RCRA Facility Investigation – Remedial Investigation/ Corrective Measures Study – Feasibility Study Report for the Rocky Flats Environmental Technology Site

Section 1.0
Site Background

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for the U.S. Department of Energy

June 2006

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1.0 SITE BACKGROUND

This Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Remedial Investigation/Feasibility Study (RI/FS) Report for the Rocky Flats Environmental Technology Site (RFETS or site) was prepared in accordance with the Final Work Plan for the Development of the Remedial Investigation and Feasibility Study Report (RI/FS Work Plan) (DOE 2002a). Because remedial activities at RFETS are also being conducted under the Resource Conservation and Recovery Act (RCRA) and the Colorado Hazardous Waste Act (CHWA), this RI/FS Report also meets RCRA/CHWA requirements for a RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) report. For simplicity, this report is hereinafter referred to as the RI/FS Report. The RI/FS Report compiles the completed Technical Memoranda, Summary Reports, and results of the Comprehensive Risk Assessment (CRA).[1] This completed Report is the final task, Task 15, of the RI/FS Work Plan.

The purpose of the RI/FS Report is to present the findings of the field investigation, including the nature and extent of contamination, contaminant fate and transport, and CRA results, as well as the development, screening, and detailed analysis of alternatives.

Upon approval by the Colorado Department of Public Health and Environment (CDPHE) and the U.S. Environmental Protection Agency (EPA), the RI/FS Report will be the basis for development of a Proposed Plan that describes the preferred RCRA/CHWA and CERCLA remedy for RFETS. The Proposed Plan is the basis for the final Corrective Action Decision/Record of Decision (CAD/ROD). See Section 1.4 for a discussion on how the RI/FS Report is organized in relation to RCRA/CHWA and CERCLA criteria and the regulatory agency-approved RI/FS Work Plan.

The RI/FS Report follows CDPHE's Corrective Action Guidance Document (CDPHE 2002) and EPA's Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (EPA 1988).

1.1 Rocky Flats Environmental Technology Site

The site has been in existence since 1951. A brief description of the site, the historical RFETS mission, inclusion on the CERCLA National Priorities List (NPL), the RCRA/CHWA permit history, and the site future use are presented below.

1.1.1 Site History

The United States, through the Atomic Energy Commission, acquired the land for RFETS in several phases. RFETS is located approximately 16 miles northwest of Denver, Colorado, and approximately 10 miles south of Boulder, Colorado (Figure 1.1), and it occupies approximately 10 square miles of Sections 1 through 4 and 8 through 15 of Township 2 South, Range 70 West of the 6th Principal Meridian. RFETS is generally

[1] Results of the CRA are located in Appendix A, Volumes 1 through 15.

bound by State Highway 128 to the north; Jefferson County Highway 17, also known as Indiana Street, to the east; and State Highway 93, which is approximately 0.25 miles from the site's western boundary. To the south agricultural and industrial properties lie between RFETS and State Highway 72 (EPA 1997).

Approximately 2,519 acres were acquired in 1951 and approximately 4,027 acres were added in 1974 and 1975. This additional acreage provided an additional security buffer area around the approximately 300-acre Industrial Area (IA) near the center of the site, resulting in the 6,546-acre property (USFWS 2004).[2]

Land use within 10 miles of RFETS includes residential, agricultural, industrial, parks and open space, vacant, and institutional classifications. Most residential use is located northeast, east, and southeast of RFETS. Much of the vacant land around RFETS is rangeland. Local government-owned open space lies directly north, west, and east of RFETS (EPA 1997).

Main fabrication and processing facilities were located near the center of RFETS in the approximately 300-acre IA. The remainder of the site contained limited support facilities and served as a Buffer Zone (BZ) to the main production areas. When the United States acquired the RFETS land, it also acquired the surface rights from the landowners, but not the subsurface mineral rights. Approximately 800 acres in the western portion of the BZ are currently permitted for surface gravel mining, which is ongoing. Mined property must be reclaimed in accordance with permit requirements. Other property rights, such as utility easements and water conveyances, also exist at RFETS.

Additional information regarding physical characteristics, demography, third-party property rights, and surrounding land use is