA 1996)	Concrete	C-14, H-3, Cs-137, Co-60, Eu-152, Eu-154, Eu-155	$57,950
	132-H-3 (1608-H Waste Water Pumping Station Site)	Received waste water containing trace amounts of low-level radionuclides and decontamination chemicals from drains and sumps in the 105-H Reactor Building and pumped these wastes into the process effluent pipeline. Dimensions are 11 x 10.4 x 9.7 m deep (36 x 34 x 32 ft deep), buried under clean fill. (References: Deford and Einan 1995, DOE-RL 1995b, EPA 1996)	Concrete, soil	Pb, undetermined radionuclides	$114,413
100-HR-2	128-H-1 (Burning Pit)	Used for burning nonradioactive, combustible materials such as an paint waste, office waste, and chemical solvents. Burning pit is 91.5 x 91.5 x 3 m deep (300 x 300 x 10 ft deep). Pit has been partially backfilled with soil and ash. Some debris remains at the site. (References: Deford and Einan 1995; DOE-RL 1993d, 1994b; EPA 1996)	Soil, miscellaneous debris	Undetermined organic chemicals	$101,919
	128-H-2 (Burning Pit)	Used for burning nonradioactive, combustible materials such as paint waste, office waste, and chemical solvents. Burning pit is 52 x 41.2 m (170 x 135 ft), depth unknown. (References: Deford and Einan 1995; DOE-RL 1993d, 1994b; EPA 1996)	Soil	Undetermined organic chemicals	$68,766
	128-H-3 (100-H Burning Ground #3)	Used for burning nonradioactive, combustible materials such as vegetation, office waste, paint waste, and chemical solvents. Dimensions are approximately 55 x 21 x 1.5 m deep (180 x 70 x 5 ft deep).	Soil	Organic solvents; petroleum hydrocarbons	$65,787
	132-H-2 (117-H Filter Building Site)	Received and filtered ventilation air from the work areas of the 105-H Reactor Building and discharged it to the 116-H Stack. Building was decontaminated, decommissioned, and demolished in situ in 1984. ARCL report calculations exist. Site dimensions are 18.3 x 12.2 x 9.6 m deep (60 x 40 x 32 ft deep). Rubble was buried under 5 m (16 ft) of clean fill. The site also includes the original location of the 116-H-4 Pluto Crib, which was excavated in 1960 and moved to a different location. (References: Deford and Einan 1995, DOE-RL 1993d, EPA 1996)	Concrete	H-3, C-14, Co-60, Cs-137, Sr-90, Eu-152, Eu-154, Pu-239/240	$110,118
	600-151 (Pre-Hanford Dumping Area)	Scattered debris and disturbed vegetation caused by pre-Hanford residents. Under authority of DOE Site Infrastructure Division; EM-70. Dimensions are approximately 244 x 183 x 0.15 m deep (800 x 600 x 0.5 ft deep)	Soil	Probable pesticides and petroleum hydrocarbons	$138,422
	1607-H1 (Septic Tank and Drain Field)	Received sanitary sewage from the 151-H and 105-H Buildings at an estimated flow rate of 503 L/day (140 gal/day). The concrete septic tank is 4.6 x 1.7 x 4.4 m deep (15 x 5.5 x 14.5 ft deep); the tile field is reported to be 17.1 x 15.2 m (56 x 50 ft). (References: Deford and Einan 1995, DOE-RL 1994b, EPA 1996)	Concrete, soil, tile	Undetermined organic and inorganic chemicals	$51,350

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-KR-2	100-K-13 (Liquid Waste Site [French Drain])	Used for disposal of "gray water" waste during construction activities. Located west of 166-KW oil storage tank. This isolated French drain is 1.5 m (5 ft) in diameter, constructed of concrete, and 0.5 m (1.5 ft) above grade. The french drain is now (1997) covered by a metal caisson to protect it during construction of a nearby facility. (References: Carpenter and Cote 1994; DOE-RL 1994a, 1995a [Appendix K]; EPA 1996)	Soil, concrete	Undetermined organic and inorganic chemicals	$56,074
	100-K-29(183-KE Sandblasting Site)	Red garnet was used as sandblasting grit at this site to clean steel components from the 183-KE settling basins for painting. An area west of the 183-KE water treatment facility approximately 50 x 30 m (160 x 96 ft) is delineated by the presence of red garnet. (References: Carpenter and Cote 1994, DOE-RL 1994a)	Soil, red garnet sandblast grit	Undetermined organic and inorganic chemicals	$70,906
	100-K-30 (183-KE Sulfuric Acid Tank Site [West])	Site of a horizontal tank that was used for storage of sulfuric acid for water treatment. Unknown when removed. Concrete bases and aboveground piping for the tank remain in place. The site covers an area 10 x 3.7 m (33 x 12 ft). Depth and type of contamination (if any) is unknown. No information is available regarding disposal of sludge that the tank may have contained. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Soil, concrete	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	$59,382
	100-K-31 (183-KE Sulfuric Acid Tank Site [East])	Site of a horizontal tank that was used for storage of sulfuric acid for water treatment. Unknown when removed. Concrete bases and aboveground piping for the tank remain in place. The site covers an area 10 x 3.7 m (33 x 12 ft). Depth and type of contamination (if any) is unknown. No information is available regarding disposal of sludge that the tank may have contained. (References: Carpenter and Cote 1994, DOE-RL 1994a)	Soil, Concrete	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	$59,382
	100-K-32 (183-KW Sulfuric Acid Tank Site [East])	Site of a horizontal tank that was used for storage of sulfuric acid for water treatment. Unknown when removed. Concrete bases and aboveground piping for the tank remain in place. The site covers an area 10 x 3.7 m (33 x 12 ft). Depth and type of contamination (if any) is unknown. No information is available regarding disposal of sludge that the tank may have contained. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Soil, concrete	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	$59,382
	100-K-33 (183-KW Sulfuric Acid Tank Site [West])	Site of a horizontal tank that was used for storage of sulfuric acid for water treatment. Unknown when removed. Concrete bases and aboveground piping for the tank remain in place. The site covers an area 10 x 3.7 m (33 x 12 ft). Depth and type of contamination (if any) is unknown. No information is available regarding disposal of sludge that the tank may have contained. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Soil, concrete	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	$59,382
	100-K-35 (183-KE Acid Neutralization Pit)	Received sulfuric acid tank transfer and overflow waste for neutralization before draining to the process sewer. The pit is a 2.5 x 2 x 1.5 m (8.3 x 6.3 x 5 ft) deep brick-lined concrete box located adjacent to the west outside wall of the 183-KE water treatment plant building and just north of the chlorine storage building. (References: Carpenter and Cote 1994, DOE-RL 1994a)	Concrete, brick	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	$50,793
	100-K-36 (1706-KE Chemical Storage Facility Dry Well)	Received spillage from transfer of sodium hydroxide and sulfuric acid at the 1706-KE Chemical Storage Facility. The French drain consists of a 0.5-m- (18-in.) diameter, 1.2-m-(4-ft) long vitrified clay pipe. A white crystalline material, believed to be sodium carbonate, can be seen on the drain, which is located east of the 1706-KE Building. (References: Carpenter and Cote 1994, DOE-RL 1994a)	Soil, vitrified clay pipe	Undetermined organic and inorganic chemicals	$52,495

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-KR-2 (cont.)	100-K-46 (119-KE French Drain)	Received sample waste, janitorial waste, and drainage from the evaporative cooler for the 119-KE Sample Building. The 0.3-m (1-ft) diameter French drain was covered with crushed rock after removal of the 130-KE-1 Emergency Diesel Oil Storage Tank. Located about 8 m (24 ft) east of the 105-KE Reactor Building and 3 m (10 ft) south of the 119-KE Sample Building. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Soil, vitrified clay pipe	Undetermined organic and inorganic chemicals; possible radionuclides	$61,657
	100-K-48[a] (100-KE Oil Contamination Areas)	Site of Bunker C fuel oil spillage from rail car off-loading procedures at the 130-KE-2 (166-KE) oil storage tank. The oil has been absorbed by soil and sand forming a hard asphalt-like covering on the surface.	Soil	Petroleum hydrocarbons; undetermined organic chemicals	$101,919
	100-K-49[a] (100-KW Oil Contamination Areas)	Site of Bunker C fuel oil spillage from rail car off-loading procedures at the 130-KW-2 (166-KW) oil storage tank. The oil has been absorbed by soil and sand forming a hard asphalt-like covering on the surface.	Soil	Petroleum hydrocarbons; undetermined organic chemicals	$101,919
	120-KE-3(183-KE Filter Water Facility Trench, 100-KE-3)	Received sulfuric acid sludge from sulfuric acid storage tanks; sludge contained mercury. The sludge has been removed. The trench was 12.2 m (40 ft) long by 0.9 m (3 ft) wide and 0.9 m (3 ft) deep and lined with sand to allow the sludge water slurry to drain. Operated 1955-1970. (References: Carpenter and Cote 1994; DOE-RL 1994a, 1995a [Appendix K]; EPA 1996)	Soil	As, Ba, Cd, Cr, Pb, Hg, Ag, Se, Sulfate	$43,477
	120-KE-6 (183-KE Sodium Dichromate Tank)	Site of a vertical steel tank 5.8 m (19 ft) in diameter that was used for storage of sodium dichromate solution for water treatment at 183-KE. Unknown when removed. Concrete base and piping for the tank remain in place. No known releases, but residual dichromate possible in soil from years of loading and handling. Operated 1955-1971. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Soil, concrete	Cr	$50,793
	120-KW-5 (183-KW Sodium Dichromate Tank)	Site of a vertical steel tank 5.8 m (19 ft) in diameter that was used for storage of sodium dichromate solution for water treatment at 183-KW. Unknown when removed. Concrete base and piping for the tank remain in place. No known releases, but residual dichromate is possible in the soil because of years of loading and handling. Operated 1955-1971. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Soil, concrete	Cr	$50,793
	128-K-1 (100-K Burning Pit)	Used for burning and disposal of nonradioactive combustible waste such as chemical solvents, office and paint waste. Analogous to waste site 128-H-1. Dimensions are approximately 30 x 30 x 2.4 m deep (100 x 100 x 8 ft deep). (References: Carpenter and Cote 1994)	Soil, Debris	Organic solvents; petroleum hydrocarbons	$65,601
	128-K-2 (100-K Construction Dump & Burning Pit)	Used for burning and disposal of nonradioactive waste. Scrap metal; glass; nonfriable and friable asbestos; and office, laboratory and paint waste are exposed. Dimensions are approximately 244 x 85 x 1.5 m deep (800 x 280 x 5 ft deep). (References: Carpenter and Cote 1994)	Soil, Debris	Organic solvents; petroleum hydrocarbons	$120,098
	130-K-2[a](1717-K Waste oil storage tank)	Site of a former underground tank that stored used motor oil. Tank was removed in July 1989. No evidence was found to indicate leakage from the tank, as reported in logbook WHC-N-270. Location is adjacent to the 1717-K Building. Operated 1955-1972. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Soil	Petroleum hydrocarbons; undetermined organic chemicals	$116,233

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-KR-2 (cont.)	130-KE-1 (105-KE Emergency Diesel Oil Storage Tank)	Site of two 7,571-L (2,000-gal) emergency diesel oil storage tanks that were removed in 1992. No evidence of leakage was found. However, insulating material covering the tank exteriors showed detectable radioactive contamination when removed. The contaminated insulating material was disposed with the tanks. Location is adjacent to the 105-KE Reactor ventilation stack. Operated 1955-1971. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Soil	Undetermined radionuclides	$66,539
	130-KW-1 (105-KW Emergency Diesel Oil Storage Tank)	Site of two 7,571-L (2,000-gal) emergency diesel oil storage tanks that were removed in 1992. No evidence of leakage was found. However, radioactive contamination was discovered on the exterior of the tanks. The tanks were disposed as contaminated. The site was cleaned and closed under the Underground Storage Tank Program (no radioactivity was left at the site). Location is adjacent to the 105-KW Reactor ventilation stack. Operated 1955-1970. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Soil	Undetermined radionuclides	$66,539
	600-29 (100-K Construction Laydown Area)	46-acre site used as the laydown area for the construction of 105-KE Reactor during 1952-1954. Site contains surface chemical dumping areas with oil-stained soil and distressed vegetation. (Reference: Carpenter and Cote 1994)	Soil	Undetermined organic chemicals	$257,522
	UPR-100-K-1 (105-KE Fuel Storage Basin Leak)	Received water leaking from cracks in the 105-KE Reactor Fuel Storage Basin. The water is contaminated with radionuclides from accumulated sludge and leaking fuel elements in the Fuel Storage Basin. (References: Carpenter and Cote 1994, DOE-RL 1994a, EPA 1996)	Soil	H-3, C-14, Co-60, Sr-90, Cs-137, Eu-152, Eu-154, U-235, U-238, Pu-238, Pu-239/240	$74,341
100-IU-2	600-5[a] (Waste Oil Dump, Asphalt Heliport)	The site is a circular area of heavy oil or asphalt about 4.6 m (15 ft) in diameter, and a ditch covered with similar material about 7.6 m (25 ft) long, 37 cm (15 in.) wide, and 2.5 cm (1 in.) deep. A 10-cm- (4-in.) diameter pipe is in the center of the pad and flush with the surface. Homestead-type trash is scattered in the area. (References: Carpenter 1995, DOE-RL 1996)	Soil	Petroleum hydrocarbons; undetermined organic chemicals	$52,940
	600-52 (White Bluffs Surface Basin)	This site is a depression, 85 by 40 m (280 by 130 ft), adjacent to the pickling acid crib. Material in the crib may have washed into the depression, although previous sampling in the depression for the pickling acid crib ERA showed no contaminants at levels of concern. The depression may have also been used as a surface drain field for the While Bluffs Ice House. Some demolition debris is in the area. (References: Carpenter 1995; DOE-RL 1996, 1993e)	Soil	Cr, Zn	$81,274
	600-98 (East White Bluffs City Landfill [EWBCL])	Pre-Hanford municipal landfill covered with clean fill. Dimensions are approximately 98 x 61 x 3 m deep (320 x 200 x 10 ft deep).	Soil, debris	Probable pesticides and organic solvents	$96,591
	600-99 (J.A. Jones #2)	The site contained minor construction debris used by the J.A. Jones construction company, including wood, concrete, and metals. The site was exhumed and contents taken to a 200 Area burial ground in 1971. The dimensions are 9.1 x 9.1 m (30 x 30 ft). (References: Carpenter 1995, DOE-RL 1996)	Soil	Undetermined organic and inorganic chemicals	$55,087
	600-100 (White Bluffs Landfill; alias 600-119)	Pre-Hanford municipal landfill covered with clean fill. Dimensions are approximately 38 x 15 x 3 m deep (125 x 50 x 10 ft deep).	Soil, Debris	Probable pesticides and organic solvents	$55,087

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-IU-2 (cont.)	600-120(Spare Parts Burn Pit)	The site is a burn pit that was used for industrial and commercial wastes, and has been backfilled with coal ash. Dimensions unknown. (References: Carpenter 1995, DOE-RL 1996)	Ash, soil	Undetermined organic and inorganic chemicals	$112,225
	600-124 (Burn Site and Paint Disposal Area)	The area is littered with debris, such as burned wood, roofing materials, glass, nails, chips of dried paint, and paint cans. (References: Carpenter 1995, DOE-RL 1996)	Soil, miscellaneous debris	Undetermined organic and inorganic chemicals	$126,540
	600-125 (Waste Disposal Trench 1)	Pre-Hanford landfill trench covered with clean fill. Dimensions are approximately 30 x 7.6 x 3 m deep (100 x 25 x 10 ft deep). (Reference: Carpenter 1995)	Soil, Debris	Probable Pesticides and Organic Solvents	$55,087
	600-127[a](Fuel Storage Area)	A low soil berm ~ 55 x 35 m (182 x 116 ft) surrounds two loading docks. The soil is covered by a layer of coal ash. Fuel storage tanks may have been held in this area. The soil under the coal ash and adjacent to the berm is discolored, probably from petroleum contamination (oils and gasoline). (References: Carpenter 1995, DOE-RL 1996)	Soil, ash	Petroleum hydrocarbons; undetermined organic chemicals	$68,766
	600-128[a](Oil and Oil Filter Dump Site)	The site, about 2 m (6.6 ft) in diameter, contains oil and oil filters. (References: Carpenter 1995, DOE-RL 1996)	Soil	Petroleum hydrocarbons; undetermined organic chemicals	$52,940
	600-129 (White Bluffs Dump Site)	Pre-Hanford landfill and community dump site. Dimensions are approximately 201 x 152 x 3 m (660 x 500 x 10 ft deep). (Reference: Carpenter 1995)	Soil, Debris	Probable pesticides and organic solvents	$127,685
	600-131 (Special Fabrication Shop and Warehouse)	The site is the remnants of a fabrication shop, boilerhouse, warehouse, loading dock/well, and water station. The area is graveled and littered with debris. Solvents and oils were typically used in similar facilities. (References: Carpenter 1995, DOE-RL 1996)	Concrete, soil, transite, miscellaneous debris	Undetermined organic and inorganic chemicals	$116,233
	600-132 (Construction Contractor Shop Landfill)	This site is a large (~165 x 112 m [545 x 370 ft]) open-pit landfill that was contaminated and cleaned out. A notation in an old logbook suggests a potential for radioactive wastes (source unknown), but it is unknown if additional characterization work was done. Another employee reported that the site was used for disposal of oils and solvents. (References: Carpenter 1995, DOE-RL 1996)	Soil	Undetermined radionuclides, inorganic and organic chemicals	$145,983
	600-139[a] (Automotive Repair Shop)	The site has scattered debris, such as battery caps, gaskets, oil stains, and lenses from tail lights. Dimensions are about 30 x 20 m (100 x 66 ft). (References: Carpenter 1995, DOE-RL 1996)	Soil, miscellaneous debris	Petroleum hydrocarbons; undetermined organic chemicals	$55,087
	600-176 (White Bluffs Paint Disposal Area)	Excess paint materials were disposed of by dumping them on the ground. Dried paint chips remain at the site. (References: Carpenter 1995, DOE-RL 1996)	Soil, paint chips	Undetermined organic chemicals	$116,233
	600-181[a] (White Bluffs Oil Dump)	A large quantity of oils have been dumped on the surface in an area about 17 x 15 m (56 x 50 ft). (References: Carpenter 1995, DOE-RL 1996)	Soil	Petroleum hydrocarbons; undetermined organic chemicals	$52,940

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-IU-2 (cont.)	600-188 (White Bluffs Waste Disposal Trench 2)	The site is an open trench with industrial wastes filling about one-third of the trench. Empty 208-L (55-gal) drums and discolored soil remain in the 90 x 40 m (300 x 132 ft) site. (References: Carpenter 1995, DOE-RL 1996)	Soil, miscellaneous debris	Undetermined organic and inorganic chemicals	$84,679
	600-190 (White Bluffs Warehouse Tar/ Paint Disposal Area)	Tar and paints appear to have been dumped at the site. The site also contains warehouse sites and associated french drains, concrete foundations, valve boxes, and miscellaneous debris. (References: Carpenter 1995, DOE-RL 1996)	Soil, concrete, debris	Undetermined organic chemicals	$116,233
	600-201 (White Bluffs Paint and Solid Waste Disposal Site)	The site contains miscellaneous debris such as glass, metal shavings, canvas, and dried paint. (References: Carpenter 1995, DOE-RL 1996)	Soil, miscellaneous debris	Undetermined organic chemicals	$116,233
	628-1 (White Bluffs Burn Pit)	Approximately 1/4 acre has stressed vegetation. The burn pit is covered with sand and gravel. (References: Carpenter 1995, DOE-RL 1996)	Soil	Undetermined organic chemicals	$62,738
100-IU-6	600-3 (Hanford Townsite Dumping Area and Paint Pit)	The site is an old borrow pit, and a large (~490 x 280 m [1,600 x 925 ft]) area of scattered trash. Bulldozer tracks indicate an attempt to bury trash. Parts of the area show signs of burning and stressed vegetation. The site may have been used as railroad maintenance shop disposal yard. (References: Deford 1995, DOE-RL 1996)	Soil, asbestos miscellaneous debris	Undetermined organic and inorganic chemicals	$220,303
	600-107 (Cribs at 213-J&K Gable Mtn Plutonium Storage Vaults)	Two small (2.4-m- [8-ft] diameter, 4.6 m [15 ft] deep) gravel-filled concrete culverts on either side of the 213-J and K storage vaults were dug up in 1974 to allow a radiological survey. No contamination was found above background limits, and the excavated material was backfilled. (References: Deford 1995, DOE-RL 1996)	Concrete, soil	Undetermined radionuclides	$51,350
	600-108 213-J and K Gable Mtn Plutonium Storage Vaults)	The reinforced concrete facility was constructed into the side of Gable Mountain. The vaults are used for soil sample storage and seismic testing. The unit is 12.2 x 3.7 x 2.4 m deep (40 x 12 x 8 ft deep). If the vaults were used to store plutonium at all, it is thought to have been only briefly. However, explosives and hardware contaminated with radioactive sodium were stored there. No smearable radioactivity was detected, and the site has been released from radiation zone status. (References: Deford 1995, DOE-RL 1996)	Concrete	Undetermined radionuclides	$55,803
	600-109 (Hanford Trailer Camp Landfill [HTCL])	Domestic landfill for residences of Hanford Site construction workers. No hazardous materials known. Dimensions are approximately 30 x 30 x 2.4 m deep (100 x 100 x 8 ft deep).	Soil, debris	Probable pesticides and organic solvents	$65,601
	600-110 (Hanford Townsite Landfill [HTL])	Pre-Hanford municipal landfill for the Hanford townsite. No hazardous materials known. Dimensions are approximately 61 x 61 x 3 m deep (200 x 200 x 10 ft deep).	Soil, debris	Probable pesticides and organic solvents	$82,818
	600-111 (P-11 Critical Mass Laboratory)	The 2.4 x 2.4 m (8 x 8 ft) facility had concrete walls, cover, and base. It was retired in 1951 after a fire in the adjacent 120 Building caused structural damage. The facility was exhumed in 1974. It had received plutonium waste from the 120 Building. A 3.7-m (12-ft) steel pipe rising from a concrete slab remains at the site. (References: Deford 1995, DOE-RL 1996)	Concrete, soil	Undetermined radionuclides	$57,950

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
100-IU-6 (cont.)	600-202 (Four Burn and Burial Pits)	Four burn and burial pits are arranged in a rectangle, 150 x 75 x 6 to 12 m deep (500 x 250 x 20 to 40 ft deep). Miscellaneous debris, including glass, metal, and porcelain, are evident at the site. (References: Deford 1995, DOE-RL 1996)	Soil, miscellaneous debris	Undetermined organic chemicals	$179,942
	600-204 (Hanford Townsite Burn and Burial Trench)	The site was used as a burn pit and possibly burial ground. Miscellaneous debris (metal and glass fragments, fire-scarred rock, and cans) is scattered in the bottom. Site dimensions are approximately 45.8 x 6.1 x 1.2 m deep (150 x 20 x 4 ft deep). (References: Deford 1995, DOE-RL 1996)	Soil, miscellaneous debris	Undetermined organic chemicals	$55,087
	600-205 (Hanford Townsite Landfill 2)	Pre-Hanford municipal landfill for the Hanford townsite. No hazardous materials known. Dimensions are approximately 61 x 30 x 1.5 m deep (200 x 100 x 5 ft deep).	Soil, Debris	Probable pesticides and organic solvents	$69,331
	600-208 (Hanford Construction Camp Boiler House Ponds)	These are liquid waste disposal ponds serving the steam plants for the Hanford Construction Camp. The wastes in the water would have been "industrial and commercial wastes common to the period," which was considered to be mostly water softener brine. The dimensions of the ponds are 18.3 x 6.1 x 1.5 m deep (60 x 20 x 5 ft deep). (References: Deford 1995, DOE-RL 1996)	Soil	Undetermined organic and inorganic chemicals	$43,477
	UPR-600-16 (Fire and Contamination Spread)	A fire during decontamination of the P-11 Facility for plutonium criticality studies spread plutonium contamination throughout the facility. In 1974 the site was decontaminated, demolished, and released from radiation zone status. The dimensions provided are 55 x 30.5 m (180 x 100 ft). (References: Deford 1995, DOE-RL 1996)	Soil	Plutonium	$69,188
200-CW-3	216-N-1 Cooling Water Pond	Received cooling water from 212-N Building fuel storage basins. Site dimensions are approximately 152 x 30 x 1.8 m deep (.500 x 100 x 6 ft deep).	Soil	Co-60, Sr-90, Cs-137, Eu-155, U-238, Pu-239/240	$49,203
	216-N-2 Cooling Water Trench	Received basin water and sludge when the 212-N Building fuel storage basins were drained for special tests in 1947. Site dimensions are approximately 15 x 3 x 2.1 m deep (50 x 10 x 7 ft deep).	Soil	Co-60, Sr-90, Cs-137, Eu-155, U-238, Pu-239/240	$49,203
	216-N-3 Cooling Water Trench	Received sludge and residual water from cleanout of 212-N Building fuel storage basins when operations ceased in 1952. Site dimensions are approximately 15 x 6.1 x 1.8 m deep (50 x 20 x 6 ft deep).	Soil	Co-60, Sr-90, Cs-137, Eu-155, U-238, Pu-239/240	$49,203
	216-N-4 Cooling Water Pond	Received cooling water from 212-P Building fuel storage basins. Site dimensions are approximately 152 x 61 x 1.8 m deep (500 x 200 x 6 ft deep).	Soil	Co-60, Sr-90, Cs-137, Eu-155, U-238, Pu-239/240	$82,388
	216-N-5 Cooling Water Trench	Received sludge and residual water from cleanout of 212-P Building fuel storage basins when operations ceased in 1952. Site dimensions are approximately 24 x 4.6 x 1.8 m deep (80 x 15 x 6 ft deep).	Soil	Co-60, Sr-90, Cs-137, Eu-155, U-238, Pu-239/240	$49,203
	216-N-6 Cooling Water Pond	Received cooling water from 212-R Building fuel storage basins. Site dimensions are approximately 152 x 46 x 1.8 m deep (500 x 150 x 6 ft deep).	Soil	Co-60, Sr-90, Cs-137, Eu-155, U-238, Pu-239/240	$69,188

Table NA-2. Action Sites for Confirmation Sampling. (18 Sheets)

Operable Unit	Site Name	Current Site Knowledge	Media/ Material	Potential Contaminants	Estimated Cost of Confirmation Sampling
200-CW-3 (cont.)	216-N-7 Cooling Water Trench	Received sludge and residual water from cleanout of 212-R Building fuel storage basins when operations ceased in 1952. Site dimensions are approximately 24 x 4.6 x 1.8 m deep (80 x 15 x 6 ft deep).	Soil	Co-60, Sr-90, Cs-137, Eu-155, U-238, Pu-239/240	$49,203
TOTAL: 161 Remaining Sites for Confirmation Sampling					$12,288,024

NOTE: See Section N6.0 of this appendix for references cited throughout this table.

[a]This site is a petroleum site that is being remediated to cleanup standards established in the *Model Toxics Control Act* Cleanup Regulations (WAC 173-340) and is outside the CERCLA remedy selection process. It is anticipated that this site can be remediated by the Remove, Treat, and Dispose Alternative. However, should petroleum be found at depth in the soil or in groundwater, other remedial alternatives may be selected by the EPA, Ecology, and the DOE.

ATTACHMENT NB

COST ESTIMATE SUMMARIES

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ACRONYMS

bcf	bank cubic foot
COPC	contaminant of potential concern
CS	confirmation sampling (sites)
ERDF	Environmental Restoration Disposal Facility
HP	Health Physics
HPT	Health Physics Technician
LCY	loose cubic yard
lf	linear foot
LLW	low-level waste
MCACES	Micro Computer Aided Cost Estimating System
PM/CM	Project Management/Construction Management
RTD	remove, treat, dispose (sites)

ATTACHMENT NB
COST ESTIMATE SUMMARIES

NB1.0 INTRODUCTION

This attachment presents the methods used to develop the cost models in support of the Remedy Selection Process for Remaining 100 Area Source Operable Unit Waste Sites, as presented in Attachment NA (this document). The models are then used to generate cost estimates for work associated with this document. The estimates are included as attached Tables NB-1 through NB-3.

Two approaches were used to develop cost estimates for the two types of remedies for remaining sites requiring action: (1) remove, treat, dispose (RTD) sites, and (2) confirmation sampling (CS) sites. The RTD site estimates used the Micro Computer-Aided Cost Estimating System[1] (MCACES) estimating model, revised to include all costs associated with the remediation with the exception of remedial design costs. The CS site estimates used an estimating model calculated in an Excel (a registered trademark of the Microsoft Corporation) spreadsheet. Both models are explained in detail in Section NB2.0.

NB2.0 COST ESTIMATE MODELS

NB2.1 REMOVE, TREAT, AND DISPOSE SITES

Remediation costs for the RTD sites were estimated using the MCACES models. The estimated costs for each remedial action work activity for each operable unit are summarized in an Excel spreadsheet (Tables NB-1 and NB-2). Remediation estimates for 44 waste sites in 11 operable units were calculated.

Each RTD site was estimated with an excavation model tailored to a specific subsurface configuration. The various excavation models available in MCACES are:

1. Burial ground (small, medium to large)
2. Crib/french drain (small, medium, and large)
3. Trench (small, medium, and large)
4. Septic tank
5. Below-grade structure (small and medium)

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[1]Building Systems Design, Inc. (BSD), 1175 Peachtree St., 100 Colony Square, Suite 1600, Atlanta, Georgia 30361-6205

6. Reactor area piping (large).

Each RTD site was estimated with the most appropriate of the six models, based on waste site type and site-specific data. Site size categories are as follows:

Small <4,356 SF
Medium 4,357 SF to 87,120 SF
Large >87,120 SF

NB2.1.1 Summary of Model Input Parameters

The major quantity inputs necessary to support the model calculations are as follows:

- Type of site (per Section NB2.1)
- Length, width, and depth of waste site in linear feet (lf)
- Contaminated, uncontaminated, and demolition waste volume in bank cubic feet (bcf)
- Haulage distance for contaminated waste and borrow material.

NB2.1.2 Assumptions Used in Excavation Models

The assumptions used in the MCACES excavation models include the following:

- The model calculations include excavation, sampling, monitoring of the excavation, backfill, and site restoration.

- All contaminated material is assumed to be low-level waste (LLW).

- Field monitoring samples will be collected for every 200 loose cubic yards (LCY) excavated.

- All samples will be analyzed onsite. An additional 5% for quality assurance (QA)/quality control (QC) samples will be analyzed offsite.

- Material will be transported to the Environmental Restoration Disposal Facility (ERDF) in maximum individual loads of 15 LCY each.

- The transport and disposal rate of $53.08/LCY was calculated by the ERDF Subproject based on actual ERDF costs. This cost does not include ERDF life cycle capitol costs.

- Estimates include QA, Safety, project and construction management, and Health Physics (HP) oversight by the Environmental Restoration Contractor team.

NB2.1.3 MCACES Model Details

The MCACES models for excavation calculate 25 quantities from the inputs and use these to price all resources required to setup, sample, excavate, and restore each waste site. The models estimate total base cost plus Bechtel Hanford, Inc. markups and contingency. The following are fixed values used in the models to compute the estimates.

- Soil swell factor - 15%

- Demolition waste swell factor - 60%

- Uncontaminated soil excavation rate
  Small - 56 LCY/hr (the burial ground model uses 77 LCY/hr)
  Medium - 112 LCY/hr (the burial ground model uses 154 LCY/hr)
  Large - 224 LCY/hr (the burial ground model uses 154 LCY/hr)

- Contaminated soil excavation rate
  Small - 37 LCY/hr (the burial ground model uses 20 LCY/hr)
  Medium - 70 LCY/hr (the burial ground model uses 40 LCY/hr)
  Large - 140 LCY/hr (the burial ground model uses 40 LCY/hr)

- Demolition waste excavation rate - 12 LCY/hr (the burial ground model uses 16 LCY/hr)

- Sample analysis cost for onsite mobile laboratory - $400.00/Sample

- Sample analysis cost for offsite laboratory - $2,000/Sample

- Costs for mobilization/demobilization of nonsite-specific support facilities (e.g., office trailer, installation of power and telephone) are not included in the site-specific estimates. These costs are estimated to be $153,460 per mobilization/demobilization for each of the five areas in which extensive work will be performed.

The required resources are calculated using these inputs, and the resource quantities are priced according to the rate tables provided with MCACES. The MCACES models estimate all costs including applicable overhead charges and a contingency of 15.7%. Results of this estimating procedure are discussed in Section NB3.0.

NB2.2 CONFIRMATION SAMPLING SITES

Cost estimates for the CS sites were evaluated with an Excel spreadsheet model. Estimates for 153 waste sites in 11 operable units were calculated, and the results are listed in Table NB-3. Several of the calculations are dependent on the character of the wastes thought to be at the site. The sampling strategy for liquid waste sites follows the methodology presented in the approved Sampling and Analysis Plan for the 100 Areas (DOE-RL 1996), and the nonliquid waste site

follows an alternative statistical approach. Section NB2.2.2.2 describes the bases for the sampling strategy.

NB2.2.1 Summary of Model Input Parameters

The quality and quantity of information available for the CS sites varies greatly. The most complete information to date is summarized in the Waste Information Database System (WIDS) and other sources, and presented in Tables NA-1 and NA-2 (this document). Information pertinent to this cost estimate includes:

- Dimensions of the site (length, width, depth)
- General character of the waste (liquid or solid)
- Contaminants of potential concern (COPCs).

Where data regarding location or dimensions of a site are poor or nonexistent, certain assumptions were necessary to arrive at a sampling basis for the site. These are discussed below. The estimate includes costs for a geophysical survey of the site if essential information is lacking.

NB2.2.2 Confirmation Sampling Site Model Details

The following describes the basic formulae used in the calculations. Results of the confirmation sampling site model estimates are presented in Section NB3.0.

NB2.2.2.1 Area of Waste Site. The calculation of area is straightforward except where data are lacking. In these cases, liquid waste sites are assumed to be $\leq$10,000 ft^2 (930 m^2), and nonliquid waste sites are assumed to be >85,000 ft^2 (7,900 m^2). These assumptions have a direct bearing on number of samples necessary for confirmation, as discussed in the following subsections.

NB2.2.2.2 Number of Samples. Calculation of the number of samples necessary to confirm each site follows two different procedures, depending if the site is predominantly a liquid disposal site or a nonliquid site.

For liquid waste sites, which include french drains and septic tanks, the sampling scheme follows the approved Sampling and Analysis Plan for the 100 Area (DOE-RL 1996). This plan stratifies waste sites into three different categories depending on the total area of the site; the number of samples required is different for each category (Table NB-5). This sampling approach divides the waste site into a number of decision units and calls for the collection of four composite samples of four sub-samples (aliquots) from each decision unit. The four sample locations are chosen randomly, and four vertical samples at each location are collected and composited. The default value of four samples is assigned to waste sites whose dimensions are unknown, because most liquid waste sites are french drains or similar structures with areas $\leq$10,000 ft^2. This value is used for estimating purposes only; the sites with a paucity of historical information will be surveyed before sampling is performed to more accurately define the boundaries.

For nonliquid waste sites, the sampling strategy follows an alternative statistical method. A minimum of 6 and a maximum of 20 samples will be collected from each site, dependent on total area. Six samples will be collected from sites that are $\leq$10,000 ft^2 in area. Above this size, the following statistical formula is used to determine the number of samples:

$$n = (Z_{1-\alpha/2}\eta/d_r)^2$$

where:

n = number of samples

$Z_{1-\alpha/2}$= standard normal deviate that cuts off $(100\alpha/2)\%$ of the upper tail of the standard normal distribution

η = the coefficient of variation, = standard deviation/mean

d_r = relative error, $(|x-\mu|/\mu)$, where x is the estimated mean and μ is the true mean.

This formula is used where a reliable estimate of the standard deviation is not available, as discussed in Gilbert (1987, p. 33). The coefficient of variation is used because it is usually less variable than the standard deviation. Because no analytical data are available for these sites, some assumptions are necessary. These assumptions are as follows:

- The coefficient of variation, η, equals 0.5 for smaller sites, and is calculated to increase by 10% as the area doubles over 10,000 ft^2. This is to account for the expected increase of variability as the area increases.
- The relative error, d_r, equals 0.25
- The confidence level, $1-\alpha$, equals 20%.

With these assumptions, the number of samples, n, is based on a 20% chance of getting a set of data for which the relative error exceeds 25% for smaller sites. The same statement holds for larger sites, but because the coefficient of variation will be larger (e.g., 0.6 for a 30,000-ft^2 site), the number of samples will be greater.

Using the above formula and parameters, the maximum number of samples (20) corresponds to a surface area of approximately 85,000 ft^2. On this basis, waste sites with unknown dimensions are assigned a total surface area of >85,000 ft^2.

NB2.2.2.3 Cost of Analyses. Analytical costs are based on the number of samples and the COPCs. Costs per sample were based on six samples in the delivery group with a 45-day turnaround time. Individual sample costs would be expected to decrease with a larger total number of samples. Analytical costs used in the spreadsheet are as follows, based on current laboratory rates for a group of six samples and standard (45-day) turnaround time:

Radionuclides (α- and γ-spec):	$800
Organics (volatile organic analysis and semivolatile organic analysis):	$600
Metals:	$300

NB2.2.2.4 Site Survey. For sites with poorly known or unknown dimensions or subsurface detail, a geophysical investigation will be necessary to define the sampling effort and support closeout. Costs of this survey are a minimum of $1,500 for areas <10,000 ft^2. For larger sites, $0.05/$ft^2$ is added to the base $1,500 charge.

NB2.2.2.5 Excavation Costs. These values were based on the assumption that each sample consists of vertical composite samples, and excavation or drilling would be necessary to collect the sample aliquots. It was assumed that a backhoe can be used to collect samples up to 15 ft beneath the surface, and that drilling must be used for samples at a depth of greater than 15 ft. For sites ≤15 ft (4.6 m) deep, an allowance of $1,500/sample is used, as used in the approved site closure model. For sites deeper than 15 ft, a charge of $150/ft ($490/m) was used, which approximates the cost for hollow-stem auger drilling and sample retrieval.

NB2.2.2.6 Project Management/Construction Management (PM/CM). Anticipated hours/day for various personnel are listed in Table NB-4. Labor rates used are for fiscal year 1998. A minimum of 4 days/site is applied to each site for planning, mobilization, sampling, and demobilization. For sites less than 15 ft deep, PM/CM is based on a duration of 4 days for up to 10 samples and 6 days for over 10 samples. For deeper sites that will be sampled by drilling, a drilling rate of three boreholes/day was applied and the PM/CM estimated based on total drilling duration.

NB2.2.2.7 Miscellaneous. These charges include 2 HPTs/day of sampling and a per-sample charge for sampling and packaging equipment. For sites less than 15 ft deep, 1 day is charged for the HPTs for up to 10 samples, and 2 days is charged for greater than 10 samples. For the deeper sites, the three borehole/day duration was computed for HPT charges.

NB2.2.2.8 Planning and Closeout (P&C). These charges are on a per-site basis, with the hours and charges for each task listed in Table NB-4. These tasks include the preparation and approval of required pre-job documents and a closeout report for each site. The closeout report will include a statistical analysis of the sampling results.

NB2.2.2.9 Adders. These are the standard rates for direct distributables, G&A, and contingency (18.09%, 4.04%, and 15.70%, respectively), calculated on a compound basis in the order given.

NB3.0 RESULTS OF THE MODELS

Estimates for the RTD sites were compiled from the MCACES output sheets and are summarized in Table NB-1. This summary lists provides subtotals for each component of the model as well as the total estimate for each waste site. Subtotals for each operable unit are provided in Table NB-2. The total estimate for remediation of the RTD sites is $26,016,957.

Estimates for the CS sites model are presented in Table NB-3. The total for all sites is detailed for analyses, site investigation, excavation, PM/CM, miscellaneous, P&C, and adders. The total estimate for remediation of the CS sites is $11,802,678. The total estimate for RTD and CS sites is $37,819,635.

NB4.0 REFERENCES

DOE-RL, 1996, *100 Area Remedial Action Sampling and Analysis Plan*, DOE/RL-96-22, Rev. 1, U. S. Department of Energy, Richland Operations Office, Richland, Washington.

Gilbert, R.O., 1987, *Statistical Methods for Environmental Pollution Monitoring*, Van Nostrand Reinhold Company, New York, New York, 320 p.

Table NB-1. Summary of Remove, Treat, Dispose Estimates for All Operable Units.

	Operable Units	Labor	Equip.	Mat/ Supp.	Other	Direct Totals	S/C O/H & Profit	BHI Dir. Dist	BHI G&A	Subtotal	Conting.	Totals	Total w/ Mob/Demob
1	100HR	$823,464	$331,352	$133,442	$1,705,064	$2,993,322	$213,418	$606,716	$154,061	$3,967,517	$622,899	$4,590,416	$5,018,913
2	100FR	$653,050	$276,113	$106,663	$1,557,731	$2,593,557	$166,134	$522,134	$132,586	$3,414,411	$536,062	$3,950,473	$4,319,234
3	100BC	$463,552	$195,560	$72,371	$1,014,790	$1,746,273	$114,453	$352,049	$89,396	$2,302,171	$361,441	$2,663,612	$2,912,250
4	100DR	$1,997,150	$727,012	$207,153	$1,639,922	$4,571,237	$367,614	$934,469	$237,290	$6,110,810	$959,400	$7,070,210	$7,730,187
5	100KR	$1,055,776	$189,324	$67,370	$454,735	$1,767,205	$137,911	$360,447	$91,529	$2,357,092	$370,083	$2,727,155	$2,981,724
6	100IU (site 800-149)	$39,654	$11,962	$6,678	$80,963	$141,257	$11,469	$28,896	$7,338	$188,960	$29,667	$218,627	$239,035
	Totals	$5,032,646	$1,731,323	$595,677	$6,453,205	$13,812,851	$1,011,199	$2,804,711	$712,200	$18,340,961	$2,879,532	$21,220,493	$23,201,343
	100-KW Basin	$250,868	$101,613	$5,092	$340,253	$697,826	$0	$132,029	$33,526	$863,381	$141,594	$1,004,975	$1,098,786
	100-KE Basin	$479,590	$201,617	$13,131	$295,794	$990,132	$0	$187,333	$47,570	$1,225,035	$200,906	$1,425,941	$1,559,047
								Total D&D Work on 100 Area K Basins		$2,088,416	$342,500	$2,430,916	$2,657,833
								Subtotal (RA and D&D)		$20,429,377	$3,222,032	$23,651,409	$25,859,176
	100 Area RA Common Mobilization/Demobilization Costs (9 ea. Mob/Demobs).	$444,528	$220,311	$385,895	$237,798	$1,288,532	$273,753	$291,800	$74,097	$1,908,182	$299,585	$2,207,767	(Included in above, Note 16)
								Grand Total (RA and D&D)		$22,337,559	$3,521,617	$25,859,176	

General / Generic Qualifications & Assumptions

1. SUBCONTRACT O/H & PROFIT INCLUDES FIELD OVERHEAD, HOME OFFICE OVERHEAD, PROFIT, BOND, AND B&O TAX.
2. ERC TEAM WAGE RATES, DIRECT DISTRIBS (DD) AND GENERAL & ADMIN. (G&A) ARE PER IOM, "FY 98 ALL IN WAGE RATES FOR BHI, THI, HAMTC, BY RESOURCE CODE", DATED 10/17/97, TRACKING NUMBER 052378.
3. SUBCONTRACTOR WAGE RATES ARE BASED ON THE HANFORD SITE STABILIZATION AGREEMENT (HSSA), APPENDIX A SUMMARY REVISED NOVEMBER 14, 1997.
4. ALL WAGE RATES INCLUDE 4% OVERTIME.
5. MATERIAL SALES TAX, CURRENT RATE 8%. SALES TAX NOT APPLIED TO EQUIPMENT (OWNER OPERATOR). SALES TAX WOULD APPLY IF IT IS RENTAL EQUIPMENT.
6. COSTS AT 1998 DOLLARS.
7. PRIME CONTRACTOR MARKUP, PER "PRIME CONTRACTOR (SUBCONTRACTOR TO ERC TEAM) MARKUP TABLE FOR BUILDING TRADES", REV. DATE 11/21/95.
8. RA CONTINGENCY WAS SET AT 15.7% WITHIN THE MODELS REFLECTING THE RISK ANALYSIS PERFORMED FOR THE 1997 BASELINE FOR THE REMEDIAL ACTION SITES.
9. D&D CONTINGENCY WAS SET AT 16.4% WITHIN THE MODELS REFLECTING THE RISK ANALYSIS PERFORMED FOR THE 1997 BASELINE FOR THE D&D OF FACILITIES.
10. 100 AREA RA MOBILIZATION COST AND NUMBER OF MOB/DEMOBS HAVE BEEN REFINED TO REFLECT CURRENT PROJECT EXPERIENCE AND PHILOSOPHY (INPUT FROM LARRY DILLION).
11. D&D MOBILIZATION IS NOT PRICED. ALL EQUIPMENT IS MOBILIZED WITHIN THE SCOPE OF THE STRUCTURE/BUILDING DEMOLITION. FOR ADDITIONAL DETAILS SEE THE SPECIFIC QUALIFICATIONS & ASSUMPTIONS FOR THE BASINS.
12. THE BASIC SCOPE OF THE 100-KE AND 100-KW BASINS IS REMEDIATION OF CONCRETE AND SOIL AT GRADE AND BELOW GRADE FOR THE STORAGE AREA AND TRANSFER AREA AS IDENTIFIED ON HANFORD DRAWING H-1-34853 REV 1, "STRUCTURAL/DWG LIST GROUND LEVEL PLAN AND SECTIONS".
13. 100-KE BASIN D&D ASSUMES ALL CONCRETE AT GRADE AND BELOW GRADE, AND SOIL WITHIN 3 FEET OF THE CONCRETE IS LLW AND WILL BE SHIPPED TO ERDF.
14. 100-KW BASIN D&D ASSUMES ALL CONCRETE AT GRADE AND TO A DEPTH OF 15 FEET IS LLW, AND ASSUMES 44 FEET OF CONCRETE CONSTRUCTION/EXPANSION JOINTS HAVE LEAKED AND CONTAMINATED THE SOIL TO A DEPTH OF 3 FEET.
15. ALL PRICING WAS ESTIMATED USING THE LATEST MCACES MODELS DEVELOPED FOR THE 1999 BASELINE (EXCLUDING 100 AREA RA MOB/DEMOB). THE 100 AREA RA MOB/DEMOB COSTS WERE ESTIMATED USING EXCEL SPREADSHEETS FOR THE 1999 BASELINE.
16. COMMON MOBILIZATION/DEMOBILIZATION PRICING WAS SPREAD BACK TO THE SITES BASED ON THE PERCENT SPREAD OF TOTAL COST.

Table NB-2a. Summary of Remove, Treat, Dispose Estimates for the 100-BC Area.

Site Name	Labor	Equip.	Mat/ Supp.	Other	Direct Totals	S/C O/H & Profit	BHI Dir. Dist	BHI G&A	Subtotal	Conting.	Totals	Total w/ Mob/Demob
1 116-B-7 Outfall Structure	$55,430	$19,121	$7,504	$51,309	$133,364	$13,325	$27,754	$7,047	$181,490	$28,494	$209,984	$229,585
2 128-B-3 Coal Ash and Demolition W. Site	$260,186	$122,529	$46,370	$817,750	$1,246,835	$67,285	$248,631	$63,135	$1,625,886	$255,264	$1,881,150	$2,056,748
3 132-B-6 Outfall Structure (1904-B2)	$55,462	$19,175	$7,409	$49,225	$131,271	$13,317	$27,356	$6,947	$178,891	$28,086	$206,977	$226,297
4 132-C-2 Outfall Structure	$92,474	$34,735	$11,088	$96,506	$234,803	$20,526	$48,308	$12,267	$315,904	$49,597	$365,501	$399,619
Totals	$463,552	$195,560	$72,371	$1,014,790	$1,746,273	$114,453	$352,049	$89,396	$2,302,171	$361,441	$2,663,612	$2,912,250

Qualifications & Assumptions

1. SUBCONTRACT O/H & PROFIT INCLUDES FIELD OVERHEAD, HOME OFFICE OVERHEAD, PROFIT, BOND, AND B&O TAX.
2. ERC TEAM WAGE RATES, DIRECT DISTRIBS (DD) AND GENERAL & ADMIN. (G&A) ARE PER IOM, "FY 98 ALL IN WAGE RATES FOR BHI, THI, HAMTC, BY RESOURCE CODE", DATED 10/17/97, TRACKING NUMBER 052378.
3. SUBCONTRACTOR WAGE RATES ARE BASED ON THE HANFORD SITE STABILIZATION AGREEMENT (HSSA), APPENDIX A SUMMARY REVISED NOVEMBER 14, 1997.
4. ALL WAGE RATES INCLUDE 4% OVERTIME.
5. MATERIAL SALES TAX, CURRENT RATE 8%. SALES TAX NOT APPLIED TO EQUIPMENT (OWNER OPERATOR). SALES TAX WOULD APPLY IF IT IS RENTAL EQUIPMENT.
6. COSTS AT 1998 DOLLARS.
7. PRIME CONTRACTOR MARKUP, PER "PRIME CONTRACTOR (SUBCONTRACTOR TO ERC TEAM) MARKUP TABLE FOR BUILDING TRADES", REV. DATE 11/21/95.
8. CONTINGENCY WAS SET AT 15.7% WITHIN THE MODELS REFLECTING THE RISK ANALYSIS PERFORMED FOR THE 1998 BASELINE FOR THE REMEDIAL ACTION SITES.
9. COMMON MOBILIZATION/DEMOBILIZATION PRICING WAS SPREAD BACK TO THE SITES BASED ON THE PERCENT SPREAD OF TOTAL COST. SEE SUMMARY FOR MOB/DEMOB PRICING.

Table NB-2b. Summary of Remove, Treat, Dispose Estimates for the 100-DR Area.

Site Name	Labor	Equip.	Mat/ Supp.	Other	Direct Totals	S/C O/H & Profit	BHI Dir. Dist	BHI G&A	Subtotal	Conting.	Totals	Total w/ Mob/Demob
1 100-D-1 Silica Gel Burial Ground	$39,204	$11,400	$5,618	$30,459	$86,681	$9,926	$18,278	$4,641	$119,526	$18,766	$138,292	$151,201
2 100-D-2 Lead Sheeting	$1,137	$118	$579	$10,237	$12,071	$259	$2,333	$592	$15,255	$2,395	$17,650	$19,298
3 100-D-3 Silica Gel Burial Site	$41,387	$12,430	$6,665	$49,270	$109,752	$10,704	$22,790	$5,787	$149,033	$23,398	$172,431	$188,527
4 100-D-4 Liquid Waste Site Trench	$149,352	$69,144	$25,231	$404,279	$648,006	$39,199	$130,019	$33,016	$850,240	$133,486	$983,728	$1,075,555
5 100-D-31 Process Sewer System	$721,903	$295,231	$66,063	$312,142	$1,395,339	$129,438	$288,488	$73,256	$1,886,521	$296,184	$2,182,705	$2,386,452
6 116-D-5 Outfall Structure (1904-D)	$86,091	$32,442	$10,901	$101,070	$230,504	$19,710	$47,341	$12,021	$309,576	$48,604	$358,180	$391,615
7 116-DR-5 Outfall Structure (1904-DR)	$51,911	$17,771	$7,188	$47,037	$123,907	$12,754	$25,856	$6,566	$169,083	$26,546	$195,629	$213,890
8 120-D-2 Waste Acid Reservoir (186-D)	$670,570	$203,456	$50,614	$299,847	$1,224,487	$90,520	$248,799	$63,178	$1,626,984	$255,437	$1,882,421	$2,058,136
9 100-D-12 Sod. Dich./Sulf. Acid Unload. Sta.	$41,416	$12,538	$6,855	$53,735	$114,548	$10,797	$23,715	$6,022	$155,080	$24,348	$179,428	$196,177
10 116-D-8 100-D Cask Storage Pad	$158,644	$63,487	$21,750	$297,490	$541,371	$35,357	$109,117	$27,708	$713,553	$112,028	$825,581	$902,646
11 116-DR-7 Inkwell Crib	$35,533	$8,995	$5,689	$34,356	$84,573	$9,150	$17,733	$4,503	$115,959	$18,206	$134,165	$146,689
Totals	$1,997,150	$727,012	$207,153	$1,639,922	$4,571,237	$367,814	$934,469	$237,290	$6,110,810	$959,400	$7,070,210	$7,730,187

Qualifications & Assumptions

1. SUBCONTRACT O/H & PROFIT INCLUDES FIELD OVERHEAD, HOME OFFICE OVERHEAD, PROFIT, BOND, AND B&O TAX.
2. ERC TEAM WAGE RATES, DIRECT DISTRIBS (DD) AND GENERAL & ADMIN. (G&A) ARE PER IOM, "FY 98 ALL IN WAGE RATES FOR BHI, THI, HAMTC, BY RESOURCE CODE", DATED 10/17/97, TRACKING NUMBER 052378.
3. SUBCONTRACTOR WAGE RATES ARE BASED ON THE HANFORD SITE STABILIZATION AGREEMENT (HSSA), APPENDIX A SUMMARY REVISED NOVEMBER 14, 1997.
4. ALL WAGE RATES INCLUDE 4% OVERTIME.
5. MATERIAL SALES TAX, CURRENT RATE 8%. SALES TAX NOT APPLIED TO EQUIPMENT (OWNER OPERATOR). SALES TAX WOULD APPLY IF IT IS RENTAL EQUIPMENT.
6. COSTS AT 1998 DOLLARS.
7. PRIME CONTRACTOR MARKUP, PER "PRIME CONTRACTOR (SUBCONTRACTOR TO ERC TEAM) MARKUP TABLE FOR BUILDING TRADES", REV. DATE 11/21/95.
8. CONTINGENCY WAS SET AT 15.7% WITHIN THE MODELS REFLECTING THE RISK ANALYSIS PERFORMED FOR THE 1998 BASELINE FOR THE REMEDIAL ACTION SITES.
9. COMMON MOBILIZATION/DEMOBILIZATION PRICING WAS SPREAD BACK TO THE SITES BASED ON THE PERCENT SPREAD OF TOTAL COST. SEE SUMMARY FOR MOB/DEMOB PRICING.

Table NB-2c. Summary of Remove, Treat, Dispose Estimates for the 100-FR Area.

Site Name	Labor	Equip.	Mat/ Supp.	Other	Direct Totals	S/C O/H & Profit	BHI Dir. Dist	BHI G&A	Subtotal	Conting.	Totals	Total w/ Mob/Demob
1 116-F-8 Outfall Structure (1904-F)	$54,972	$23,100	$7,279	$47,245	$132,596	$14,742	$27,876	$7,079	$182,293	$28,620	$210,913	$230,601
2 116-F-15 Radiation Crib in 108-F Building	$1,335	$231	$705	$10,287	$12,558	$344	$2,441	$620	$15,963	$2,506	$18,469	$20,193
3 116-F-16 PNL Outfall Structure	$72,665	$30,055	$8,794	$69,688	$181,202	$18,185	$37,724	$9,579	$246,690	$38,730	$285,420	$312,063
4 1607-F-2 Septic Tank and Drain Field	$351,952	$162,468	$61,942	$1,140,819	$1,717,181	$88,324	$341,602	$86,743	$2,233,850	$350,715	$2,584,565	$2,825,824
5 1607-F-6 Septic Tank and Drain Field	$65,574	$25,756	$10,754	$126,797	$228,881	$17,678	$46,649	$11,846	$305,054	$47,893	$352,947	$385,693
6 100-F-2 Strontium Gardens	$86,283	$30,117	$11,544	$117,511	$245,455	$19,398	$50,110	$12,724	$327,685	$51,446	$379,131	$414,521
7 120-F-1 Glass Dump	$20,269	$4,386	$5,645	$45,384	$75,684	$7,465	$15,732	$3,995	$102,876	$16,152	$119,028	$130,139
Totals	$653,050	$276,113	$106,663	$1,557,731	$2,593,557	$166,134	$522,134	$132,586	$3,414,411	$536,062	$3,950,473	$4,319,234

Qualifications & Assumptions

1. SUBCONTRACT O/H & PROFIT INCLUDES FIELD OVERHEAD, HOME OFFICE OVERHEAD, PROFIT, BOND, AND B&O TAX.
2. ERC TEAM WAGE RATES, DIRECT DISTRIBS (DD) AND GENERAL & ADMIN. (G&A) ARE PER IOM, "FY 98 ALL IN WAGE RATES FOR BHI, THI, HAMTC, BY RESOURCE CODE", DATED 10/17/97, TRACKING NUMBER 052378.
3. SUBCONTRACTOR WAGE RATES ARE BASED ON THE HANFORD SITE STABILIZATION AGREEMENT (HSSA), APPENDIX A SUMMARY REVISED NOVEMBER 14, 1997.
4. ALL WAGE RATES INCLUDE 4% OVERTIME.
5. MATERIAL SALES TAX, CURRENT RATE 8%. SALES TAX NOT APPLIED TO EQUIPMENT (OWNER OPERATOR). SALES TAX WOULD APPLY IF IT IS RENTAL EQUIPMENT.
6. COSTS AT 1998 DOLLARS.
7. PRIME CONTRACTOR MARKUP, PER "PRIME CONTRACTOR (SUBCONTRACTOR TO ERC TEAM) MARKUP TABLE FOR BUILDING TRADES", REV. DATE 11/21/95.
8. CONTINGENCY WAS SET AT 15.7% WITHIN THE MODELS REFLECTING THE RISK ANALYSIS PERFORMED FOR THE 1998 BASELINE FOR THE REMEDIAL ACTION SITES.
9. COMMON MOBILIZATION/DEMOBILIZATION PRICING WAS SPREAD BACK TO THE SITES BASED ON THE PERCENT SPREAD OF TOTAL COST. SEE SUMMARY FOR MOB/DEMOB PRICING.

Table NB-2d. Summary of Remove, Treat, Dispose Estimates for the 100-HR Area.

Site Name	Labor	Equip.	Mat/ Supp.	Other	Direct Totals	S/C O/H & Profit	BHI Dir. Dist	BHI G&A	Subtotal	Conting.	Totals	Total w/ Mob/Demob
1 100-H-11 Expansion Box French Drain E	$39,144	$12,849	$5,618	$30,348	$87,959	$10,253	$18,582	$4,718	$121,512	$19,077	$140,589	$153,712
2 100-H-12 Exp. Box Fr. Dr. F & Lead Shielding	$39,144	$12,849	$5,618	$30,348	$87,959	$10,253	$18,582	$4,718	$121,512	$19,077	$140,589	$153,712
3 100-H-13 French Drain G	$39,144	$12,849	$5,618	$30,348	$87,959	$10,253	$18,582	$4,718	$121,512	$19,077	$140,589	$153,712
4 100-H-14 Surface Contamination Zone H	$49,046	$18,462	$7,998	$75,072	$150,578	$13,400	$31,025	$7,878	$202,881	$31,852	$234,733	$256,644
5 100-H-22 Contaminated by Eff. Line Leakage	$104,940	$48,984	$16,561	$220,644	$391,129	$28,186	$79,334	$20,145	$516,794	$81,451	$600,245	$656,276
6 151-H Electrical Substation (100-H-24)	$38,368	$10,948	$6,339	$51,467	$107,122	$10,157	$22,189	$5,635	$145,103	$22,781	$167,884	$183,555
7 100-H-31 PCB in Soil at 105-H Reactor	$39,144	$12,849	$5,618	$30,348	$87,959	$10,253	$18,582	$4,718	$121,512	$19,077	$140,589	$153,712
8 118-H-5 1904 Outfall Structure	$42,644	$14,788	$6,215	$35,913	$99,558	$11,428	$20,999	$5,332	$137,317	$21,559	$158,876	$173,706
7 116-H-9 Crib	$37,888	$10,951	$5,848	$30,674	$85,361	$9,851	$18,014	$4,574	$117,800	$18,495	$136,295	$149,018
8 1607-H-2 Septic Tank and Drain Field	$323,845	$148,814	$56,447	$1,023,313	$1,552,419	$80,971	$309,037	$78,474	$2,020,901	$317,281	$2,338,182	$2,556,442
9 1607-H-4 Septic Tank and Drain Field	$70,157	$27,011	$11,762	$146,389	$255,319	$18,413	$51,790	$13,151	$338,673	$53,172	$391,845	$428,422
Totals	$823,464	$331,352	$133,442	$1,705,064	$2,993,322	$213,418	$606,716	$154,061	$3,967,517	$622,899	$4,590,416	$5,018,913

Qualifications & Assumptions

1. SUBCONTRACT O/H & PROFIT INCLUDES FIELD OVERHEAD, HOME OFFICE OVERHEAD, PROFIT, BOND, AND B&O TAX.
2. ERC TEAM WAGE RATES, DIRECT DISTRIBS (DD) AND GENERAL & ADMIN. (G&A) ARE PER IOM, "FY 98 ALL IN WAGE RATES FOR BHI, THI, HAMTC, BY RESOURCE CODE", DATED 10/17/97, TRACKING NUMBER 052376.
3. SUBCONTRACTOR WAGE RATES ARE BASED ON THE HANFORD SITE STABILIZATION AGREEMENT (HSSA), APPENDIX A SUMMARY REVISED NOVEMBER 14, 1997.
4. ALL WAGE RATES INCLUDE 4% OVERTIME.
5. MATERIAL SALES TAX, CURRENT RATE 8%. SALES TAX NOT APPLIED TO EQUIPMENT (OWNER OPERATOR). SALES TAX WOULD APPLY IF IT IS RENTAL EQUIPMENT.
6. COSTS AT 1998 DOLLARS.
7. PRIME CONTRACTOR MARKUP, PER "PRIME CONTRACTOR (SUBCONTRACTOR TO ERC TEAM) MARKUP TABLE FOR BUILDING TRADES", REV. DATE 11/21/95.
8. CONTINGENCY WAS SET AT 15.7% WITHIN THE MODELS REFLECTING THE RISK ANALYSIS PERFORMED FOR THE 1998 BASELINE FOR THE REMEDIAL ACTION SITES.
9. COMMON MOBILIZATION/DEMOBILIZATION PRICING WAS SPREAD BACK TO THE SITES BASED ON THE PERCENT SPREAD OF TOTAL COST. SEE SUMMARY FOR MOB/DEMOB PRICING.

Table NB-2e. Summary of Remove, Treat, Dispose Estimates for the 100-KR Area.

	Site Name	Labor	Equip.	Mat/ Supp.	Other	Direct Totals	S/C O/H & Profit	BHI Dir. Dist	BHI G&A	Subtotal	Conting.	Totals	Total w/ Mob/Demob
1	100-K-14 Acid Neutralization Pit (183-KE)	$39,206	$12,971	$5,642	$30,570	$88,389	$10,303	$18,672	$4,741	$122,105	$19,170	$141,275	$154,462
2	100-K-18 Caustic Neutralization Pit (183-KW)	$30,251	$5,888	$4,723	$25,484	$66,346	$7,432	$13,959	$3,545	$91,282	$14,331	$105,613	$115,472
3	100-K-34 Acid Neutralizaton Pit (183-KW)	$30,441	$6,149	$4,787	$25,821	$67,198	$7,566	$14,145	$3,592	$92,501	$14,523	$107,024	$117,014
4	116-K-3 (Outfall Structure, 1904-K, 1908-K)	$144,904	$49,591	$14,694	$116,713	$325,902	$26,726	$66,717	$16,942	$436,287	$68,497	$504,784	$551,904
5	100-K-53 Glycol Heat Rec. Undgmd P'lines (100KE)	$335,546	$37,598	$8,253	$69,831	$451,228	$24,826	$90,069	$22,871	$588,994	$92,472	$681,466	$745,078
6	100-K-54 Glycol Heat Rec. Underground P'lines	$335,546	$37,598	$8,253	$69,831	$451,228	$24,826	$90,069	$22,871	$588,994	$92,472	$681,466	$745,078
7	120-KE-1 Filter Water Facity Dry Well (183-KE)	$30,441	$6,149	$4,787	$25,821	$67,198	$7,566	$14,145	$3,592	$92,501	$14,523	$107,024	$117,014
8	120-KE-2 Filter Waste Facility Fr. Dr. (183-KE)	$39,595	$13,746	$5,754	$32,590	$91,685	$10,617	$19,356	$4,915	$126,573	$19,872	$146,445	$160,115
9	120-KW-1 Filter Water Facility Dry Well (183-KW)	$30,251	$5,888	$4,723	$25,484	$66,346	$7,432	$13,959	$3,545	$91,282	$14,331	$105,613	$115,472
10	120-KW-2 Filter Waste Facility Fr. Drn. (183-KW)	$39,595	$13,746	$5,754	$32,590	$91,685	$10,617	$19,356	$4,915	$126,573	$19,872	$146,445	$160,115
	Totals	$1,055,776	$189,324	$67,370	$454,735	$1,767,205	$137,911	$360,447	$91,529	$2,357,092	$370,063	$2,727,155	$2,981,724

Qualifications & Assumptions

1. SUBCONTRACT O/H & PROFIT INCLUDES FIELD OVERHEAD, HOME OFFICE OVERHEAD, PROFIT, BOND, AND B&O TAX.
2. ERC TEAM WAGE RATES, DIRECT DISTRIBS (DD) AND GENERAL & ADMIN. (G&A) ARE PER IOM, "FY 98 ALL IN WAGE RATES FOR BHI, THI, HAMTC, BY RESOURCE CODE", DATED 10/17/97, TRACKING NUMBER 052378.
3. SUBCONTRACTOR WAGE RATES ARE BASED ON THE HANFORD SITE STABILIZATION AGREEMENT (HSSA), APPENDIX A SUMMARY REVISED NOVEMBER 14, 1997.
4. ALL WAGE RATES INCLUDE 4% OVERTIME.
5. MATERIAL SALES TAX, CURRENT RATE 8%. SALES TAX NOT APPLIED TO EQUIPMENT (OWNER OPERATOR). SALES TAX WOULD APPLY IF IT IS RENTAL EQUIPMENT.
6. COSTS AT 1998 DOLLARS.
7. PRIME CONTRACTOR MARKUP, PER "PRIME CONTRACTOR (SUBCONTRACTOR TO ERC TEAM) MARKUP TABLE FOR BUILDING TRADES", REV. DATE 11/21/95.
8. CONTINGENCY WAS SET AT 15.7% WITHIN THE MODELS REFLECTING THE RISK ANALYSIS PERFORMED FOR THE 1998 BASELINE FOR THE REMEDIAL ACTION SITES.
9. COMMON MOBILIZATION/DEMOBILIZATION PRICING WAS SPREAD BACK TO THE SITES BASED ON THE PERCENT SPREAD OF TOTAL COST. SEE SUMMARY FOR MOB/DEMOB PRICING.

Table NB-3. Parameters and Results for Confirmation Sampling Cost Estimates. (Page 1 of 5)

Operable	Number of		Dimensions (ft)			Liquid		COPCs		Site			Individual Costs							Total
Unit	Waste Site	Name of Waste Site	Length	Width	Depth	Waste?	Rad	Organics	Metals	Invest?	Area	# Samples	Analyses	Site Invest.	Excavation	PM/CM	Misc.	P & C	Adders	Cost
100-BC-1	100-B-3	Former Hot Thimble Burial Ground	100	25	20	N	Y	Y	Y	Y	2,500	10	17000	1500	30000	11677	1047	6702	29309	$97,235
100-BC-1	100-B-5	Effluent Vent Disposal Trench (unused)	100	10	10	Y	Y		Y	N	1,000	8	8800	0	12000	8801	469	6702	15867	$52,638
100-BC-1	100-B-10	Leak from 116-B-11 (107-B) Retention Basin				Y	Y		Y	N	unknown	8	8800	0	12000	8801	469	6702	15867	$52,638
100-BC-1	116-B-15	105-B Fuel Storage Basin Cleanout Percolation Pit	100	50	6	Y	Y			N	5,000	8	6400	0	12000	8801	469	6702	14831	$49,203
100-BC-1	120-B-1	105-B Battery Acid Sump				Y		Y	Y	Y	unknown	8	7200	10000	12000	8801	469	6702	19491	$64,663
100-BC-1	126-B-3	184-B Coal Pit	400	225	10	N	N	N	Y	Y	90,000	24	7200	6000	36000	13115	980	6702	30203	$100,201
100-BC-1	128-B-2	100-B Burn Pit #2	450	50	30	Y		Y	Y	N	22,500	18	16200	0	81000	17429	2224	6702	53313	$176,869
100-BC-1	132-B-1	108-B Tritium Separation Facility	150	32		Y	Y			Y	4,800	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-BC-1	132-B-3	108-B Ventilation Exhaust Stack Site	30	250	18	N	Y			Y	7,500	10	8000	1500	27000	11677	1047	6702	24131	$80,057
100-BC-1	132-B-4	117-B Filter Building	59	120	25	N	Y			Y	7,080	10	8000	1500	37500	11677	1047	6702	28662	$95,088
100-BC-1	132-B-5	115-B/C Gas Recirculation Facility	186	98	11	N	Y			N	18,228	12	9600	0	18000	13115	916	6702	20855	$69,188
100-BC-1	1607-B-2(124-B-2)	Septic Tank System for 105-B Reactor and offices.	300	75	10	Y	Y			Y	22,500	12	9600	2625	18000	13115	916	6702	21988	$72,945
100-BC-1	1607-B-7(124-C-1)	Septic Tank System for 183-B water treatment plant.	27.7	27.7	10	Y	Y			Y	767	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-BC-2	100-B-1	Surface Chemical and Solid Waste Dumping Area & Laydown Yard	150	100		N	N	Y	Y	Y	15,000	12	10800	2250	18000	13115	916	6702	22344	$74,126
100-BC-2	100-C-3	119-C Sample Building French Drain	1	1		Y		Y	Y	Y	1	8	7200	1500	12000	8801	469	6702	15823	$52,495
100-BC-2	100-C-7	183-C Filter Building/Pumproom Facility foundation and demolition waste	305	290	10	N		Y	Y	Y	88,450	24	21600	5923	36000	13115	980	6702	36383	$120,703
100-BC-2	116-C-3	105-C Chemical Waste Tanks (unused)	12	12	12	N		Y	Y	Y	144	10	9000	1500	15000	8801	479	6702	17899	$59,382
100-BC-2	116-C-6	105-C Fuel Storage Basin Cleanout Percolation Pit	85.1	85.1	6	Y	Y		Y	N	7,242	8	8800	0	12000	8801	469	6702	15867	$52,638
100-BC-2	128-C-1	100-C Burning Pit	225	125		N		Y	Y	N	28,125	14	12600	0	21000	13115	926	6702	23449	$77,792
100-BC-2	132-C-1	116-C Reactor Stack Burial Ground	200	30	15	N	Y			N	6,000	10	8000	0	15000	8801	479	6702	16821	$55,803
100-BC-2	132-C-3	117-C Filter Building Site	59	100	25	N	Y			Y	5,900	10	8000	1500	37500	11677	1047	6702	28662	$95,088
100-BC-2	1607-B10	Septic Tank and Drain Field for 183 C water treatment plant.	75	66.25	10	Y	Y			Y	4,969	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-BC-2	1607-B11	Septic Tank and Drain Field for 183 C water filter pumphouse.	75	66.25	10	Y	Y			Y	4,969	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-BC-2	1607-B8	Septic Tank and Drain Field for 190 C pumphouse	25.3	25.3	10	Y	Y			Y	640	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-BC-2	1607-B9	Septic Tank and Drain Field for 105 C Reactor Building	80	66.25	10	Y	Y			Y	5,300	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-DR-1	100-D-7	Dumping Area	400	131	2	N	N	Y	Y	Y	52,400	18	16200	4120	27000	12932	976	6045	29027	$96,300
100-DR-1	100-D-8	105-DR Process Sewer Outfall Site; 1907-DR				Y	Y	Y		Y	unknown	8	11200	10000	12000	8801	469	6702	21217	$70,389
100-DR-1	100-D-24	119D Sample Building French Drain				Y	Y	Y	Y	Y	unknown	8	13600	10000	12000	8801	469	6702	22253	$73,824
100-DR-1	100-D-30	190-D Sodium Dichromate Soil Contamination	304	3.3	10	N			Y	N	1,003	10	3000	0	15000	8801	479	6702	14663	$48,645
100-DR-1	116-D-10	105-D Fuel Storage Basin Cleanout Percolation Pit	354	27	10	Y	Y			Y	9,558	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-DR-1	128-D-2	Burn Pit Site	240	240		N	Y	Y	Y	Y	57,600	19	32300	4380	28500	13115	953	6702	37087	$123,037
100-DR-1	130-D-1	1716-D Gasoline Storage Tank	20	20	15	N	N	Y	N	N	400	10	6000	0	15000	8801	479	6702	15958	$52,940
100-DR-1	132-D-1	115-D/DR Gas Recirculating Facility	168	98	11	N	Y			Y	16,464	12	9600	2323	18000	13115	916	6702	21858	$72,513
100-DR-1	132-D-2	117-D Filter Building	59	39	27	N	Y			Y	2,301	10	8000	1500	40500	11677	1047	6702	29957	$99,382

Table NB-3. Parameters and Results for Confirmation Sampling Cost Estimates. (Page 2 of 5)

Operable Unit	Number of Waste Site	Name of Waste Site	Dimensions (ft) Length	Width	Depth	Liquid Waste?	Rad	COPCs Organics	Metals	Site Invest?	Area	# Samples	Individual Costs Analyses	Site Invest.	Excavation	PM/CM	Misc.	P & C	Adders	Total Cost
100-DR-1	132-D-3	1608-D Waste Water / Effluent Pumping Station	20	20	32	Y	Y	Y		Y	400	11	15400	1500	52800	12396	1194	6702	38831	$128,823
100-DR-1	1607-D4	Septic Tank and Drain Field for 115 D/DR Bldg.	19.6	19.6	10	Y	Y	Y	Y	Y	384	8	13600	1500	12000	8801	469	6702	18585	$61,657
100-DR-1	1607-D5	Septic Tank and Drain Field for 181 D pumphouse	19.6	19.6	10	Y	Y	Y	Y	Y	384	8	13600	1500	12000	8801	469	6702	18585	$61,657
100-DR-1	628-3	Burn Pit				N		Y	Y	Y	unknown	24	21600	10000	36000	13115	980	6702	38143	$126,540
100-DR-1	UPR-100-D-1	Oil Soaked Soil	2	2		Y		Y		N	4	8	4800	0	12000	8801	469	6702	14141	$46,912
100-DR-2	100-D-13	124-DR-3; 1607-DR3 Septic Tank and drain field	87	60	10	Y	Y				5,220	8	6400	0	12000	8801	469	6702	14831	$49,203
100-DR-2	100-D-15	Solid Waste Burial Site/ Borrow Pit				N	N	Y	Y	Y	unknown	24	21600	10000	36000	13115	980	6702	38143	$126,540
100-DR-2	100-D-23	119-DR Building French Drain				Y	Y	Y	Y	Y	unknown	8	13600	10000	12000	8801	469	6702	22253	$73,824
100-DR-2	100-D-27	151-D Substation Transformer Leak	30	30	15	N	N	Y	N	N	900	10	6000	0	15000	8801	479	6702	15958	$52,940
100-DR-2	100-D-28	Septic System for the 190-DR Building.	46	36	10	Y	Y			Y	1,656	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-DR-2	116-DR-10	105-DR Fuel Storage Basin Cleanout Percolation Pond	80	50		Y	Y			N	4,000	8	6400	0	12000	8801	469	6702	14831	$49,203
100-DR-2	116-DR-8	117-DR Seal Pit Crib	10	10	17	Y	Y			N	100	11	8800	0	28050	12396	1194	6702	24656	$81,798
100-DR-2	128-D-1	100 D/DR Burning Pit	100	100	10	N	Y	Y	Y	N	10,000	11	18700	0	16500	13115	910	6702	24132	$80,059
100-DR-2	132-DR-1	1608-DR Waste Water / Effluent Pumping Station	36	34	28	Y	Y	Y	Y	N	1,224	11	18700	0	46200	12396	1194	6702	36760	$121,951
100-DR-2	600-30	100-DR Construction Lay-down Area	700	600	5	N	N	Y	N	Y	420,000	24	14400	22500	36000	13115	980	6702	40430	$134,127
100-FR-1	100-F-4	108-F Building 12-inch French Drain	1	1		Y	Y		Y	N	1	8	8800	0	12000	8801	469	6702	15867	$52,638
100-FR-1	100-F-7	Underground Fuel Tank	50	50	15	N	N	Y	N	Y	2,500	10	6000	1500	15000	8801	479	6702	16605	$55,087
100-FR-1	100-F-9	First French Drain at East End of 105-F Storage Room	3	3		Y	Y		Y	N	9	8	8800	0	12000	8801	469	6702	15867	$52,638
100-FR-1	100-F-10	Second French Drain at East End of 105-F Storage Room	3	3		Y	Y		Y	N	9	8	8800	0	12000	8801	469	6702	15867	$52,638
100-FR-1	100-F-11	108-F Building 18 inch French Drain	1.5	1.5		Y	Y		Y	N	2	8	8800	0	12000	8801	469	6702	15867	$52,638
100-FR-1	100-F-12	36 inch French Drain at 105-F Building	3	3		Y	Y		Y	N	9	8	8800	0	12000	8801	469	6702	15867	$52,638
100-FR-1	100-F-16	108-F Building 30-inch French Drain, Undocumented	2.5	2.5		Y	Y		Y	N	6	8	8800	0	12000	8801	469	6702	15867	$52,638
100-FR-1	100-F-18	Former underground condensate tank at 105-F Bldg	3	3		N	Y	Y	Y	N	9	10	17000	0	15000	8801	479	6702	20704	$68,686
100-FR-1	100-F-23	141-F Drywell				Y	Y			Y	unknown	8	6400	10000	12000	8801	469	6702	19146	$63,518
100-FR-1	100-F-24	145-F Drywell/French Drain				Y	Y	Y	Y	Y	unknown	8	13600	10000	12000	8801	469	6702	22253	$73,824
100-FR-1	100-F-25	146-F Drywell/French Drain	5	5		Y	Y	Y	Y	Y	25	8	13600	1500	12000	8801	469	6702	18585	$61,657
100-FR-1	100-F-29	100-F Experimental Animal Farm process sewer pipelines				N	Y			Y	unknown	24	19200	10000	36000	13115	980	6702	37107	$123,105
100-FR-1	100-F-31	144-F Sanitary Sewer System	40	40	10	Y	Y		Y	Y	1,600	8	8800	1500	12000	8801	469	6702	16514	$54,785
100-FR-1	100-F-33	1705-F Fish Farm				Y	Y			N	unknown	8	6400	0	12000	8801	469	6702	14831	$49,203
100-FR-1	100-F-34	Biology Facility French Drain	3	3	2	Y	Y	Y	Y	Y	9	8	13600	1500	12000	8801	469	6702	18585	$61,657
100-FR-1	116-F-7	117-F French Drain	20	20	10	Y	Y		Y	N	400	8	8800	0	12000	8801	469	6702	15867	$52,638
100-FR-1	116-F-12	148-F French Drain	3	3	6	Y			Y	N	9	8	2400	0	12000	8801	469	6702	13105	$43,477
100-FR-1	126-F-2	183-F Clearwells; Demolition/Inert Landfill	751	135	15	N	Y	N	N	Y	101,385	24	19200	6569	36000	13115	980	6702	35627	$118,194
100-FR-1	128-F-2	100-F Burning Pit	150	60	10	N		Y		N	9,000	10	6000	0	15000	8801	479	6702	15958	$52,940
100-FR-1	132-F-1	Chronic Feeding Barn Site	70	70		N	Y			Y	4,900	10	8000	1500	15000	8801	479	6702	17468	$57,950
100-FR-1	132-F-3	115-F Gas Recirculating Facility Site	175	100	13	N	Y			Y	17,500	12	9600	2375	18000	13115	916	6702	21880	$72,588
100-FR-1	132-F-4	116-F Reactor Stack Demolition Site	200	20	3	N	Y			Y	4,000	10	8000	1500	15000	8801	479	6702	17468	$57,950
100-FR-1	132-F-5	117-F Filter Building Site	60	40	27	N	Y			Y	2,400	10	8000	1500	40500	11677	1047	6702	29937	$99,362
100-FR-1	132-F-6	1608-F Waste Water Pumping Station Site	50	50	34	Y	Y		Y	Y	2,500	11	12100	1500	56100	12396	1194	6702	38831	$128,823

Table NB-3. Parameters and Results for Confirmation Sampling Cost Estimates. (Page 3 of 5)

Operable Unit	Number of Waste Site	Name of Waste Site	Dimensions (ft) Length	Width	Depth	Liquid Waste?	Rad	COPCs Organics	Metals	Site Invest?	Area	# Samples	Individual Costs Analyses	Site Invest.	Excavation	PM/CM	Misc.	P & C	Adders	Total Cost
100-FR-1	141-C	Large Animal Barn & Biology Laboratory	68	68		N	Y			N	4,624	10	8000	0	15000	8801	479	6702	16821	$55,803
100-FR-1	1607-F3 (124-F-3)	Septic tank and drain field for 182-F, 183-F, and 151-F	60	50	10	Y	Y	Y	Y	Y	3,000	8	13600	1500	12000	8801	469	6702	18585	$61,657
100-FR-1	1607-F4 (124-F-4)	Septic tank and drain field for 115-F Gas Recirculation Bldg.	24	20	10	Y	Y	Y	Y	Y	480	8	13600	1500	12000	8801	469	6702	18585	$61,657
100-FR-1	1607-F5 (124-F-5)	Septic tank and drain field for 181-F pumphouse.	24	20	10	Y	Y	Y	Y	Y	480	8	13600	1500	12000	8801	469	6702	18585	$61,657
100-FR-1	1607-F7 (124-F-7)	Septic tank and drain field for 141-M Building.	60	43	10	Y	Y	Y	Y	Y	2,580	8	13600	1500	12000	8801	469	6702	18585	$61,657
100-FR-1	182-F	182-F Reservoir	560	309	15	N	Y	N	N	Y	173,040	24	19200	10152	36000	13115	980	6702	37173	$123,322
100-FR-1	UPR-100-F-1	Unplanned Release; Process Sewer Line Leak	40	40		Y	Y			N	1,600	8	6400	0	12000	8801	469	6702	14831	$49,203
100-FR-1	UPR-100-F-3	Mercury Spill at 146-F Fish Lab	10	10		N			Y	N	100	10	3000	0	15000	8801	479	6702	14663	$48,645
100-FR-2	100-F-14	Vent pipe (Carpenter shop waste site vent)				N		Y	Y	N	unknown	24	21600	0	36000	13115	980	6702	33828	$112,225
100-FR-2	100-F-28	Septic tank and drain field for undocumented building.	60	60	10	Y	Y			Y	3,600	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-FR-2	118-F-4	Silica Gel Burial Ground; 115-F Pit	10	10	15	N	Y	Y	Y	N	100	10	17000	0	15000	8801	479	6702	20704	$68,686
100-FR-2	128-F-1	Burning Pit	100	100	10	N		Y	Y	N	10,000	11	9900	0	16500	13115	910	6702	20335	$67,462
100-FR-2	128-F-3	PNL Burning Pit	100	100		N	Y	Y	Y	N	10,000	11	18700	0	16500	13115	910	6702	24132	$80,059
100-FR-2	1607-F1 (124-F-1)	Septic tank and drain field for badge house, fire station, office, and change room.	45	31	10	Y	Y			Y	1,395	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-HR-1	100-H-10	French Drain D	4	4		Y	Y			Y	16	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-HR-1	100-H-3	1716-H Garage Fuel Tank Site	50	50	15	N	N	Y	N	Y	2,500	10	6000	1500	15000	8801	479	6702	16605	$55,087
100-HR-1	100-H-4	1717-H Hot Shop French Drain and Contaminated Storage Unit				Y	Y	Y		Y	unknown	8	11200	10000	12000	8801	469	6702	21217	$70,389
100-HR-1	100-H-7	French Drain A	3	3		Y	Y			Y	9	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-HR-1	100-H-8	French Drain B	3	3		Y	Y			Y	9	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-HR-1	100-H-9	French Drain C	2	2		Y	Y			Y	4	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-HR-1	126-H-2	183-H Clearwells/Disposal Pit	751	135	18	N	Y	Y	Y	N	101,385	24	40800	0	64800	21743	3108	6702	59180	$196,333
100-HR-1	132-H-1	116-H Reactor Exhaust Stack Burial Site	220	25	10	N	Y			Y	5,500	10	8000	1500	15000	8801	479	6702	17468	$57,950
100-HR-1	132-H-3	1608-H Waste Water Pumping Station Site	36	34	32	N	Y		Y	Y	1,224	10	11000	1500	48000	11677	1047	6702	34487	$114,413
100-HR-2	128-H-1	Burning Pit	300	300	10	N		Y		N	90,000	24	14400	0	36000	13115	980	6702	30721	$101,919
100-HR-2	128-H-2	Burning Pit	170	135		N		Y		N	22,950	13	7800	0	19500	13115	921	6702	20728	$68,766
100-HR-2	128-H-3	100-H Burning Ground #3	180	70	15	N	N	Y	N	Y	12,600	11	6600	2130	16500	13115	910	6702	19830	$65,787
100-HR-2	132-H-2	117-H Filter Building Site	60	40	32	N	Y			Y	2,400	10	8000	1500	48000	11677	1047	6702	33193	$110,118
100-HR-2	1607-H1	Septic Tank and Drain Field, 124-H-1	70	50	10	Y	Y			Y	3,500	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-HR-2	600-151	Dumping Area (pre-Hanford); scattered debris and disturbed vegetation.	800	600	0.5	N	N	Y	N	Y	480,000	24	14400	25500	36000	13115	980	6702	41724	$138,422
100-IU-2	600-5	Waste Oil Dump; Asphalt Heliport	25	15	10	N		Y		N	375	10	6000	0	15000	8801	479	6702	15958	$52,940
100-IU-2	600-52	White Bluffs Surface Basin	280	130		Y			Y	N	36,400	20	6000	0	30000	13115	959	6702	24498	$81,274
100-IU-2	600-98	East White Bluffs City Landfill (EWBCL)	320	200	10	N	N	Y	N	Y	64,000	20	12000	4700	30000	13115	959	6702	29115	$96,591
100-IU-2	600-99	J. A. Jones #2	30	30		N		Y		Y	900	10	6000	1500	15000	8801	479	6702	16605	$55,087
100-IU-2	600-100	White Bluffs Landfill (alias 600-119)	125	50	10	N	N	Y	N	Y	6,250	10	6000	1500	15000	8801	479	6702	16605	$55,087
100-IU-2	600-120	Spare Parts Burn Pit				N		Y	Y		unknown	24	21600	0	36000	13115	980	6702	33828	$112,225
100-IU-2	600-124	Burn Site and Paint Disposal Area				N		Y	Y	Y	unknown	24	21600	10000	36000	13115	980	6702	38143	$126,540
100-IU-2	600-125	Waste Disposal Trench 1	100	25	10	N	N	Y	N	Y	2,500	10	6000	1500	15000	8801	479	6702	16605	$55,087
100-IU-2	600-127	Fuel Storage Area	182	116		N		Y		N	21,112	13	7800	0	19500	13115	921	6702	20728	$68,766
100-IU-2	600-128	Oil and Oil Filter Dump Site	7	7		N		Y		N	49	10	6000	0	15000	8801	479	6702	15958	$52,940

Table NB-3. Parameters and Results for Confirmation Sampling Cost Estimates. (Page 4 of 5)

Operable Unit	Number of Waste Site	Name of Waste Site	Dimensions (ft) Length	Width	Depth	Liquid Waste?	Rad	COPCs Organics	Metals	Site Invest?	Area	# Samples	Individual Costs Analyses	Site Invest.	Excavation	PM/CM	Misc.	P & C	Adders	Total Cost
100-IU-2	600-129	White Bluffs Community Dump Site (Pre-Hanford)	660	500	10	N	N	Y	N	Y	330,000	24	14400	18000	36000	13115	980	6702	38488	$127,685
100-IU-2	600-131	Special Fabrication Shop and Warehouse				N		Y		Y	unknown	24	14400	10000	36000	13115	980	6702	35036	$116,233
100-IU-2	600-132	Construction Contractor Shop Landfill	545	370		N	Y	Y		Y	201,650	24	33600	11583	36000	13115	980	6702	44003	$145,983
100-IU-2	600-139	Automotive Repair Shop	100	65		N		Y		Y	6,500	10	6000	1500	15000	8801	479	6702	16605	$55,087
100-IU-2	600-176	White Bluffs Paint Disposal Area				N		Y		Y	unknown	24	14400	10000	36000	13115	980	6702	35036	$116,233
100-IU-2	600-181	White Bluffs Oil Dump	56	50		N		Y		N	2,800	10	6000	0	15000	8801	479	6702	15958	$52,940
100-IU-2	600-188	White Bluffs Waste Disposal Trench 2	300	132		N		Y	Y	N	39,600	16	14400	0	24000	13115	937	6702	25525	$84,679
100-IU-2	600-190	White Bluffs Warehouse Tar / Paint Disposal Area				N		Y		Y	unknown	24	14400	10000	36000	13115	980	6702	35036	$116,233
100-IU-2	600-201	White Bluffs Paint and Solid Waste Disposal Site				N		Y		Y	unknown	24	14400	10000	36000	13115	980	6702	35036	$116,233
100-IU-2	628-1	White Bluffs Burn Pit	100	100		N		Y		N	10,000	11	6600	0	16500	13115	910	6702	18911	$62,738
100-IU-6	600-3	Hanford Townsite Dumping Area and Paint Pit	1600	925		N		Y	Y	Y	1,480,000	24	21600	75500	36000	13115	980	6702	66405	$220,303
100-IU-6	600-107	Cribs at 213-J&K Gable Mtn. Plutonium Storage Vaults	16	8	15	Y	Y			Y	128	8	6400	1500	12000	8801	469	6702	15478	$51,350
100-IU-6	600-108	213-J & K Gable Mountain Plutonium Storage Vaults	20	12	8	N	Y			N	240	10	8000	0	15000	8801	479	6702	16821	$55,803
100-IU-6	600-109	Hanford Trailer Camp Landfill (HTCL)	100	100	8	N	N	Y	N	Y	10,000	11	6600	2000	16500	13115	910	6702	19774	$65,601
100-IU-6	600-110	Hanford Townsite Landfill (HTL)	200	200	10	N	N	Y	N	Y	40,000	16	9600	3500	24000	13115	937	6702	24964	$82,818
100-IU-6	600-111	P-11 Critical Mass Laboratory	8	8		N	Y			Y	64	10	8000	1500	15000	8801	479	6702	17468	$57,950
100-IU-6	600-202	Four Burn and Burial Pits at Hanford Townsite	500	250	20	N		Y		Y	125,000	24	14400	7750	72000	21743	3108	6702	54240	$179,942
100-IU-6	600-204	Hanford Townsite Burn and Burial Trench	46	3	2	N		Y		Y	138	10	6000	1500	15000	8801	479	6702	16605	$55,087
100-IU-6	600-205	Hanford Townsite Landfill 2	200	100	5	N	N	Y	N	Y	20,000	12	7200	2500	18000	13115	916	6702	20898	$69,331
100-IU-6	600-208	Hanford Construction Camp Boiler House Ponds	60	20	5	Y			Y	N	1,200	8	2400	0	12000	8801	469	6702	13105	$43,477
100-IU-6	UPR-600-16	Fire and contamination spread; UN-600-16	180	100		N	Y			N	18,000	12	9600	0	18000	13115	916	6702	20855	$69,188
100-KR-2	100-K-13	French Drain west of 166-KW oil storage tank	5	5	15	Y	Y	Y		N	25	8	11200	0	12000	8801	469	6702	16902	$56,074
100-KR-2	100-K-29	183-KE Sandblasting Site	150	90	5	N	N	Y	Y	N	13,500	12	10800	0	18000	13115	916	6702	21373	$70,906
100-KR-2	100-K-30	183-KE Sulfuric Acid Tank Site (West)	33	12		N		Y	Y	Y	396	10	9000	1500	15000	8801	479	6702	17899	$59,382
100-KR-2	100-K-31	183-KE Sulfuric Acid Tank Site (East)	33	12		N		Y	Y	Y	396	10	9000	1500	15000	8801	479	6702	17899	$59,382
100-KR-2	100-K-32	183-KW Sulfuric Acid Tank Site (East)	33	12		N		Y	Y	Y	396	10	9000	1500	15000	8801	479	6702	17899	$59,382
100-KR-2	100-K-33	183-KW Sulfuric Acid Tank Site (West)	33	12		N		Y	Y	Y	396	10	9000	1500	15000	8801	479	6702	17899	$59,382
100-KR-2	100-K-35	183-KE Acid Neutralization Pit	10	6	5	N	N	N	Y	Y	60	10	3000	1500	15000	8801	479	6702	15310	$50,793
100-KR-2	100-K-36	1706-KE Chemical Storage Facility Dry Well	2	2	7	Y	N	Y	Y	Y	4	8	7200	1500	12000	8801	469	6702	15823	$52,495
100-KR-2	100-K-46	119-KE French Drain	2	2	10	Y	Y	Y	Y	Y	4	8	13600	1500	12000	8801	469	6702	18585	$61,657
100-KR-2	100-K-48	100-KE Oil Contamination Areas				N		Y		N	unknown	24	14400	0	36000	13115	980	6702	30721	$101,919
100-KR-2	100-K-49	100-KW Oil Contamination Areas				N		Y		N	unknown	24	14400	0	36000	13115	980	6702	30721	$101,919
100-KR-2	120-KE-3	183-KE Filter Water Facility Trench for sulfuric acid sludge.	40	3	3	Y			Y	N	120	8	2400	0	12000	8801	469	6702	13105	$43,477
100-KR-2	120-KE-6	183-KE Former Sodium Dichromate Tank Site	20	20		N			Y	Y	400	10	3000	1500	15000	8801	479	6702	15310	$50,793

Table NB-3. Parameters and Results for Confirmation Sampling Cost Estimates. (Page 5 of 5)

Operable Unit	Number of Waste Site	Name of Waste Site	Dimensions (ft) Length	Width	Depth	Liquid Waste?	Rad	COPCs Organics	Metals	Site Invest?	Area	# Samples	Individual Costs Analyses	Site Invest.	Excavation	PM/CM	Misc.	P & C	Adders	Total Cost
100-KR-2	120-KW-5	183-KW Former Sodium Dichromate Storage Tank Site	20	20		N			Y	Y	400	10	3000	1500	15000	8801	479	6702	15310	$50,793
100-KR-2	128-K-1	100-K Burning Pit	100	100	8	N	N	Y	N	Y	10,000	11	6600	2000	16500	13115	910	6702	19774	$65,601
100-KR-2	128-K-2	100-K Construction Dump & Burning Pit	800	280	5	N	N	Y	N	Y	224,000	24	14400	12700	36000	13115	980	6702	36201	$120,098
100-KR-2	130-K-2	Former location of 1717-K Waste Oil Storage Tank				N		Y		Y	unknown	24	14400	10000	36000	13115	980	6702	35036	$116,233
100-KR-2	130-KE-1	Former location of 105-KE Emergency Diesel Oil Storage Tank	20	20		N	Y	Y		Y	400	10	14000	1500	15000	8801	479	6702	20057	$66,539
100-KR-2	130-KW-1	Former location of 105-KW Emergency Diesel Oil Storage Tank	20	20		N	Y	Y		Y	400	10	14000	1500	15000	8801	479	6702	20057	$66,539
100-KR-2	600-29	100-K Construction Laydown Area; Surface Chemical Dumping Site	2000	1000		N	N	Y	Y	Y	2,000,000	24	21600	101500	36000	13115	980	6702	77624	$257,522
100-KR-2	UPR-100-K-1	105-KE Fuel Storage Basin Leak	150	100	15	Y	Y	N	Y	N	15,000	12	13200	0	18000	13115	916	6702	22408	$74,341
200-CW-3	216-N-1	Cooling Water Pond	500	100	6	Y	Y			N	50,000	8	6400	0	12000	8801	469	6702	14831	$49,203
200-CW-3	216-N-2	Cooling Water Trench	50	10	7	Y	Y			N	500	8	6400	0	12000	8801	469	6702	14831	$49,203
200-CW-3	216-N-3	Cooling Water Trench	50	20	6	Y	Y			N	1,000	8	6400	0	12000	8801	469	6702	14831	$49,203
200-CW-3	216-N-4	Cooling Water Pond	500	200	6	Y	Y			N	100,000	16	12800	0	24000	13115	937	6702	24834	$82,388
200-CW-3	216-N-5	Cooling Water Trench	80	15	6	Y	Y			N	1,200	8	6400	0	12000	8801	469	6702	14831	$49,203
200-CW-3	216-N-6	Cooling Water Pond	500	150	6	Y	Y			N	75,000	12	9600	0	18000	13115	916	6702	20855	$69,188
200-CW-3	216-N-7	Cooling Water Trench	80	15	6	Y	Y			N	1,200	8	6400	0	12000	8801	469	6702	14831	$49,203
																			SUM	$12,288,024
																			Cost/site	$76,323
Costs per OU																				
100-BC-1	13	$1,013,424																		
100-BC-2	12	$793,427																		
100-DR-1	14	$1,113,970																		
100-DR-2	10	$820,996																		
100-FR-1	32	$2,134,892																		
100-FR-2	6	$431,133																		
100-HR-1	9	$699,571																		
100-HR-2	6	$536,362																		
100-IU-2	20	$1,750,586																		
100-IU-6	11	$950,850																		
100-KR-2	21	$1,645,224																		
200-CW-3	7	$397,589																		

Table NB-4. Confirmation Sampling Estimate.

PM/CM	Hours/Day	Hourly $	$/Sample
Planning and Controls	2	56.04	
Design Engineering	1	65.03	
Procurement	1	47.74	
Project Management		74.98	
Environmental Compliance	0.5	63.43	
Field Support	9	50.32	
Environmental Engineering (samplers)	16	56.06	
Sample Management	2	49.96	
Heath and Safety	4	56.44	
Total PM/CM per day		2,157.03	
Administrative Services (6 hrs/project)	6	28.81	
Miscellaneous			
HPTs plus tools, per hour		56.35	
Materials, per sample			5.40
Planning and Closeout			
Planing, permits, total hours[a]	20	67.02	
Closeout report, total hours[a]	80	67.02	

[a]Based on 80% Design Engineering, 20% Project Management.

Assumptions: 4 days/project for PM/CM if # 10 samples
6 days/project for PM/CM if >10 samples

If size is unknown:
For liquid waste sites, <10,000 ft^2 used
For non-liquid waste sites, >84,400 ft^2 used

2 HPTs for 8 hours for up to 10 samples, 16 hours for >10 samples.

Table NB-5. Sampling Scheme for Liquid Waste Sites (DOE-RL 1996).

Decision Unit	Size (ft^2)	No. of decision units	No. of samples/decision unit		
			Overburden	Shallow	Deep
Small	< 10,000	Entire site	4	4	3
Medium	10,000-40,000	1 per 10,000	4	4	3
Large	> 40,000	1 per 40,000	4	4	3

ATTACHMENT NC

TABLES LISTING ALL REMAINING SITES

CONTENTS

TABLES

NC-1. Remaining Sites Listed by Operable Unit NC-1
NC-2. Remaining Sites Listed by Waste Site Category NC-17

ACRONYMS

CERCLA	*Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
CPP	CERCLA Past Practice
CS	confirmation sampling (site)
D&D	decontamination and decommissioning
EAF	Experimental Animal Farm
RCRA	*Resource Conservation and Recovery Act of 1976*
RL	U.S. Department of Energy, Richland Operations Office
RPP	RCRA Past Practice
RTD	remove/treat/dispose (site)

ATTACHMENT NC
TABLES LISTING ALL REMAINING SITES

Table NC-1. Remaining Sites Listed by Operable Unit. (16 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-BC-1	100-B-2	181-B Backwash Trench. Facility in use	Accepted	N	Regulated under other authorities[1]	Under authority of Site Infrastructure Division, EM-70.
	100-B-3	Former Hot Thimble Burial Ground	Accepted	Y	New CPP/RPP Site: CS[5]	Thimble removed; site may contain radioactive debris.
	100-B-4	Pre-Hanford Building Foundation	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 9/9/97.
	100-B-5	Effluent Vent Disposal Trench	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-B-10	Leak from 116-B-11 (107-B) Retention Basin	Accepted	Y	New CPP/RPP Site: CS[5]	Springs observed along the Columbia River in 1949.
	116-B-15	105-B Fuel Storage Basin Cleanout Percolation Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Received cleaned water from 105-B Fuel Storage Basin cleanout.
	116-B-7	116-B-7, Outfall Structure	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure.
	118-B-5	Ball 3X Burial Ground	Accepted	Y	Burial ground[3]	Burial Grounds Task Team.
	118-B-7	111-B Solid Waste Burial Site	Accepted	Y	Burial ground[3]	Burial Grounds Task Team.
	118-B-8	105-B Reactor Building	Accepted	N	Facility for D&D[4]	Proposed museum site.
	118-B-9	104-B2 Storage Building	Accepted	N	Facility for D&D[4]	Aboveground facility, intact building.
	118-B-10	115-B/C Caisson Site	Accepted	Y	Burial ground[3]	Burial Grounds Task Team.
	120-B-1	105-B Battery Acid Sump	Accepted	Y	New CPP/RPP Site: CS[5]	Sump was cleaned in 1986 and not reused.
	126-B-1	184-B Power House Ash Pit	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 6/25/98.
	126-B-2	183-B Clearwells. Intact facility. Contains no waste	Accepted	N	Facility for D&D[4]	Intact facility; contains no waste.
	126-B-3	184-B Coal Pit. Contains demolition debri.	Accepted	Y	New CPP/RPP Site: CS[5]	Solid waste site; inert landfill.
	126-B-4	B Area Brine and Salt Dilution Pits	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 9/9/97.
	128-B-1	Suspected Burn Pit. Site is coincident with 116-C-1	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 9/9/97.
	128-B-2	100-B Burn Pit #2	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	128-B-3	Coal Ash and Demolition Waste Site; Dump & Burning Pit Site	Accepted	Y	New CPP/RPP Site: RTD[5]	No data; evidence of stressed vegetation
	132-B-1	108-B Tritium Separation Facility	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-B-2	116-B Reactor Exhaust Stack	Accepted	N	Facility for D&D[4]	Aboveground facility; intact reactor exhaust stack.
	132-B-3	108-B Ventilation Exhaust Stack Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-B-4	117-B Filter Building	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-B-5	115-B/C Gas Recirculation Facility	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-B-6	1904-B2 Outfall Structure Site, 116-B-8	Accepted	Y	New CPP/RPP Site: RTD[5]	Former structure; demolished in place.
	132-C-2	1904-C Outfall, 116-C-4	Accepted	Y	New CPP/RPP Site: RTD[5]	Former structure; demolished in place.
	600-34	100-B Baled Tumbleweed Disposal Site	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 9/9/97.

Table NC-1. Remaining Sites Listed by Operable Unit. (16 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-BC-1 (cont.)	600-56	Pre-Hanford Farm Site	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 9/9/97.
	600-67	Bruggemann's Fruit Storage Warehouse	Rejected	N	Regulated under other Authorities[1]	Underground Storage Tank for diesel fuel.
	1607-B1 (124-B-1)	Septic Tank System for Patrol Change Room and Fire Station	Accepted	N	Regulated under other Authorities[1]	Septic system; Close under WAC 247-272-18501.
	1607-B2 (124-B-2)	Septic Tank System for 105-B Reactor and offices	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-B3 (124-B-3)	Septic Tank System for 184-B pumphouse	Accepted	N	Regulated under other authorities[1]	Pumped dry and demolished in 1987.
	1607-B4 (124-B-6)	Septic Tank System for 151-B electrical distribution facility	Accepted	N	Regulated under other authorities[1]	Under authority of Site Infrastructure Division, EM-70.
	1607-B5 (124-B-4)	Septic Tank System for 181-BC river pumphouse. Active facility	Accepted	N	Regulated under other authorities[1]	Under authority of Site Infrastructure Division, EM-70.
	1607-B6 (124-B-5)	Septic Tank System for 182-B pump station and headhouse	Accepted	N	Regulated under other authorities[1]	Under authority of Site Infrastructure Division, EM-70.
	1607-B7 (124-C-1)	Septic Tank System for 183-B water treatment plant	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
TOTAL 100-BC-1 OPERABLE UNIT REMAINING SITES: 37						
100-BC-2	100-B-1	Surface Chemical and Solid Waste Dumping Area, Laydown Yard	Accepted	Y	New CPP/RPP Site: CS[5]	Site contains debris and distressed vegetation.
	100-C-2	Possible Building Foundation and Parking Lot	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 9/9/97.
	100-C-3	119-C Sample Building French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water and discharge from floor drain.
	100-C-4	Valve pit for water pipeline	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 9/9/97.
	100-C-7	183-C Filter Building/Pumproom Facility	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	116-C-3	105-C Chemical Waste Tanks (unused)	Accepted	Y	New CPP/RPP Site: CS[5]	Unused tanks containing water.
	116-C-6	105-C Fuel Storage Basin Cleanout Percolation Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Received cleaned water from 105-C Fuel Storage Basin cleanout.
	118-B-1	105-B Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-B-2	Construction Burial Ground No. 1	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-B-3	Construction Burial Ground No. 2	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-B-4	105-B Spacer Burial Ground; 105-B Dummy Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-B-6	108-B Solid Waste Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-C-1	105-C Burial Ground; 105-C Solid Waste Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-C-2	105-C Ball 3X Storage Tank	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-C-3	105-C Reactor Building	Accepted	N	Facility for D&D[4]	Being demolished to put reactor in interim safe storage.
	118-C-4	105-C Horizontal Control Rod Storage Cave	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	124-C-4	Number incorrectly assigned for a septic system that does not exist	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 9/9/97.
	128-C-1	100-C Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	132-C-1	116-C Reactor Stack Burial Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-C-3	117-C Filter Building Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.

Table NC-1. Remaining Sites Listed by Operable Unit. (16 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-BC-2 (cont.)	600-33	105-C Reactor Test Loop Burial Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	1607-B8	Septic Tank and Drain Field for 190-C pumphouse	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-B9	Septic Tank and Drain Field for 105-C Reactor Building	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-B10	Septic Tank and Drain Field for 183-C water treatment plant	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-B11	Septic Tank and Drain Field for 183-C water filter pumphouse	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
TOTAL 100-BC-2 OPERABLE UNIT REMAINING SITES: 25						
100-DR-1	100-D-1	Contaminated Storm Drain	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated by retention basin leakage.
	100-D-2	Lead Sheeting (formerly 100-D-39)	Accepted	Y	New CPP/RPP Site: RTD[5]	Removal of lead may clear site.
	100-D-3	Solid Waste Burial Site; Silica Gel	Accepted	Y	New CPP/RPP Site: RTD[5]	Possible site of 100-D Pluto Crib.
	100-D-5	Undocumented waste site near 103-D	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-6 (100-D-42)	Burial Ground 4D (118-D-4D); Buried VSR Thimble Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-7	Solid Waste Dump	Accepted	N	New CPP/RPP Site: CS[5]	Site contains miscellaneous surface debris.
	100-D-8	105-DR Process Sewer Outfall Site; 1907-DR	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	100-D-9	Former location of 184-DA boiler house fuel oil tanks.	Accepted	N	Regulated under other authorities[1]	Tanks removed during D&D of 184-DA boiler house.
	100-D-10	Storm Drain Outfall; demolished and removed	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-19	Sludge Trench #6 Near 107-DR Retention Basin	Accepted	Y	New CPP/RPP Site: RTD[5]	Received sludge from cleanout of retention basins.
	100-D-24	119D Sample Building French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Indicated on Site dwg U-1-19810.
	100-D-26	Borrow Pit; Potential Burial Trenches	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-30	190-D Sodium Dichromate Soil Contamination	Accepted	Y	New CPP/RPP Site: CS[5]	Not known to be contaminated with Chromium VI.
	100-D-31	100-D Process Sewer System	Accepted	Y	New CPP/RPP Site: RTD[5]	Piping potentially contaminated.
	100-D-32	Minor Construction Burial Ground #6	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-33	Minor Construction Burial Ground #4	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-34	100-D/DR Exclusion Area	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-35	Minor Construction Burial Ground #1	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-38	Suspect Septic Tank; actually a junction box and manhole.	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-41	Minor Construction Burial Ground #5; Burial Ground 18; 118-D-18.	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-45	Burial Ground 4B (118-D-4B); Buried VSR Thimble Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	116-D-5	1904-D Outfall Structure	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure.
	116-D-10	105-D Fuel Storage Basin Cleanout Percolation Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Received cleaned water from 105-D Fuel Storage Basin cleanout.

Table NC-1. Remaining Sites Listed by Operable Unit. (16 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-DR-1 (cont.)	116-DR-5	1904-DR Outfall Structure	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure (filled with soil).
	118-D-6	105-D Reactor Building	Accepted	N	Facility for D&D[4]	May be demolished to put reactor in interim safe storage.
	120-D-1	100-D Ponds	Accepted	N	RCRA TSD Unit	RCRA Permit Mod.
	120-D-2	186-D Waste Acid Reservoir; demolished in place	Accepted	Y	New CPP/RPP Site: RTD[5]	Contains lead lining.
	126-D-1	184-D Powerhouse Ash Pit, 188-D Ash Disposal Area	Rejected	N	Rejected	Reclassified as "Rejected" by Ecology & RL; 6/25/98
	126-D-2	184-D Coal Pit/Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	126-D-3	D Area Brine and Salt Dilution Pits. Cleaned and demolished in place	Rejected	N	Rejected	Reclassified as "Rejected" by Ecology & RL; 8/27/97.
	128-D-2	Burn Pit Site	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	130-D-1	1716-D Gasoline Storage Tank Site	Accepted	Y	New CPP/RPP Site: CS[5]	Contaminated soil left in place when tank was removed.
	132-D-1	115-D/DR Gas Recirculating Facility	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-D-2	117-D Filter Building	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-D-3	1608-D Waste Water/Effluent Pumping Station	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-D-4	116-D Reactor Exhaust Stack	Accepted	N	Facility for D&D[4]	Aboveground facility; intact reactor exhaust stack.
	628-3	Burn Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	1607-D4	Septic Tank and Drain Field for 115-D/DR Gas Recirculation Bldg.	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-D5	Septic Tank and Drain Field for 181-D pumphouse	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	UPR-100-D-1	Oil Soaked Soil	Accepted	N	New CPP/RPP Site: CS[5]	Evaluate under WAC 173-340-740, Method A for cleanup.
TOTAL 100-DR-1 OPERABLE UNIT REMAINING SITES: 40						
100-DR-2	100-D-11	Former site of Temporary Garage and Gasoline Dispensing Station	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-12	Sodium Dichromate/Acid Railcar and Truck Unloading Station	Accepted	Y	New CPP/RPP Site: RTD[5]	Soil sampling confirmed presence of chromates.
	100-D-13	Septic Tank and drain field for temporary construction facilities	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	100-D-14	Septic Tank for temporary construction badgehouse	Accepted	N	Regulated under other authorities[1]	Septic system; close under WAC 247-272-18501.
	100-D-15	Undocumented Solid Waste Burial Sites/Borrow Pits	Accepted	Y	New CPP/RPP Site: CS[5]	Solid waste; dump area for Army site wastes, paint and solvent cans.
	100-D-17	Former burn pit for construction debris	Rejected	N	Rejected	Reclassified as "Rejected" by Ecology & RL; 8/27/97.
	100-D-23	119-DR Building French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Found on Site Drawing U-1-19810.
	100-D-27	Spill of transformer oil; cleaned up	Accepted	Y	New CPP/RPP Site: CS[5]	Assays of residual soil not available.
	100-D-28	Septic System for the 190-DR Building	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	100-D-36	1614-D-1, Concrete Pad for Monitoring Station (600 Area)	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-37	1614-D-3 Concrete Pad for Monitoring Station (600 Area)	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-40	Minor Construction Burial Ground #5 pit	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.

Table NC-1. Remaining Sites Listed by Operable Unit. (16 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-DR-2 (cont.)	100-D-43	Burial Ground 4C (118-D-4C); Buried VSR Thimble Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-46	Burial Ground 4A (118-D-4A)	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-47	Construction Burial Ground 4E (118-D-4E)	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-53	117-DR Filter Building	Accepted	N	Facility for D&D[4]	Covered by RCRA Permit Modification.
	116-D-8	100-D Cask Storage Pad	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated with radionuclides.
	116-DR-10	105-DR Fuel Storage Basin Cleanout Percolation Pond	Accepted	Y	New CPP/RPP Site: CS[5]	Received cleaned water from 105-DR Fuel Storage Basin cleanout.
	116-DR-7	Inkwell Crib	Accepted	Y	New CPP/RPP Site: RTD[5]	Crib received potassium borate contaminated with radionuclides.
	116-DR-8	117-DR Seal Pit Crib	Accepted	Y	New CPP/RPP Site: CS[5]	Received water contaminated with radioactive wastes.
	118-D-1	100-D Burial Ground No. 1	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-D-2	100-D Burial Ground No. 2	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-D-3	100-D Burial Ground No. 3	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-D-4	Construction Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team
	118-D-5	Ball 3X Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-DR-1	105-DR Gas Loop Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-DR-2	105-DR Reactor Building	Accepted	N	Facility for D&D[4]	May be demolished to put reactor in interim safe storage.
	122-DR-1	105-DR Large Sodium Fire Facility	Accepted	N	RCRA TSD Unit	Covered by RCRA Permit Modification.
	126-DR-1	190-DR Clearwell Tank Pit	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	128-D-1	100 D/DR Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	132-DR-1	1608-DR Waste Water / Effluent Pumping Station	Accepted	Y	New CPP/RPP Site: CS[5]	Former facility demolished in place.
	132-DR-2	116-DR Reactor Exhaust Stack	Accepted	N	Facility for D&D[4]	Aboveground facility; intact reactor exhaust stack.
	600-30	100-DR Construction Lay-down Area	Accepted	Y	New CPP/RPP Site: CS[5]	Miscellaneous solid waste and areas of distressed vegetation.
	1607-D1 (124-D-1)	Septic Tank and Drain Field for the Badgehouse/Fire Headquarters	Accepted	N	Regulated under other authorities[1]	Septic system; close under WAC 247-272-18501.
	1607-D3	Septic Tank and Drain Field for 151-D Electrical Substation	Accepted	N	Regulated under other authorities[1]	Septic system; close under WAC 247-272-18501.
TOTAL 100-DR-2 OPERABLE UNIT REMAINING SITES: 35						
100-FR-1	100-F-4	108-F Building 12-inch French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Coordinate with D&D of 108-F Building.
	100-F-5	1717-F Building steam condensate drywell	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 7/29/97.
	100-F-6	Temporary construction fuel tanks and pumps (removed)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	100-F-7	Possible underground fuel tank at 1705-F Building	Accepted	Y	New CPP/RPP Site: CS[5]	Possible UST; if found, close under WAC 173-360.
	100-F-8	Steam condensate French drains near 105-F Gate	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 7/29/97.
	100-F-9	First French drain at east end of 105-F Storage Room	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water for disposal.

Table NC-1. Remaining Sites Listed by Operable Unit. (16 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-FR-1 (cont.)	100-F-10	Second French drain at east end of 105-F Storage Room	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water for disposal.
	100-F-11	108-F Building 18-inch French drain	Accepted	Y	New CPP/RPP Site: CS[5]	Coordinate with D&D of 108-F Building.
	100-F-12	36 inch French Drain at 105-F Building	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water for disposal.
	100-F-16	108-F Building 30-inch French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Coordinate with D&D of 108-F Building.
	100-F-17	Chemicals used at 108-F Building; Chemical storage tanks at 108-F	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	100-F-18	Site of former underground condensate tank at 105-F Bldg	Accepted	Y	New CPP/RPP Site: CS[5]	Drain field may remain.
	100-F-21	100-F Exclusion Area	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	100-F-23	141-F Drywell	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-F-24	145-F Drywell/French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-F-25	146-F Drywell/French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-F-29	100-F Experimental Animal Farm process sewer pipelines	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-F-30	144-F Drywell/French Drain	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	100-F-31	144-F Sanitary Sewer System	Accepted	Y	New CPP/RPP Site: CS[5]	May have been removed during D&D of 144-F Bldg.
	100-F-32	1717-F Building Underground Fuel Tanks	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	100-F-33	1705-F Fish Farm	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-F-34	Biology Facility French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	116-F-7	117-F French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water for disposal.
	116-F-8	1904-F Outfall Structure	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure.
	116-F-12	148-F French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water for disposal.
	116-F-13	1705-F Experimental Garden French Drain (not a French drain)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	116-F-15	108-F Radiation Crib	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of 108-F Building.
	116-F-16	PNL Outfall	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure.
	118-F-8	105-F Reactor Building	Accepted	N	Facility for D&D[4]	May be demolished to put reactor in interim safe storage.
	126-F-2	183-F Clearwells; Demolition/Inert Landfill	Accepted	Y	New CPP/RPP Site: CS[5]	Inert landfill for disposal of inert materials from other D&D projects.
	128-F-2	100-F Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	132-F-1	Chronic Feeding Barn Site	Accepted	Y	New CPP/RPP Site: CS[5]	Test pit found no contamination above background.
	132-F-2	144-F, 144-FB Inhalation Laboratory Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	132-F-3	115-F Gas Recirculation Facility Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure; cleaned, and demolished in place.
	132-F-4	116-F Reactor Stack Demolition Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure; cleaned and demolished in place.

Table NC-1. Remaining Sites Listed by Operable Unit. (16 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-FR-1 (cont.)	132-F-5	117-F Filter Building Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure; cleaned and demolished in place.
	132-F-6	1608-F Waste Water Pumping Station Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure; cleaned and demolished in place.
	141-C	Large Animal Barn & Biology Laboratory	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure; cleaned, demolished, and removed.
	182-F	182-F Reservoir	Accepted	Y	New CPP/RPP Site: CS[5]	Inert landfill for disposal of inert materials from other D&D projects.
	1607-F2	Septic tank and drain field for 105-F Reactor Bldg.	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated septic system.
	1607-F3 (124-F-3)	Septic tank and drain field for F-Area facilities	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-F4 (124-F-4)	Septic tank and drain field for 115-F Gas Recirculation Bldg.	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-F5 (124-F-5)	Septic tank and drain field for 181-F pumphouse	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-F6 (124-F-6)	Septic tank and drain field for animal farm buildings	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated septic system.
	1607-F7 (124-F-7)	Septic tank and drain field for 141-M Building	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	UPR-100-F-1	UN-100-F-1 Unplanned Release, Process Sewer Line Leak	Accepted	Y	New CPP/RPP Site: CS[5]	Spill of animal waste from washing of pens.
	UPR-100-F-3	Mercury Spill at 146-F Fish Lab	Accepted	Y	New CPP/RPP Site: CS[5]	Said to have been cleaned up.
TOTAL 100-FR-1 OPERABLE UNIT REMAINING SITES: 47						
100-FR-2	100-F-1	100-FR-2 Depression	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	100-F-2	Strontium Gardens	Accepted	Y	New CPP/RPP Site: RTD[5]	Fenced area for tests of plant uptake of Sr-90 and Cs-137.
	100-F-14	Vent pipe (Carpenter shop waste site vent)	Accepted	Y	New CPP/RPP Site: CS[5]	Soil gas and radiation surveys found no hazardous substances.
	100-F-20	PNL Parallel Pits	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-F-28	Septic tank and drain field for undocumented building.	Accepted	Y	New CPP/RPP Site: CS[5]	Under authority of DOE Site Infrastructure Division, EM-70.
	118-F-1	Burial Ground No. 1	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-2	Burial Ground No. 2	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-3	Burial Ground No. 3	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-4	Silica Gel Burial Ground; 115-F Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Silica gel containing C-12 from 115-F gas recirculation facility.
	118-F-5	PNL Sawdust Pit	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-6	PNL Solid Waste Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-7	100-F Miscellaneous Hardware Storage Vault	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-9	PNL Rad Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	120-F-1	Glass Dump	Accepted	Y	New CPP/RPP Site: RTD[5]	Disposal trench for light bulbs, glass, and electrical components.
	128-F-1	Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	128-F-3	PNL Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.

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Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-FR-2 (cont.)	600-31	100-F Area Bottle Disposal Site	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 7/29/97.
	1607-F1 (124-F-1)	Septic tank and drain field for badge house and change room	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
TOTAL 100-FR-2 OPERABLE UNIT REMAINING SITES: 18						
100-HR-1	100-H-3	Suspect Waste Site: 1716-H Garage Fuel Tank Site	Accepted	Y	New CPP/RPP Site: CS[5]	Possible UST; If found, close under WAC 173-360.
	100-H-4	1717-H Hot Shop French Drain and Contaminated Storage Unit	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place; radionuclide contamination.
	100-H-6	Ramp at the 105-H Reactor Building; formerly contaminated	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-7	French Drain A	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 105-H Reactor Building.
	100-H-8	French Drain B	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 105-H Reactor Building.
	100-H-9	French Drain C	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 105-H Reactor Building.
	100-H-10	French Drain D	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 105-H Reactor Building.
	100-H-11	Expansion Box French Drain E	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of the 105-H Reactor Building.
	100-H-12	French Drain F, expansion box, and shielding lead	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of the 105-H Reactor Building.
	100-H-13	French Drain G	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of the 105-H Reactor Building.
	100-H-14	Surface Contamination Zone H	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of the 105-H Reactor Building.
	100-H-18	Stack Emission No. 1	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-19	Stack Emission No. 2	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-20	Swallow nests and droppings	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-22	Soil Contaminated by Effluent Line Leakage	Accepted	Y	New CPP/RPP Site: RTD[5]	Expected to be removed with Process Effluent Pipelines.
	100-H-24	151-H Electrical Facilities and Laydown Yard	Accepted	Y	New CPP/RPP Site: RTD[5]	Under authority of Site Infrastructure Division, EM-70.
	100-H-26	100-H Exclusion Area	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-31	PCB in soil at north side of 105-H Reactor Bldg.	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of the 105-H Reactor Building.
	116-H-5	1904-H Outfall Structure	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure.
	116-H-6	183-H Solar Evaporation Basins	Accepted	N	RCRA TSD Unit	Covered by RCRA Permit Modification.
	116-H-9	Crib for drainage of 117-H Filter Building seal pits	Accepted	Y	New CPP/RPP Site: RTD[5]	Intact belowground structure; intact. Coordinate with D&D.
	118-H-6	105-H Reactor Building	Accepted	N	Facility for D&D[4]	May be demolished to put reactor in interim safe storage.
	126-H-2	183-H Clearwells/Disposal Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Demolition rubble in a former structure demolished in place.
	132-H-1	116-H Reactor Exhaust Stack Burial Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-H-3	1608-H Waste Water Pumping Station Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	1607-H2 (124-H-2)	Septic Tank and Drain Field for 182-H, 183-H and 190-H Bldgs.	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated septic system.

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Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-HR-1 (cont.)	1607-H3 (124-H-3)	Septic Tank and Drain Field for badgehouse and offices	Accepted	N	Regulated under other authorities[1]	Septic system; close under WAC 247-272-18501.
	1607-H4 (124-H-4)	Septic Tank and Drain Field for 181-H pumphouse	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated septic system.
TOTAL 100-HR-1 OPERABLE UNIT REMAINING SITES: 28						
100-HR-2	100-H-1	105-H Rod Cave	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	100-H-15	Site incorrectly identified as a septic tank and drain field.	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-16	Suspect Waste Site: Power House Brine Pit and French Drain	Accepted	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-27	100-H Area Patrol Headquarters Storm Runoff Ditch	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	118-H-1	100-H Burial Ground No. 1	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-H-2	100-H Burial Ground No. 2; H-1 Test Loop Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-H-3	Construction Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-H-4	Ball 3X Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-H-5	105-H Thimble Pit	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	126-H-1	184-H Powerhouse Ash Pit; 188-H Ash Disposal Area	Rejected	N	Rejected	Reclassified as "Rejected" by Ecology & RL 6/25/98
	128-H-1	Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	128-H-2	Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	128-H-3	100-H Burning Ground #3	Accepted	Y	New CPP/RPP Site: CS[5]	Solid waste site; inert landfill.
	132-H-2	117-H Filter Building Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	600-151	Pre-Hanford Dumping Area	Accepted	Y	New CPP/RPP Site: CS[5]	Site contains scattered debris and disturbed vegetation.
	600-152	Military Septic Tanks	Accepted	N	Regulated under other authorities[1]	Under authority of DOE Site Infrastructure Division, EM-70.
	1607-H1	Septic Tank and Drain Field (alias 124-H-1)	Accepted	Y	New CPP/RPP Site: CS[5]	Potentially contaminated septic system.
TOTAL 100-HR-2 OPERABLE UNIT REMAINING SITES: 17						
100-KR-1	116-K-3	Outfall Structure for discharge of process effluent to the river	Accepted	Y	New CPP/RPP Site: RTD[5]	Under authority of DOE Spent Fuels Division, EM-60.
TOTAL 100-KR-1 OPERABLE UNIT REMAINING SITES: 1						
100-KR-2	100-K-2	Sludge Burial Ground (alias 118-K-2)	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-K-3	1706-KE Fish Pond Valve Pit and Heat Exchanger Pit	Accepted	N	Facility for D&D[4]	Suspected soil contamination beneath an intact facility.
	100-K-4	1706-KE Fish Pond	Accepted	N	Facility for D&D[4]	Suspected soil contamination beneath an intact facility.
	100-K-5	1705-KE French Drain	Accepted	N	Facility for D&D[4]	Suspected soil contamination beneath an intact facility.
	100-K-6	105-KE Vacuum Pit, Cyclone Separator	Accepted	N	Facility for D&D[4]	Contaminated belowground structure; intact.
	100-K-7	165-KE Ethylene Glycol Tanks	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-8	165-KW Ethylene Glycol Tanks	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.

Table NC-1. Remaining Sites Listed by Operable Unit. (16 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-KR-2 (cont.)	100-K-9	118-KE-2 Control Rod Storage Cave French Drain (North)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-10	118-KE-2 Control Rod Storage Cave French Drain (South)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-11	118-KW-2 Control Rod Storage Cave French Drain (North)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-12	118-KW-2 Control Rod Storage Cave French Drain (South)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-13	French Drain west of 166-KW oil storage tank	Accepted	Y	New CPP/RPP Site: CS[5]	Received "grey water" from temporary construction facilities.
	100-K-14	183-KE Acid Neutralization Pit and Overflow French Drain	Accepted	Y	New CPP/RPP Site: RTD[5]	Received waste acid solutions for neutralization and disposal.
	100-K-15	183-KW Liquid Alum Storage Tank (West)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-16	183-KW Liquid Alum Storage Tank (East)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-18	183-KW Caustic Neutralization Pit	Accepted	Y	New CPP/RPP Site: RTD[5]	Received waste caustic solutions for neutralization and disposal.
	100-K-19	183-KW Caustic Soda Storage Tank	Accepted	N	Facility for D&D[4]	Intact facility.
	100-K-20	183-KW Sodium Silicate Tank (West)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-21	183-KW Sodium Silicate Tank (East)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-22	183-KE Sodium Silicate Tank (West)	Rejected	N	Facility for D&D[4]	Intact facility
	100-K-23	183-KE Sodium Silicate Tank (East)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-24	183-KW Bauxite Tank	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-25	183-KE Caustic Neutralization Pit	Accepted	N	Facility for D&D[4]	Part of an intact facility.
	100-K-27	183-KE Caustic Soda Storage Tank	Accepted	N	Facility for D&D[4]	Intact facility.
	100-K-28	183-KE Bauxite Tank	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-29	183-KE Sandblast Area	Accepted	Y	New CPP/RPP Site: CS[5]	Under authority of DOE Spent Fuels Division, EM-60.
	100-K-30	183-KE Sulfuric Acid Tank Site (West)	Accepted	Y	New CPP/RPP Site: CS[5]	Former sulfuric acid tank site; may have received spillage.
	100-K-31	183-KE Sulfuric Acid Tank Site (East)	Accepted	Y	New CPP/RPP Site: CS[5]	Former sulfuric acid tank site; may have received spillage.
	100-K-32	183-KW Sulfuric Acid Tank Site (East)	Accepted	Y	New CPP/RPP Site: CS[5]	Former sulfuric acid tank site; may have received spillage.
	100-K-33	183-KW Sulfuric Acid Tank Site (West)	Accepted	Y	New CPP/RPP Site: CS[5]	Former sulfuric acid tank site; may have received spillage.
	100-K-34	183-KW Acid Neutralization Pit	Accepted	Y	New CPP/RPP Site: RTD[5]	Received waste acid solutions for neutralization and disposal.
	100-K-35	183-KE Acid Neutralization Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Under authority of DOE Spent Fuels Division, EM-60.
	100-K-36	1706KE Chemical Storage Facility Dry Well	Accepted	Y	New CPP/RPP Site: CS[5]	Under authority of DOE Spent Fuels Division, EM-60.
	100-K-37	1706KE Sulfuric Acid Tank	Accepted	N	Facility for D&D[4]	Under authority of DOE Spent Fuels Division, EM-60.
	100-K-38	1706KE Caustic Tank	Accepted	N	Facility for D&D[4]	Under authority of DOE Spent Fuels Division, EM-60.
	100-K-39	118-KE-3 Filter Crib (site does not exist)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.

Table NC-1. Remaining Sites Listed by Operable Unit. (16 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-KR-2 (cont.)	100-K-42	105-KE Fuel Storage Basin; Irradiated Fissile Material Storage	Rejected	Y	New CPP/RPP Site: RTD[5]	Under authority of DOE Spent Fuels Division, EM-60.
	100-K-43	105-KW Fuel Storage Basin; Irradiated Fissile Material Storage	Rejected	Y	New CPP/RPP Site: RTD[5]	Under authority of DOE Spent Fuels Division, EM-60.
	100-K-44	100-K Exclusion Areas	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-46	119-KE French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Under authority of DOE Spent Fuels Division, EM-60.
	100-K-48	100-KE Oil Contamination Areas	Accepted	Y	New CPP/RPP Site: CS[5]	Received spills of Bunker C fuel oil.
	100-K-49	100-KW Oil Contamination Areas	Accepted	Y	New CPP/RPP Site: CS[5]	Received spills of Bunker C fuel oil.
	100-K-50	Active Facility; Sanitary Sewer System Holding Tank	Accepted	N	Regulated under other authorities[1]	Under authority of DOE Spent Fuels Division, EM-60.
	100-K-51	RCRA 90-day waste accumulation area	Accepted	N	Regulated under other authorities[1]	Under authority of DOE Spent Fuels Division, EM-60.
	100-K-52	Former 1706-KE Wet Fish Studies Laboratory (now a storage room)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-53	100-KE Glycol Heat Recovery underground pipelines	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated pipelines.
	100-K-54	100-KW Glycol Heat Recovery underground pipelines	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated pipelines.
	116-KE-5	150-KE Heat Recovery Station	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	116-KE-6A	1706-KE Condensate Collection Tank	Accepted	N	RCRA TSD Unit	RCRA TSD facility. Under authority of EM-30/EM-65.
	116-KE-6B	1706-KE Evaporation Tank	Accepted	N	RCRA TSD Unit	RCRA TSD facility. Under authority of EM-30/EM-65.
	116-KE-6C	1706-KE Waste Accumulation Tank	Accepted	N	RCRA TSD Unit	RCRA TSD facility. Under authority of EM-30/EM-65.
	116-KE-6D	1706-KE Ion Exchange Column	Accepted	N	RCRA TSD Unit	RCRA TSD facility. Under authority of EM-30/EM-65.
	116-KW-4	150-KW Heat Recovery Station	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	118-K-1	100-K Burial Ground (118-K)	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-KE-1	105-KE Reactor Building	Accepted	N	Facility for D&D[4]	Key facility per Section 8 of the TPA.
	118-KE-2	105-KE Horizontal Control Rod Storage Cave	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	118-KW-1	105-KW Reactor Building	Accepted	N	Facility for D&D[4]	Key facility per Section 8 of the TPA.
	118-KW-2	105-KW Horizontal Control Rod Storage Cave	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	120-KE-1	Acid Neutralization Pit near 120-KE-4 and 120-KE-5	Accepted	Y	New CPP/RPP Site: RTD[5]	Received waste acid solutions for neutralization and disposal.
	120-KE-2	183-KE Filter Waste Facility French Drain	Accepted	Y	New CPP/RPP Site: RTD[5]	Received sulfuric acid sludge for disposal.
	120-KE-3	183-KE Filter Water Facility Trench for sulfuric acid sludge	Accepted	Y	New CPP/RPP Site: CS[5]	Sludge was removed; site cannot be found.
	120-KE-4	183-KE1 Sulfuric Acid Storage Tank	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	120-KE-5	183-KE2 Sulfuric Acid Storage Tank	Rejected	N	Facility for D&D[4]	Aboveground facility; intact.
	120-KE-6	183-KE Former Sodium Dichromate Tank Site	Accepted	Y	New CPP/RPP Site: CS[5]	Possible chromate contamination in soil.
	120-KE-8	165-KE Brine Pit	Accepted	N	Facility for D&D[4]	Under authority of DOE Spent Fuels Division, EM-60.

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Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-KR-2 (cont.)	120-KE-9	183-KE Brine Pit	Accepted	N	Facility for D&D[4]	Intact belowground facility.
	120-KW-1	Acid Neutralization Pit Near 120-KW-3 & 120-KW-4	Accepted	Y	New CPP/RPP Site: RTD[5]	Received waste acid solutions for neutralization and disposal.
	120-KW-2	183-KW Filter Water Facility French Drain	Accepted	Y	New CPP/RPP Site: RTD[5]	Received sulfuric acid sludge for disposal.
	120-KW-3	183-KW1 Sulfuric Acid Storage Tank	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	120-KW-4	183-KW2 Sulfuric Acid Storage Tank	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	120-KW-5	183-KW Former Sodium Dichromate Storage Tank Site	Accepted	Y	New CPP/RPP Site: CS[5]	Possible chromate contamination in soil.
	120-KW-6	165-KW Brine Pit	Accepted	N	Facility for D&D[4]	Intact belowground facility.
	120-KW-7	183-KW Brine Pit	Accepted	N	Facility for D&D[4]	Intact belowground facility.
	126-K-1	100-K Demolition Inert Landfill	Accepted	N	Regulated under other authorities[1]	Solid waste site; inert landfill.
	126-KE-2	183-KE Liquid Alum Storage Tank #2	Accepted	N	Facility for D&D[4]	Under authority of DOE Spent Fuels Division, EM-60.
	126-KE-3	183-KE Liquid Alum Storage Tank #1	Rejected	N	Facility for D&D[4]	Under authority of DOE Spent Fuels Division, EM-60.
	128-K-1	100-K Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Solid waste site; inert landfill.
	128-K-2	100-K Construction Dump & Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Solid waste site; inert landfill.
	130-K-1	Former location of 1717-K Gasoline Storage Tank	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97. UST removed & clean.
	130-K-2	Former location of 1717-K Waste Oil Storage Tank	Accepted	Y	New CPP/RPP Site: CS[5]	Soil believed to be contaminated.
	130-K-3	Former location of 182-K Diesel Oil Storage Tank	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	130-KE-1	Former location of 105-KE Diesel Oil Storage Tank	Accepted	Y	New CPP/RPP Site: CS[5]	UST was removed. Soil contains radioactive contamination.
	130-KE-2	166-KE Oil Storage Tank. Large concrete storage tank.	Accepted	N	Facility for D&D[4]	UST; close under WAC 173-360.
	130-KW-1	Former location of 105-KW Diesel Oil Storage Tank	Accepted	Y	New CPP/RPP Site: CS[5]	UST was removed. Soil may be contaminated.
	130-KW-2	166-KW Oil Storage Tank. Large concrete storage tank	Accepted	N	Facility for D&D[4]	UST; close under WAC 173-360.
	132-KE-1	116-KE Reactor Exhaust Stack	Accepted	N	Facility for D&D[4]	Aboveground facility; intact reactor exhaust stack.
	132-KW-1	116-KW Reactor Exhaust Stack	Accepted	N	Facility for D&D[4]	Aboveground facility; intact reactor exhaust stack.
	600-4	Howitzer Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-29	100-K Construction Laydown Area; Surface Chemical Dumping Site	Accepted	Y	New CPP/RPP Site: CS[5]	46-acre area containing solid waste and discolored soil sites.
	600-55	Paved area and collapsed structure	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	1607-K1 (124-K-1)	Active Septic Tank and Drain Field for badgehouse; change room	Accepted	N	Regulated under other authorities[1]	Under authority of DOE Spent Fuels Division, EM-60.
	1607-K2	Active Septic Tank and Drain Field for 183-KE Water Treatment Plant	Accepted	N	Regulated under other authorities[1]	Under authority of DOE Spent Fuels Division, EM-60.
	1607-K3	Inactive Septic Tank and Drain Field	Accepted	N	Regulated under other authorities[1]	FDH responsibility.
	1607-K4 (124-K-2)	Active Septic Tank and Drain Field for offices and maintenance shop	Accepted	N	Regulated under other authorities[1]	Under authority of DOE Spent Fuels Division, EM-60.

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Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-KR-2 (cont.)	1607-K5	Active Septic Tank and Drain Field for lab and KE Reactor Bldg.	Accepted	N	Regulated under other authorities[1]	Under authority of DOE Spent Fuels Division, EM-60.
	1607-K6	Active Septic Tank and Drain Field for KW Reactor Bldg.	Accepted	N	Regulated under other authorities[1]	Under authority of DOE Spent Fuels Division, EM-60.
	UPR-100-K-1	100-KE Fuel Storage Basin leak (UN-100-K-1)	Accepted	Y	New CPP/RPP Site: CS[5]	Under authority of DOE Spent Fuels Division, EM-60.
TOTAL 100-KR-2 OPERABLE UNIT REMAINING SITES: 97						
100-IU-2	600-5	Waste Oil Dump; Asphalt Heliport	Accepted	Y	New CPP/RPP Site: CS[5]	Possible soil contamination from oil.
	600-52	White Bluffs Surface Basin	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water from ice house and Pickling Acid Crib.
	600-98	East White Bluffs City Landfill (EWBCL)	Accepted	Y	New CPP/RPP Site: CS[5]	Pre-Hanford Landfill.
	600-99	J. A. Jones #2	Accepted	Y	New CPP/RPP Site: CS[5]	Insufficient data.
	600-100	White Bluffs Landfill (alias 600-119)	Accepted	Y	New CPP/RPP Site: CS[5]	Pre-Hanford Landfill.
	600-120	Spare Parts Burn Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Possible contamination from oils and solvents.
	600-121	Coal Ash Piles	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-122	White Bluffs Large Fenced Depression	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-123	Farm Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-124	Burn Site and Paint Disposal Area	Accepted	Y	New CPP/RPP Site: CS[5]	Possible lead contamination from paint.
	600-125	Waste Disposal Trench 1	Accepted	Y	New CPP/RPP Site: CS[5]	Pre-Hanford Landfill
	600-126	Small Subsidence	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-127	Fuel Storage Area	Accepted	Y	New CPP/RPP Site: CS[5]	Petroleum product contamination.
	600-128	Oil and Oil Filter Dump Site	Accepted	Y	New CPP/RPP Site: CS[5]	Probable oil contamination.
	600-129	White Bluffs Community Dump Site (Pre-Hanford)	Accepted	Y	New CPP/RPP Site: CS[5]	Possible oil product contamination.
	600-130	American Pipe Company Facilities	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-131	Special Fabrication Shop and Warehouse	Accepted	Y	New CPP/RPP Site: CS[5]	Possible oil and other chemical contamination.
	600-132	Construction Contractor Shop Landfill	Accepted	Y	New CPP/RPP Site: CS[5]	Potential for radioactive waste, oils, and solvents.
	600-135	Spare Parts Machine Shop Landfill.	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 1/22/98.
	600-136	Insulation Warehouses	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-138	Fumigation Building	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-139	Automotive Repair Shop	Accepted	Y	New CPP/RPP Site: CS[5]	Probable lead and oil products contamination.
	600-157	White Bluffs Concrete Foundation Pads	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-158	White Bluffs Ground Storage Tank and Booster Station	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-159	White Bluffs Bank Well	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.

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Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-IU-2 (cont.)	600-160	White Bluffs Irrigation Debris	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-161	White Bluffs Plumbing Debris	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-162	White Bluffs Pipe Debris	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-163	White Bluffs Pipe Testing Shop	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-164	White Bluffs Earth Berm and Trench	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-165	White Bluffs Valve Box/Subsidence	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-166	White Bluffs Subsidence	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-167	White Bluffs Cistern	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-170	White Bluffs Subsurface Concrete Structure	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-171	White Bluffs Townsite	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-172	White Bluffs French Drain or Dry Well	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-173	White Bluffs Domestic Debris Dump and Building Foundation	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-174	White Bluffs French Drain	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-175	Original Priest Rapids Ice House Drain Field	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-176	White Bluffs Paint Disposal Area	Accepted	Y	New CPP/RPP Site: CS[5]	Possible lead contamination from paint.
	600-177	White Bluffs Pipe Bender and Equipment Dumping Area	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-179	Priest Rapids Ice House	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-180	White Bluffs Suspect Automotive Repair Shop	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-181	White Bluffs Oil Dump	Accepted	Y	New CPP/RPP Site: CS[5]	Oil contamination.
	600-182	White Bluffs Asbestos Pipe Lagging and Excess Piping	Accepted	N	Regulated under other authorities[1]	Possible asbestos contamination.
	600-183	White Bluffs Burn Pile and Debris	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-184	White Bluffs Townsite Septic System	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-188	White Bluffs Waste Disposal Trench 2	Accepted	Y	New CPP/RPP Site: CS[5]	Buldging drums and chemical or oil dumping.
	600-189	White Bluffs Warehouse Facility French Drains.	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 1/22/98.
	600-190	White Bluffs Warehouse Tar/Paint Disposal Area	Accepted	Y	New CPP/RPP Site: CS[5]	Possible oil and paint contamination.
	600-191	White Bluffs Pre-MED Community Dump Site 2	Accepted	N	Regulated under other authorities[1]	Oil product contamination.
	600-193	White Bluffs Gas Station	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-194	White Bluffs Main Pipe Fabrication Shop	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-195	White Bluffs Townsite Electrical Substation	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.

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Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-IU-2 (cont.)	600-196	White Bluffs Farm Dump Site and Partially Backfilled Pit	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-198	White Bluffs River Bank Concrete Structure	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-199	White Bluffs Ash Covered Concrete Pad	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 3/11/98.
	600-200	Priest Rapids Ice House Septic Tank	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-201	White Bluffs Paint and Solid Waste Disposal Site	Accepted	Y	New CPP/RPP Site: CS[5]	Possible lead contamination from paint.
	600-203	White Bluffs French Drains	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-209	White Bluffs Excess Railroad Tie Materials	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	628-1	White Bluffs Burn Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Possible hazardous materials.
TOTAL 100-IU-2 OPERABLE UNIT REMAINING SITES: 62						
100-IU-6	600-3	Hanford Townsite Dumping Area and Paint Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Possible soil contamination from paint cans.
	600-20	Tank Cleaning Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-24	West P-11, Anti-Aircraft Artillery Compound	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-26	Hanford Townsite Burn Pile	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-27	Abandoned monitoring well; Well DC-6; Well 699-50-18C	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-50	Hanford construction camp coal yard (101 Building)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97. Coal ash site.
	600-107	Cribs at 213-J&K Gable Mtn. Plutonium Storage Vaults	Accepted	Y	New CPP/RPP Site: CS[5]	Cribs were surveyed and removed. Documentation is not available.
	600-108	213-J & K Gable Mountain Plutonium Storage Vaults	Accepted	Y	New CPP/RPP Site: CS[5]	Surveyed and released. Documentation is not available.
	600-109	Hanford Trailer Camp Landfill (HTCL)	Accepted	Y	New CPP/RPP Site: CS[5]	Domestic landfill. No hazardous materials known.
	600-110	Hanford Townsite Landfill (HTL)	Accepted	Y	New CPP/RPP Site: CS[5]	Pre-MED Hanford townsite landfill. No hazardous materials known.
	600-111	P-11 Critical Mass Laboratory	Accepted	Y	New CPP/RPP Site: CS[5]	Possible remaining septic tanks and drain field.
	600-149	Small Arms Range	Accepted	Y	New CPP/RPP Site: RTD[5]	Lead contamination and unexploded ordnance.
	600-168	Buckholdt Ranch Toilet Pits, Merriford Ranch Toilet Pits	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-169	Hanford Construction Camp Trenches	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-178	213-J and 213-K Guard House Toilet Pit	Accepted	N	Regulated under other authorities[1]	Reclassify as rejected. Toilet pit.
	600-185	Hanford Construction Camp Honey Dump Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-186	Hanford Construction Camp Septic Tanks and Sewage	Accepted	N	Regulated under other authorities[1]	Sanitary waste dump site.
	600-192	Hanford Construction Camp Fumigation Chamber	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-202	Four Burn and Burial Pits at Hanford Townsite	Accepted	Y	New CPP/RPP Site: CS[5]	Possible chemical and oil contamination.
	600-204	Hanford Townsite Burn and Burial Trench	Accepted	Y	New CPP/RPP Site: CS[5]	Possible chemical and oil contamination.

Table NC-1. Remaining Sites Listed by Operable Unit. (16 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-IU-6 (cont.)	600-205	Hanford Townsite Landfill 2	Accepted	Y	New CPP/RPP Site: CS[5]	Pre-MED Hanford townsite landfill. No hazardous materials known.
	600-206	101 Building Graphite Dump Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-207	Hanford Construction Camp Powerhouse Ash Pile	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97. Coal ash site.
	600-208	Hanford Construction Camp Boiler House Ponds	Accepted	Y	New CPP/RPP Site: CS[5]	Boiler house waste water ponds. No hazardous materials known.
	600-213	Hanford Airport Underground Fuel Storage Tanks	Accepted	N	Regulated under other authorities[1]	Tanks have not been found.
	UPR-600-16	Fire and contamination spread; UN-600-16	Accepted	Y	New CPP/RPP Site: CS[5]	Removed from radiation zone status.
	UPR-600-18	Tank Truck Gasoline Spill; UN-600-18	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	UPR-600-19	Former site of Lime Sulfur Barrel; removed	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
TOTAL 100-IU-6 OPERABLE UNIT REMAINING SITES: 28						
200-CW-3	216-N-1	Cooling Water Pond	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 212-N Building fuel storage basins.
	216-N-2	Cooling Water Trench for drainage of basins for special tests	Accepted	Y	New CPP/RPP Site: CS[5]	Received water and sludge from 212-N Building fuel storage basins.
	216-N-3	Cooling Water Trench for cleanout of fuel storage basins	Accepted	Y	New CPP/RPP Site: CS[5]	Received water and sludge from 212-N Building fuel storage basins
	216-N-4	Cooling Water Pond	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 212-P Building fuel storage basins.
	216-N-5	Cooling Water Trench for cleanout of fuel storage basins	Accepted	Y	New CPP/RPP Site: CS[5]	Received water and sludge from 212-P Building fuel storage basins.
	216-N-6	Cooling Water Pond	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 212-R Building fuel storage basins.
	216-N-7	Cooling Water Trench for cleanout of fuel storage basins	Accepted	Y	New CPP/RPP Site: CS[5]	Received water and sludge from 212-R Building fuel storage basins.
TOTAL 200-CW-3 WASTE SITE GROUPING SITES: 7						
REMAINING SITES GRAND TOTAL: 442						

[1]WIDS classifications and the disposition of waste sites regulated under other authorities than CERCLA are described in Tri-Party Agreement Handbook Management Guideline MP-14, "Maintenance of the Waste Site Information Data" (DOE-RL 1997).

[2]See *Federal Facility Agreement and Consent Order* Change Control Form No. C-98-01 (submitted for approval during September 1998).

[3]The Tri-Parties have agreed that 100 Area burial grounds will be addressed in separate CERCLA decision documents, as discussed in Section N1.0.

[4]The Tri-Parties have agreed that D&D of facilities will be addressed in separate CERCLA decision documents.

[5]Application of the Remove/Treat/Dispose (RTD) standard remedy and Confirmation Sampling (CS) to 100 Area Remaining Sites is discussed in the draft *Proposed Plan for Interim Remedial Actions at the 100 Area Remaining Sites*, DOE/RL-98-83.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
NEW CERCLA RCRA PAST PRACTICE SITES (PER THIS DOCUMENT): SITES FOR REMOVE/TREAT/DISPOSE						
100-BC-1	116-B-7	116-B-7, Outfall Structure	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure.
	128-B-3	Coal Ash and Demolition Waste Site; Dump & Burning Pit Site.	Accepted	Y	New CPP/RPP Site: RTD[5]	No data; evidence of stressed vegetation.
	132-B-6	1904-B2 Outfall Structure Site, 116-B-8	Accepted	Y	New CPP/RPP Site: RTD[5]	Former structure; demolished in place.
	132-C-2	1904-C Outfall, 116-C-4	Accepted	Y	New CPP/RPP Site: RTD[5]	Former structure; demolished in place.
100-DR-1	100-D-1	Contaminated Storm Drain	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated by retention basin leakage.
	100-D-2	Lead Sheeting (formerly 100-D-39)	Accepted	Y	New CPP/RPP Site: RTD[5]	Removal of lead may clear site.
	100-D-3	Solid Waste Burial Site; Silica Gel	Accepted	Y	New CPP/RPP Site: RTD[5]	Possible site of 100-D Pluto Crib.
	100-D-19	Sludge Trench #6 Near 107-DR Retention Basin	Accepted	Y	New CPP/RPP Site: RTD[5]	Received sludge from cleanout of retention basins.
	100-D-31	100-D Process Sewer System	Accepted	Y	New CPP/RPP Site: RTD[5]	Piping potentially contaminated
	116-D-5	1904-D Outfall Structure	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure.
	116-DR-5	1904-DR Outfall Structure	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure (filled with soil).
	120-D-2	186-D Waste Acid Reservoir; demolished in place	Accepted	Y	New CPP/RPP Site: RTD[5]	Contains lead lining.
100-DR-2	100-D-12	Sodium Dichromate/Acid Railcar and Truck Unloading Station	Accepted	Y	New CPP/RPP Site: RTD[5]	Soil sampling confirmed presence of chromates.
	116-D-8	100-D Cask Storage Pad	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated with radionuclides.
	116-DR-7	Inkwell Crib	Accepted	Y	New CPP/RPP Site: RTD[5]	Crib received potassium borate contaminated with radionuclides.
100-FR-1	116-F-8	1904-F Outfall Structure	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure.
	116-F-15	108-F Radiation Crib	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of 108-F Building.
	116-F-16	PNL Outfall	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure.
	1607-F2	Septic tank and drain field for 105-F Reactor Bldg.	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated septic system.
	1607-F6 (124-F-6)	Septic tank and drain field for animal farm buildings	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated septic system.
100-FR-2	100-F-2	Strontium Gardens	Accepted	Y	New CPP/RPP Site: RTD[5]	Fenced area for tests of plant uptake of Sr-90 and Cs-137.
	120-F-1	Glass Dump	Accepted	Y	New CPP/RPP Site: RTD[5]	Disposal trench for light bulbs, glass, and electrical components.
100-HR-1	100-H-11	Expansion Box French Drain E	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of the 105-H Reactor Building.
	100-H-12	French Drain F, expansion box, and shielding lead	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of the 105-H Reactor Building.
	100-H-13	French Drain G	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of the 105-H Reactor Building.
	100-H-14	Surface Contamination Zone H	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of the 105-H Reactor Building.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-HR-1 (cont.)	100-H-22	Soil Contaminated by Effluent Line Leakage	Accepted	Y	New CPP/RPP Site: RTD[5]	Expected to be removed with Process Effluent Pipelines.
	100-H-24	151-H Electrical Facilities and Laydown Yard	Accepted	Y	New CPP/RPP Site: RTD[5]	Under authority of Site Infrastructure Division, EM-70.
	100-H-31	PCB in soil at north side of 105-H Reactor Bldg.	Accepted	Y	New CPP/RPP Site: RTD[5]	Coordinate with D&D of the 105-H Reactor Building.
	116-H-5	1904-H Outfall Structure	Accepted	Y	New CPP/RPP Site: RTD[5]	Aboveground facility, intact outfall structure.
	116-H-9	Crib for drainage of 117-H Filter Building seal pits	Accepted	Y	New CPP/RPP Site: RTD[5]	Intact belowground structure; intact. Coordinate with D&D.
	1607-H2 (124-H-2)	Septic Tank and Drain Field for 182-H, 183-H and 190-H Bldgs.	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated septic system.
	1607-H4 (124-H-4)	Septic Tank and Drain Field for 181-H pumphouse.	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated septic system.
100-KR-1	116-K-3	Outfall Structure for discharge of process effluent to the river	Accepted	Y	New CPP/RPP Site: RTD[5]	Under Authority of DOE Spent Fuels Division, EM-60.
100-KR-2	100-K-14	183-KE Acid Neutralization Pit and Overflow French Drain	Accepted	Y	New CPP/RPP Site: RTD[5]	Received waste acid solutions for neutralization and disposal.
	100-K-18	183-KW Caustic Neutralization Pit	Accepted	Y	New CPP/RPP Site: RTD[5]	Received waste caustic solutions for neutralization and disposal.
	100-K-34	183-KW Acid Neutralization Pit	Accepted	Y	New CPP/RPP Site: RTD[5]	Received waste acid solutions for neutralization and disposal.
	100-K-42	105-KE Fuel Storage Basin; Irradiated Fissile Material Storage	Rejected	Y	New CPP/RPP Site: RTD[5]	Under Authority of DOE Spent Fuels Division, EM-60.
	100-K-43	105-KW Fuel Storage Basin; Irradiated Fissile Material Storage	Rejected	Y	New CPP/RPP Site: RTD[5]	Under Authority of DOE Spent Fuels Division, EM-60.
	100-K-53	100-KE Glycol Heat Recovery underground pipelines	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated pipelines.
	100-K-54	100-KW Glycol Heat Recovery underground pipelines	Accepted	Y	New CPP/RPP Site: RTD[5]	Contaminated pipelines.
	120-KE-1	Acid Neutralization Pit near 120-KE-4 and 120-KE-5	Accepted	Y	New CPP/RPP Site: RTD[5]	Received waste acid solutions for neutralization and disposal.
	120-KE-2	183-KE Filter Waste Facility French Drain	Accepted	Y	New CPP/RPP Site: RTD[5]	Received sulfuric acid sludge for disposal.
	120-KW-1	Acid Neutralization Pit Near 120-KW-3 & 120-KW-4	Accepted	Y	New CPP/RPP Site: RTD[5]	Received waste acid solutions for neutralization and disposal.
	120-KW-2	183-KW Filter Water Facility French Drain	Accepted	Y	New CPP/RPP Site: RTD[5]	Received sulfuric acid sludge for disposal.
100-IU-6	600-149	Small Arms Range	Accepted	Y	New CPP/RPP Site: RTD[5]	Lead contamination and unexploded ordnance.
NEW CERCLA RCRA PAST PRACTICE SITES (PER THIS DOCUMENT): SITES FOR CONFIRMATION SAMPLING						
100-BC-1	100-B-3	Former Hot Thimble Burial Ground	Accepted	Y	New CPP/RPP Site: CS[5]	Thimble removed; site may contain radioactive debris.
	100-B-5	Effluent Vent Disposal Trench	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-B-10	Leak from 116-B-11 (107-B) Retention Basin	Accepted	Y	New CPP/RPP Site: CS[5]	Springs observed along the Columbia River in 1949.
	116-B-15	105-B Fuel Storage Basin Cleanout Percolation Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Received cleaned water from 105-B Fuel Storage Basin cleanout.
	120-B-1	105-B Battery Acid Sump	Accepted	Y	New CPP/RPP Site: CS[5]	Sump was cleaned in 1986 and not reused.
	126-B-3	184-B Coal Pit. Contains demolition debris	Accepted	Y	New CPP/RPP Site: CS[5]	Solid waste site; inert landfill.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-BC-1 (cont.)	128-B-2	100-B Burn Pit #2	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	132-B-1	108-B Tritium Separation Facility	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-B-3	108-B Ventilation Exhaust Stack Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-B-4	117-B Filter Building	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-B-5	115-B/C Gas Recirculation Facility	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	1607-B2 (124-B-2)	Septic Tank System for 105-B Reactor and offices	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-B7 (124-C-1)	Septic Tank System for 183-B water treatment plant	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
100-BC-2	100-B-1	Surface Chemical and Solid Waste Dumping Area, Laydown Yard	Accepted	Y	New CPP/RPP Site: CS[5]	Site contains debris and distressed vegetation.
	100-C-3	119-C Sample Building French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water and discharge from floor drain.
	100-C-7	183-C Filter Building/Pumproom Facility	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	116-C-3	105-C Chemical Waste Tanks (unused)	Accepted	Y	New CPP/RPP Site: CS[5]	Unused tanks containing water.
	116-C-6	105-C Fuel Storage Basin Cleanout Percolation Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Received cleaned water from 105-C Fuel Storage Basin cleanout.
	128-C-1	100-C Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	132-C-1	116-C Reactor Stack Burial Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-C-3	117-C Filter Building Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	1607-B8	Septic Tank and Drain Field for 190-C pumphouse	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-B9	Septic Tank and Drain Field for 105-C Reactor Building	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-B10	Septic Tank and Drain Field for 183-C water treatment plant	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-B11	Septic Tank and Drain Field for 183-C water filter pumphouse.	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
100-DR-	100-D-7	Solid Waste Dump	Accepted	N	New CPP/RPP Site: CS[5]	Site contains miscellaneous surface debris.
	100-D-8	105-DR Process Sewer Outfall Site; 1907-DR	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	100-D-24	119D Sample Building French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Indicated on Site dwg U-1-19810.
	100-D-30	190-D Sodium Dichromate Soil Contamination	Accepted	Y	New CPP/RPP Site: CS[5]	Not known to be contaminated with Chromium VI.
	116-D-10	105-D Fuel Storage Basin Cleanout Percolation Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Received cleaned water from 105-D Fuel Storage Basin cleanout.
	128-D-2	Burn Pit Site	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	130-D-1	1716-D Gasoline Storage Tank Site	Accepted	Y	New CPP/RPP Site: CS[5]	Contaminated soil left in place when tank was removed.
	132-D-1	115-D/DR Gas Recirculating Facility	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-D-2	117-D Filter Building.	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-DR-1 (cont.)	132-D-3	1608-D Waste Water / Effluent Pumping Station	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	628-3	Burn Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	1607-D4	Septic Tank and Drain Field for 115-D/DR Gas Recirculation Bldg.	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-D5	Septic Tank and Drain Field for 181-D pumphouse	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	UPR-100-D-1	Oil Soaked Soil	Accepted	N	New CPP/RPP Site: CS[5]	Evaluate under WAC 173-340-740, Method A for cleanup.
100-DR-2	100-D-13	Septic Tank and drain field for temporary construction facilities	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	100-D-15	Undocumented Solid Waste Burial Sites/Borrow Pits	Accepted	Y	New CPP/RPP Site: CS[5]	Solid waste; dump area for Army site wastes, paint, and solvent cans
	100-D-23	119-DR Building French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Found on Site Drawing U-1-19810.
	100-D-27	Spill of transformer oil; cleaned up	Accepted	Y	New CPP/RPP Site: CS[5]	Assays of residual soil not available.
	100-D-28	Septic System for the 190-DR Building	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	116-DR-10	105-DR Fuel Storage Basin Cleanout Percolation Pond	Accepted	Y	New CPP/RPP Site: CS[5]	Received cleaned water from 105-DR Fuel Storage Basin cleanout.
	116-DR-8	117-DR Seal Pit Crib	Accepted	Y	New CPP/RPP Site: CS[5]	Received water contaminated with radioactive wastes.
	128-D-1	100 D/DR Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	132-DR-1	1608-DR Waste Water / Effluent Pumping Station	Accepted	Y	New CPP/RPP Site: CS[5]	Former facility demolished in place.
	600-30	100-DR Construction Lay-down Area	Accepted	Y	New CPP/RPP Site: CS[5]	Miscellaneous solid waste and areas of distressed vegetation.
100-FR-1	100-F-4	108-F Building 12-inch French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Coordinate with D&D of 108-F Building.
	100-F-7	Possible underground fuel tank at 1705-F Building	Accepted	Y	New CPP/RPP Site: CS[5]	Possible UST; If found, close under WAC 173-360.
	100-F-9	First French drain at east end of 105-F Storage Room	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water for disposal.
	100-F-10	Second French drain at east end of 105-F Storage Room	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water for disposal.
	100-F-11	108-F Building 18-inch French drain	Accepted	Y	New CPP/RPP Site: CS[5]	Coordinate with D&D of 108-F Building.
	100-F-12	36-inch French Drain at 105-F Building	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water for disposal.
	100-F-16	108-F Building 30-inch French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Coordinate with D&D of 108-F Building.
	100-F-18	Site of former underground condensate tank at 105-F Bldg.	Accepted	Y	New CPP/RPP Site: CS[5]	Drain field may remain.
	100-F-23	141-F Drywell	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-F-24	145-F Drywell/French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-F-25	146-F Drywell/French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-F-29	100-F Experimental Animal Farm process sewer pipelines	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-FR-1 (cont.)	100-F-31	144-F Sanitary Sewer System	Accepted	Y	New CPP/RPP Site: CS[5]	May have been removed during D&D of 144-F Building.
	100-F-33	1705-F Fish Farm	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	100-F-34	Biology Facility French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Site not previously investigated.
	116-F-7	117-F French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water for disposal.
	116-F-12	148-F French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water for disposal.
	126-F-2	183-F Clearwells; Demolition/Inert Landfill	Accepted	Y	New CPP/RPP Site: CS[5]	Inert landfill for disposal of inert materials from other D&D projects.
	128-F-2	100-F Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	132-F-1	Chronic Feeding Barn Site	Accepted	Y	New CPP/RPP Site: CS[5]	Test pit found no contamination above background.
	132-F-3	115-F Gas Recirculation Facility Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure; cleaned and demolished in place.
	132-F-4	116-F Reactor Stack Demolition Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure; cleaned and demolished in place.
	132-F-5	117-F Filter Building Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure; cleaned and demolished in place.
	132-F-6	1608-F Waste Water Pumping Station Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure; cleaned and demolished in place.
	141-C	Large Animal Barn & Biology Laboratory	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure; cleaned, demolished, and removed.
	182-F	182-F Reservoir	Accepted	Y	New CPP/RPP Site: CS[5]	Inert landfill for disposal of inert materials from other D&D projects.
	1607-F3 (124-F-3)	Septic tank and drain field for F-Area facilities	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-F4 (124-F-4)	Septic tank and drain field for 115-F Gas Recirculation Bldg.	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-F5 (124-F-5)	Septic tank and drain field for 181-F pumphouse	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	1607-F7 (124-F-7)	Septic tank and drain field for 141-M Building.	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
	UPR-100-F-1	UN-100-F-1 Unplanned Release, Process Sewer Line Leak	Accepted	Y	New CPP/RPP Site: CS[5]	Spill of animal waste from washing of pens.
	UPR-100-F-3	Mercury Spill at 146-F Fish Lab	Accepted	Y	New CPP/RPP Site: CS[5]	Said to have been cleaned up.
100-FR-2	100-F-14	Vent pipe (Carpenter shop waste site vent)	Accepted	Y	New CPP/RPP Site: CS[5]	Soil gas and radiation surveys found no hazardous substances.
	100-F-28	Septic tank and drain field for undocumented building	Accepted	Y	New CPP/RPP Site: CS[5]	Under authority of DOE Site Infrastructure Division, EM-70.
	118-F-4	Silica Gel Burial Ground; 115-F Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Silica gel containing C-12 from 115-F gas recirculation facility.
	128-F-1	Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	128-F-3	PNL Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	1607-F1 (124-F-1)	Septic tank and drain field for badge house and change room	Accepted	Y	New CPP/RPP Site: CS[5]	Septic system; may be contaminated.
100-HR-1	100-H-3	Suspect Waste Site: 1716-H Garage Fuel Tank Site	Accepted	Y	New CPP/RPP Site: CS[5]	Possible UST; If found, close under WAC 173-360.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-HR-1 (cont.)	100-H-4	1717-H Hot Shop French Drain and Contaminated Storage Unit	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place; radionuclide contamination.
	100-H-7	French Drain A	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 105-H Reactor Building.
	100-H-8	French Drain B	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 105-H Reactor Building.
	100-H-9	French Drain C	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 105-H Reactor Building.
	100-H-10	French Drain D	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 105-H Reactor Building.
	126-H-2	183-H Clearwells/Disposal Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Demolition rubble in a former structure demolished in place.
	132-H-1	116-H Reactor Exhaust Stack Burial Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	132-H-3	1608-H Waste Water Pumping Station Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
100-HR-2	128-H-1	Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	128-H-2	Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Used for burning of solvents and solid wastes; no burial sites.
	128-H-3	100-H Burning Ground #3	Accepted	Y	New CPP/RPP Site: CS[5]	Solid waste site; inert landfill.
	132-H-2	117-H Filter Building Site	Accepted	Y	New CPP/RPP Site: CS[5]	Former structure demolished in place.
	600-151	Pre-Hanford Dumping Area	Accepted	Y	New CPP/RPP Site: CS[5]	Site contains scattered debris and disturbed vegetation.
	1607-H1	Septic Tank and Drain Field, (alias 124-H-1)	Accepted	Y	New CPP/RPP Site: CS[5]	Potentially contaminated septic system.
100-KR-2	100-K-13	French Drain west of 166-KW oil storage tank	Accepted	Y	New CPP/RPP Site: CS[5]	Received "grey water" from temporary construction facilities.
	100-K-29	183-KE Sandblast Area	Accepted	Y	New CPP/RPP Site: CS[5]	Under Authority of DOE Spent Fuels Division, EM-60.
	100-K-30	183-KE Sulfuric Acid Tank Site (West)	Accepted	Y	New CPP/RPP Site: CS[5]	Former sulfuric acid tank site; may have received spillage.
	100-K-31	183-KE Sulfuric Acid Tank Site (East)	Accepted	Y	New CPP/RPP Site: CS[5]	Former sulfuric acid tank site; may have received spillage.
	100-K-32	183-KW Sulfuric Acid Tank Site (East)	Accepted	Y	New CPP/RPP Site: CS[5]	Former sulfuric acid tank site; may have received spillage.
	100-K-33	183-KW Sulfuric Acid Tank Site (West)	Accepted	Y	New CPP/RPP Site: CS[5]	Former sulfuric acid tank site; may have received spillage.
	100-K-35	183-KE Acid Neutralization Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Under Authority of DOE Spent Fuels Division, EM-60.
	100-K-36	1706KE Chemical Storage Facility Dry Well	Accepted	Y	New CPP/RPP Site: CS[5]	Under Authority of DOE Spent Fuels Division, EM-60.
	100-K-46	119-KE French Drain	Accepted	Y	New CPP/RPP Site: CS[5]	Under Authority of DOE Spent Fuels Division, EM-60.
	100-K-48	100-KE Oil Contamination Areas	Accepted	Y	New CPP/RPP Site: CS[5]	Received spills of Bunker C fuel oil.
	100-K-49	100-KW Oil Contamination Areas	Accepted	Y	New CPP/RPP Site: CS[5]	Received spills of Bunker C fuel oil.
	120-KE-3	183-KE Filter Water Facility Trench for sulfuric acid sludge	Accepted	Y	New CPP/RPP Site: CS[5]	Sludge was removed; site cannot be found.
	120-KE-6	183-KE Former Sodium Dichromate Tank Site	Accepted	Y	New CPP/RPP Site: CS[5]	Possible chromate contamination in soil.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-KR-2 (cont.)	120-KW-5	183-KW Former Sodium Dichromate Storage Tank Site	Accepted	Y	New CPP/RPP Site: CS[5]	Possible chromate contamination in soil.
	128-K-1	100-K Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Solid waste site; inert landfill.
	128-K-2	100-K Construction Dump & Burning Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Solid waste site; inert landfill.
	130-K-2	Former location of 1717-K Waste Oil Storage Tank	Accepted	Y	New CPP/RPP Site: CS[5]	Soil believed to be contaminated.
	130-KE-1	Former location of 105-KE Diesel Oil Storage Tank	Accepted	Y	New CPP/RPP Site: CS[5]	UST was removed. Soil contains radioactive contamination.
	130-KW-1	Former location of 105-KW Diesel Oil Storage Tank	Accepted	Y	New CPP/RPP Site: CS[5]	UST was removed. Soil may be contaminated.
	600-29	100-K Construction Laydown Area; Surface Chemical Dumping Site	Accepted	Y	New CPP/RPP Site: CS[5]	46-acre area containing solid waste and discolored soil sites.
	UPR-100-K-1	100-KE Fuel Storage Basin leak (UN-100-K-1)	Accepted	Y	New CPP/RPP Site: CS[5]	Under Authority of DOE Spent Fuels Division, EM-60.
100-IU-2	600-5	Waste Oil Dump; Asphalt Heliport	Accepted	Y	New CPP/RPP Site: CS[5]	Possible soil contamination from oil.
	600-52	White Bluffs Surface Basin	Accepted	Y	New CPP/RPP Site: CS[5]	Received waste water from ice house and Pickling Acid Crib.
	600-98	East White Bluffs City Landfill (EWBCL)	Accepted	Y	New CPP/RPP Site: CS[5]	Pre-Hanford Landfill.
	600-99	J. A. Jones #2	Accepted	Y	New CPP/RPP Site: CS[5]	Insufficient data.
	600-100	White Bluffs Landfill (alias 600-119)	Accepted	Y	New CPP/RPP Site: CS[5]	Pre-Hanford Landfill.
	600-120	Spare Parts Burn Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Possible contamination from oils and solvents.
	600-124	Burn Site and Paint Disposal Area	Accepted	Y	New CPP/RPP Site: CS[5]	Possible lead contamination from paint.
	600-125	Waste Disposal Trench 1	Accepted	Y	New CPP/RPP Site: CS[5]	Pre-Hanford Landfill.
	600-127	Fuel Storage Area	Accepted	Y	New CPP/RPP Site: CS[5]	Petroleum product contamination.
	600-128	Oil and Oil Filter Dump Site	Accepted	Y	New CPP/RPP Site: CS[5]	Probable oil contamination.
	600-129	White Bluffs Community Dump Site (Pre-Hanford)	Accepted	Y	New CPP/RPP Site: CS[5]	Possible oil product contamination.
	600-131	Special Fabrication Shop and Warehouse	Accepted	Y	New CPP/RPP Site: CS[5]	Possible oil and other chemical contamination.
	600-132	Construction Contractor Shop Landfill	Accepted	Y	New CPP/RPP Site: CS[5]	Potential for radioactive waste, oils, and solvents.
	600-139	Automotive Repair Shop	Accepted	Y	New CPP/RPP Site: CS[5]	Probable lead and oil products contamination.
	600-176	White Bluffs Paint Disposal Area	Accepted	Y	New CPP/RPP Site: CS[5]	Possible lead contamination from paint.
	600-181	White Bluffs Oil Dump	Accepted	Y	New CPP/RPP Site: CS[5]	Oil contamination.
	600-188	White Bluffs Waste Disposal Trench 2	Accepted	Y	New CPP/RPP Site: CS[5]	Bulging drums and chemical or oil dumping.
	600-190	White Bluffs Warehouse Tar / Paint Disposal Area	Accepted	Y	New CPP/RPP Site: CS[5]	Possible oil and paint contamination.
	600-201	White Bluffs Paint and Solid Waste Disposal Site	Accepted	Y	New CPP/RPP Site: CS[5]	Possible lead contamination from paint.
	628-1	White Bluffs Burn Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Possible hazardous materials.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-IU-6	600-3	Hanford Townsite Dumping Area and Paint Pit	Accepted	Y	New CPP/RPP Site: CS[5]	Possible soil contamination from paint cans.
	600-107	Cribs at 213-J&K Gable Mtn. Plutonium Storage Vaults	Accepted	Y	New CPP/RPP Site: CS[5]	Cribs were surveyed and removed. Documentation is not available.
	600-108	213-J & K Gable Mountain Plutonium Storage Vaults	Accepted	Y	New CPP/RPP Site: CS[5]	Surveyed and released. Documentation is not available.
	600-109	Hanford Trailer Camp Landfill (HTCL)	Accepted	Y	New CPP/RPP Site: CS[5]	Domestic landfill. No hazardous materials known.
	600-110	Hanford Townsite Landfill (HTL)	Accepted	Y	New CPP/RPP Site: CS[5]	Pre-MED Hanford townsite landfill. No hazardous materials known.
	600-111	P-11 Critical Mass Laboratory	Accepted	Y	New CPP/RPP Site: CS[5]	Possible remaining septic tanks and drain field.
	600-202	Four Burn and Burial Pits at Hanford Townsite	Accepted	Y	New CPP/RPP Site: CS[5]	Possible chemical and oil contamination.
	600-204	Hanford Townsite Burn and Burial Trench	Accepted	Y	New CPP/RPP Site: CS[5]	Possible chemical and oil contamination.
	600-205	Hanford Townsite Landfill 2	Accepted	Y	New CPP/RPP Site: CS[5]	Pre-MED Hanford townsite landfill. No hazardous materials known.
	600-208	Hanford Construction Camp Boiler House Ponds	Accepted	Y	New CPP/RPP Site: CS[5]	Boiler house waste water ponds. No hazardous materials known.
	UPR-600-16	Fire and contamination spread; UN-600-16	Accepted	Y	New CPP/RPP Site: CS[5]	Removed from radiation zone status.
200-CW-3	216-N-1	Cooling Water Pond	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 212-N Building fuel storage basins.
	216-N-2	Cooling Water Trench for drainage of basins for special tests	Accepted	Y	New CPP/RPP Site: CS[5]	Received water and sludge from 212-N Building fuel storage basins.
	216-N-3	Cooling Water Trench for cleanout of fuel storage basins	Accepted	Y	New CPP/RPP Site: CS[5]	Received water and sludge from 212-N Building fuel storage basins
	216-N-4	Cooling Water Pond	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 212-P Building fuel storage basins.
	216-N-5	Cooling Water Trench for cleanout of fuel storage basins	Accepted	Y	New CPP/RPP Site: CS[5]	Received water and sludge from 212-P Building fuel storage basins.
	216-N-6	Cooling Water Pond	Accepted	Y	New CPP/RPP Site: CS[5]	Received cooling water from 212-R Building fuel storage basins.
	216-N-7	Cooling Water Trench for cleanout of fuel storage basins	Accepted	Y	New CPP/RPP Site: CS[5]	Received water and sludge from 212-R Building fuel storage basins.
REJECTED SITES						
100-BC-1	100-B-4	Pre-Hanford Building Foundation.	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 9/9/97.
	126-B-1	184-B Power House Ash Pit	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 6/25/98.
	126-B-4	B Area Brine and Salt Dilution Pits	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 9/9/97.
	128-B-1	Suspected Burn Pit. Site is coincident with waste site 116-C-1.	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 9/9/97.
	600-34	100-B Baled Tumbleweed Disposal Site	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 9/9/97.
	600-56	Pre-Hanford Farm Site	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 9/9/97.
100-BC-2	100-C-2	Possible Building Foundation and Parking Lot	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 9/9/97.
	100-C-4	Valve pit for water pipeline	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 9/9/97.
	124-C-4	Number incorrectly assigned for a septic system that does not exist.	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 9/9/97.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-DR-1	100-D-10	Storm Drain Outfall; demolished and removed	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-26	Borrow Pit; Potential Burial Trenches	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-34	100-D/DR Exclusion Area	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-38	Suspect Septic Tank; actually a junction box and manhole	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	126-D-1	184-D Powerhouse Ash Pit, 188-D Ash Disposal Area	Rejected	N	Rejected	Reclassified as "Rejected" by Ecology & RL; 6/25/98
	126-D-3	D Area Brine and Salt Dilution Pits. Cleaned and demolished in place	Rejected	N	Rejected	Reclassified as "Rejected" by Ecology & RL; 8/27/97.
100-DR-2	100-D-11	Former site of Temporary Garage and Gasoline Dispensing Station	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-17	Former burn pit for construction debris	Rejected	N	Rejected	Reclassified as "Rejected" by Ecology & RL; 8/27/97.
	100-D-36	1614-D-1, Concrete Pad for Monitoring Station (600 Area)	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
	100-D-37	1614-D-3 Concrete Pad for Monitoring Station (600 Area)	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/27/97.
100-FR-1	100-F-5	1717-F Building steam condensate drywell	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 7/29/97.
	100-F-6	Temporary construction fuel tanks and pumps (removed)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	100-F-8	Steam condensate French drains near 105-F Gate	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 7/29/97.
	100-F-17	Chemicals used at 108-F Building; Chemical storage tanks at 108-F	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	100-F-21	100-F Exclusion Area	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	100-F-30	144-F Drywell/French Drain	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	100-F-32	1717-F Building Underground Fuel Tanks	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	116-F-13	1705-F Experimental Garden French Drain (not a French drain)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	132-F-2	144-F, 144-FB Inhalation Laboratory Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
100-FR-2	100-F-1	100-FR-2 Depression	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 7/29/97.
	600-31	100-F Area Bottle Disposal Site	Rejected	N	Rejected	Reclassified as "Rejected" by EPA & RL; 7/29/97.
100-HR-1	100-H-6	Ramp at the 105-H Reactor Building; formerly contaminated	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-18	Stack Emission No. 1	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-19	Stack Emission No. 2	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-20	Swallow nests and droppings	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-26	100-H Exclusion Area	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
100-HR-2	100-H-15	Site incorrectly identified as a septic tank and drain field	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-16	Suspect Waste Site: Power House Brine Pit and French Drain	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.
	100-H-27	100-H Area Patrol Headquarters Storm Runoff Ditch	Rejected	N	Rejected	Ecology & RL concurred on "Rejection" 8/8/97.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-HR-2 (cont.)	126-H-1	184-H Powerhouse Ash Pit; 188-H Ash Disposal Area	Rejected	N	Rejected	Reclassified as "Rejected" by Ecology & RL; 6/25/98.
100-KR-2	100-K-7	165-KE Ethylene Glycol Tanks	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-8	165-KW Ethylene Glycol Tanks	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-9	118-KE-2 Control Rod Storage Cave French Drain (North)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-10	118-KE-2 Control Rod Storage Cave French Drain (South)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-11	118-KW-2 Control Rod Storage Cave French Drain (North)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-12	118-KW-2 Control Rod Storage Cave French Drain (South)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-39	118-KE-3 Filter Crib (site does not exist)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97
	100-K-44	100-K Exclusion Areas	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	100-K-52	Former 1706-KE Wet Fish Studies Laboratory (now a storage room)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	130-K-1	Former location of 1717-K Gasoline Storage Tank	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97. ~~UST Removed & Clean~~
	130-K-3	Former location of 182-K Diesel Oil Storage Tank	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-4	Howitzer Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-55	Paved area and collapsed structure	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
100-IU-2	600-121	Coal Ash Piles	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-122	White Bluffs Large Fenced Depression	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-123	Farm Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-126	Small Subsidence	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-130	American Pipe Company Facilities	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-135	Spare Parts Machine Shop Landfill	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 1/22/98.
	600-136	Insulation Warehouses	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-138	Fumigation Building	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-157	White Bluffs Concrete Foundation Pads	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-158	White Bluffs Ground Storage Tank and Booster Station	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-159	White Bluffs Bank Well	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-160	White Bluffs Irrigation Debris	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-161	White Bluffs Plumbing Debris	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-162	White Bluffs Pipe Debris	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.

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Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-IU-2 (cont.)	600-163	White Bluffs Pipe Testing Shop	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-164	White Bluffs Earth Berm and Trench	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-165	White Bluffs Valve Box/Subsidence	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-166	White Bluffs Subsidence	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-167	White Bluffs Cistern	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-170	White Bluffs Subsurface Concrete Structure	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-171	White Bluffs Townsite	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-172	White Bluffs French Drain or Dry Well	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-173	White Bluffs Domestic Debris Dump and Building Foundation	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-174	White Bluffs French Drain	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-175	Original Priest Rapids Ice House Drain Field	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-177	White Bluffs Pipe Bender and Equipment Dumping Area	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-179	Priest Rapids Ice House	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-180	White Bluffs Suspect Automotive Repair Shop	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-183	White Bluffs Burn Pile and Debris	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-184	White Bluffs Townsite Septic System	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-189	White Bluffs Warehouse Facility French Drains	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 1/22/98.
	600-193	White Bluffs Gas Station	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-194	White Bluffs Main Pipe Fabrication Shop	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-195	White Bluffs Townsite Electrical Substation	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-196	White Bluffs Farm Dump Site and Partially Backfilled Pit	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-198	White Bluffs River Bank Concrete Structure	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-199	White Bluffs Ash Covered Concrete Pad	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 3/11/98.
	600-200	Priest Rapids Ice House Septic Tank	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-203	White Bluffs French Drains	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-209	White Bluffs Excess Railroad Tie Materials	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
100-IU-6	600-20	Tank Cleaning Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-24	West P-11, Anti-Aircraft Artillery Compound	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-26	Hanford Townsite Burn Pile	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.

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Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-IU-6 (cont.)	600-27	Abandoned monitoring well; Well DC-6; Well 699-50-18C	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97.
	600-50	Hanford construction camp coal yard (101 Building)	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97. Coal ash site.
	600-168	Buckholdt Ranch Toilet Pits, Merriford Ranch Toilet Pits	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-169	Hanford Construction Camp Trenches	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-185	Hanford Construction Camp Honey Dump Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-192	Hanford Construction Camp Fumigation Chamber	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	600-206	101 Building Graphite Dump Site	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97..
	600-207	Hanford Construction Camp Powerhouse Ash Pile	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/6/97. Coal ash site.
	UPR-600-18	Tank Truck Gasoline Spill; UN-600-18	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
	UPR-600-19	Former site of Lime Sulfur Barrel; removed.	Rejected	N	Rejected	EPA & RL concurred on "Rejection" 10/1/97.
SITES REGULATED UNDER OTHER AUTHORITIES						
100-BC-1	100-B-2	181-B Backwash Trench. Facility in use.	Accepted	N	Regulated under other authorities[1]	Under authority of Site Infrastructure Division, EM-70.
	600-67	Bruggemann's Fruit Storage Warehouse	Accepted	N	Regulated under other authorities[1]	Underground storage tank for diesel fuel.
	1607-B1 (124-B-1)	Septic Tank System for Patrol Change Room and Fire Station	Accepted	N	Regulated under other authorities[1]	Septic system; close under WAC 247-272-18501
	1607-B3 (124-B-3)	Septic Tank System for 184-B pumphouse	Accepted	N	Regulated under other authorities[1]	Pumped dry and demolished in 1987.
	1607-B4 (124-B-6)	Septic Tank System for 151-B electrical distribution facility.	Accepted	N	Regulated under other authorities[1]	Under authority of Site Infrastructure Division, EM-70.
	1607-B5 (124-B-4)	Septic Tank System for 181-BC river pumphouse. Active facility.	Accepted	N	Regulated under other authorities[1]	Under authority of Site Infrastructure Division, EM-70.
	1607-B6 (124-B-5)	Septic Tank System for 182-B pump station and headhouse.	Accepted	N	Regulated under other authorities[1]	Under authority of Site Infrastructure Division, EM-70.
100-DR-1	100-D-9	Former location of 184-DA boiler house fuel oil tanks	Accepted	N	Regulated under other authorities[1]	Tanks moved during D&D of 184-DA boiler house.
100-DR-2	100-D-14	Septic Tank for temporary construction badgehouse.	Accepted	N	Regulated under other authorities[1]	Septic system; close under WAC 247-272-18501.
	1607-D1 (124-D-1)	Septic Tank and Drain Field for the Badgehouse / Fire Headquarters	Accepted	N	Regulated under other authorities[1]	Septic system; close under WAC 247-272-18501.
	1607-D3	Septic Tank and Drain Field for 151-D Electrical Substation.	Accepted	N	Regulated under other authorities[1]	Septic system; close under WAC 247-272-18501.
100-HR-1	1607-H3 (124-H-3)	Septic Tank and Drain Field for badgehouse and offices.	Accepted	N	Regulated under other authorities[1]	Septic system; close under WAC 247-272-18501.
100-HR-2	600-152	Military Septic Tanks	Accepted	N	Regulated under other authorities[1]	Under authority of DOE Site Infrastructure Division, EM-70.
100-KR-2	100-K-50	Active Facility; Sanitary Sewer System Holding Tank	Accepted	N	Regulated under other authorities[1]	Under Authority of DOE Spent Fuels Division, EM-60.
	100-K-51	RCRA 90-day waste accumulation area	Accepted	N	Regulated under other authorities[1]	Under Authority of DOE Spent Fuels Division, EM-60.
	126-K-1	100-K Demolition Inert Landfill	Accepted	N	Regulated under other authorities[1]	Solid waste site; inert landfill.
	1607-K1 (124-K-1)	Active Septic Tank and Drain Field for badgehouse; change room	Accepted	N	Regulated under other authorities[1]	Under Authority of DOE Spent Fuels Division, EM-60.
	1607-K2	Active Septic Tank and Drain Field for 183-KE Water Treatment Plant	Accepted	N	Regulated under other authorities[1]	Under Authority of DOE Spent Fuels Division, EM-60.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-KR-2 (cont.)	1607-K3	Inactive Septic Tank and Drain Field	Accepted	N	Regulated under other authorities[1]	FDH Responsibility.
	1607-K4 (124-K-2)	Active Septic Tank and Drain Field for offices and maintenance shop	Accepted	N	Regulated under other authorities[1]	Under Authority of DOE Spent Fuels Division, EM-60.
	1607-K5	Active Septic Tank and Drain Field for lab and KE Reactor Bldg.	Accepted	N	Regulated under other authorities[1]	Under Authority of DOE Spent Fuels Division, EM-60.
	1607-K6	Active Septic Tank and Drain Field for KW Reactor Bldg.	Accepted	N	Regulated under other authorities[1]	Under Authority of DOE Spent Fuels Division, EM-60.
100-IU-2	600-182	White Bluffs Asbestos Pipe Lagging and Excess Piping	Accepted	N	Regulated under other authorities[1]	Possible asbestos contamination.
	600-191	White Bluffs Pre-MED Community Dump Site 2	Accepted	N	Regulated under other authorities[1]	Oil products contamination.
100-IU-6	600-178	213-J and 213-K Guard House Toilet Pit	Accepted	N	Regulated under other authorities[1]	Reclassify as rejected. Toilet pit.
	600-186	Hanford Construction Camp Septic Tanks and Sewage	Accepted	N	Regulated under other authorities[1]	Sanitary waste dump site.
	600-213	Hanford Airport Underground Fuel Storage Tanks	Accepted	N	Regulated under other authorities[1]	Tanks have not been found.
RCRA TSD UNITS						
100-DR-1	120-D-1	100-D Ponds	Accepted	N	RCRA TSD Unit	RCRA Permit Mod.
100-DR-2	122-DR-1	105-DR Large Sodium Fire Facility	Accepted	N	RCRA TSD Unit	Covered by RCRA Permit Modification.
100-HR-1	116-H-6	183-H Solar Evaporation Basins	Accepted	N	RCRA TSD Unit	Covered by RCRA Permit Modification.
100-KR-2	116-KE-6A	1706-KE Condensate Collection Tank	Accepted	N	RCRA TSD Unit	RCRA TSD facility. Under authority of EM-30/EM-65.
	116-KE-6B	1706-KE Evaporation Tank	Accepted	N	RCRA TSD Unit	RCRA TSD facility. Under authority of EM-30/EM-65.
	116-KE-6C	1706-KE Waste Accumulation Tank	Accepted	N	RCRA TSD Unit	RCRA TSD facility. Under authority of EM-30/EM-65.
	116-KE-6D	1706-KE Ion Exchange Column	Accepted	N	RCRA TSD Unit	RCRA TSD facility. Under authority of EM-30/EM-65.
BURIAL GROUNDS						
100-BC-1	118-B-5	Ball 3X Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-B-7	111-B Solid Waste Burial Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-B-10	115-B/C Caisson Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
100-BC-2	118-B-1	105-B Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-B-2	Construction Burial Ground No. 1	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-B-3	Construction Burial Ground No. 2	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-B-4	105-B Spacer Burial Ground; 105-B Dummy Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-B-6	108-B Solid Waste Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-C-1	105-C Burial Ground; 105-C Solid Waste Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-C-2	105-C Ball 3X Storage Tank	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	600-33	105-C Reactor Test Loop Burial Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
100-DR-1	100-D-5	Undocumented waste site near 103-D	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-6 (100-D-42)	Burial Ground 4D (118-D-4D); Buried VSR Thimble Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-32	Minor Construction Burial Ground #6	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-DR-1 (cont.)	100-D-33	Minor Construction Burial Ground #4	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-35	Minor Construction Burial Ground #1	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-41	Minor Construction Burial Ground #5; Burial Ground 18; 118-D-18	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-45	Burial Ground 4B (118-D-4B); Buried VSR Thimble Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	126-D-2	184-D Coal Pit/Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
100-DR-2	100-D-40	Minor Construction Burial Ground #5 pit	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-43	Burial Ground 4C (118-D-4C); Buried VSR Thimble Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-46	Burial Ground 4A (118-D-4A)	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	100-D-47	Construction Burial Ground 4E (118-D-4E)	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-D-1	100-D Burial Ground No. 1	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-D-2	100-D Burial Ground No. 2	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-D-3	100-D Burial Ground No. 3	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-D-4	Construction Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-D-5	Ball 3X Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-DR-1	105-DR Gas Loop Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	126-DR-1	190-DR Clearwell Tank Pit	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
100-FR-2	100-F-20	PNL Parallel Pits	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-1	Burial Ground No. 1	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-2	Burial Ground No. 2	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-3	Burial Ground No. 3	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-5	PNL Sawdust Pit	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-6	PNL Solid Waste Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-7	100-F Miscellaneous Hardware Storage Vault	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-F-9	PNL Rad Site	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
100-HR-2	118-H-1	100-H Burial Ground No. 1	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-H-2	100-H Burial Ground No. 2; H-1 Test Loop Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-H-3	Construction Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-H-4	Ball 3X Burial Ground	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-H-5	105-H Thimble Pit	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
100-KR-2	100-K-2	Sludge Burial Ground (alias 118-K-2)	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.
	118-K-1	100-K Burial Ground (118-K)	Accepted	Y	Burial Ground[3]	Burial Grounds Task Team.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
FACILITIES FOR D&D						
100-BC-1	118-B-8	105-B Reactor Building	Accepted	N	Facility for D&D[4]	Proposed museum site.
	118-B-9	104-B2 Storage Building	Accepted	N	Facility for D&D[4]	Aboveground facility, intact building.
	126-B-2	183-B Clearwells. Intact facility. Contains no waste	Accepted	N	Facility for D&D[4]	Intact facility; contains no waste.
	132-B-2	116-B Reactor Exhaust Stack	Accepted	N	Facility for D&D[4]	Aboveground facility; intact reactor exhaust stack.
100-BC-2	118-C-3	105-C Reactor Building	Accepted	N	Facility for D&D[4]	Being demolished to put reactor in interim safe storage.
	118-C-4	105-C Horizontal Control Rod Storage Cave	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
100-DR-1	118-D-6	105-D Reactor Building	Accepted	N	Facility for D&D[4]	May be demolished to put reactor in interim safe storage.
	132-D-4	116-D Reactor Exhaust Stack	Accepted	N	Facility for D&D[4]	Aboveground facility; intact reactor exhaust stack.
100-DR-2	100-D-53	117-DR Filter Building	Accepted	N	Facility for D&D[4]	Covered by RCRA Permit Modification.
	118-DR-2	105-DR Reactor Building	Accepted	N	Facility for D&D[4]	May be demolished to put reactor in interim safe storage.
	132-DR-2	116-DR Reactor Exhaust Stack	Accepted	N	Facility for D&D[4]	Aboveground facility; intact reactor exhaust stack.
100-FR-1	118-F-8	105-F Reactor Building	Accepted	N	Facility for D&D[4]	May be demolished to put reactor in interim safe storage.
100-HR-1	118-H-6	105-H Reactor Building	Accepted	N	Facility for D&D[4]	May be demolished to put reactor in interim safe storage.
100-HR-2	100-H-1	105-H Rod Cave	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
100-KR-2	100-K-3	1706-KE Fish Pond Valve Pit and Heat Exchanger Pit	Accepted	N	Facility for D&D[4]	Suspected soil contamination beneath an intact facility.
	100-K-4	1706-KE Fish Pond	Accepted	N	Facility for D&D[4]	Suspected soil contamination beneath an intact facility.
	100-K-5	1705-KE French Drain	Accepted	N	Facility for D&D[4]	Suspected soil contamination beneath an intact facility.
	100-K-6	105-KE Vacuum Pit, Cyclone Separator	Accepted	N	Facility for D&D[4]	Contaminated belowground structure; intact.
	100-K-15	183-KW Liquid Alum Storage Tank (West)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-16	183-KW Liquid Alum Storage Tank (East)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-19	183-KW Caustic Soda Storage Tank	Accepted	N	Facility for D&D[4]	Intact facility.
	100-K-20	183-KW Sodium Silicate Tank (West)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-21	183-KW Sodium Silicate Tank (East)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-22	183-KE Sodium Silicate Tank (West)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-23	183-KE Sodium Silicate Tank (East)	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-24	183-KW Bauxite Tank	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-25	183-KE Caustic Neutralization Pit	Accepted	N	Facility for D&D[4]	Part of an intact facility.
	100-K-27	183-KE Caustic Soda Storage Tank	Accepted	N	Facility for D&D[4]	Intact facility.
	100-K-28	183-KE Bauxite Tank	Rejected	N	Facility for D&D[4]	Intact facility.
	100-K-37	1706KE Sulfuric Acid Tank	Accepted	N	Facility for D&D[4]	Under Authority of DOE Spent Fuels Division, EM-60.

Table NC-2. Remaining Sites by Waste Site Category. (17 Sheets)

Operable Unit	WIDS Site Code	Waste Site Name	WIDS Classification[1]	In Updated TPA App. C?[2]	Remaining Sites Category	Comments
100-KR-2 (cont.)	100-K-38	1706KE Caustic Tank	Accepted	N	Facility for D&D[4]	Under Authority of DOE Spent Fuels Division, EM-60.
	116-KE-5	150-KE Heat Recovery Station	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	116-KW-4	150-KW Heat Recovery Station	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	118-KE-1	105-KE Reactor Building	Accepted	N	Facility for D&D[4]	Key facility per Section 8 of the Tri-Party Agreement.
	118-KE-2	105-KE Horizontal Control Rod Storage Cave	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	118-KW-1	105-KW Reactor Building	Accepted	N	Facility for D&D[4]	Key facility per Section 8 of the Tri-Party Agreement.
	118-KW-2	105-KW Horizontal Control Rod Storage Cave	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	120-KE-4	183-KE1 Sulfuric Acid Storage Tank	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	120-KE-5	183-KE2 Sulfuric Acid Storage Tank	Rejected	N	Facility for D&D[4]	Aboveground facility; intact.
	120-KE-8	165-KE Brine Pit	Accepted	N	Facility for D&D[4]	Under Authority of DOE Spent Fuels Division, EM-60.
	120-KE-9	183-KE Brine Pit	Accepted	N	Facility for D&D[4]	Intact belowground facility.
	120-KW-3	183-KW1 Sulfuric Acid Storage Tank	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	120-KW-4	183-KW2 Sulfuric Acid Storage Tank	Accepted	N	Facility for D&D[4]	Aboveground facility; intact.
	120-KW-6	165-KW Brine Pit	Accepted	N	Facility for D&D[4]	Intact belowground facility.
	120-KW-7	183-KW Brine Pit	Accepted	N	Facility for D&D[4]	Intact belowground facility.
	126-KE-2	183-KE Liquid Alum Storage Tank #2	Accepted	N	Facility for D&D[4]	Under Authority of DOE Spent Fuels Division, EM-60.
	126-KE-3	183-KE Liquid Alum Storage Tank #1	Rejected	N	Facility for D&D[4]	Under Authority of DOE Spent Fuels Division, EM-60.
	130-KE-2	166-KE Oil Storage Tank. Large concrete storage tank	Accepted	N	Facility for D&D[4]	UST; Close under WAC 173-360.
	130-KW-2	166-KW Oil Storage Tank. Large concrete storage tank	Accepted	N	Facility for D&D[4]	UST; Close under WAC 173-360.
	132-KE-1	116-KE Reactor Exhaust Stack	Accepted	N	Facility for D&D[4]	Aboveground facility; intact reactor exhaust stack.
	132-KW-1	116-KW Reactor Exhaust Stack	Accepted	N	Facility for D&D[4]	Aboveground facility; intact reactor exhaust stack.

[1]WIDS classifications and the disposition of waste sites regulated under other authorities than CERCLA are described in Tri-Party Agreement Handbook Management Guideline MP-14, "Maintenance of the Waste Site Information Data" (DOE-RL 1997).

[2]See *Federal Facility Agreement and Consent Order* Change Control Form No. C-98-01 (submitted for approval during September 1998).

[3]The Tri-Parties have agreed that 100 Area burial grounds will be addressed in separate CERCLA decision documents, as discussed in Section N1.0.

[4]The Tri-Parties have agreed that D&D of facilities will be addressed in separate CERCLA decision documents.

[5]Application of the Remove/Treat/Dispose (RTD) standard remedy and Confirmation Sampling (CS) to 100 Area Remaining Sites is discussed in the draft *Proposed Plan for Interim Remedial Actions at the 100 Area Remaining Sites*, DOE/RL-97-83.

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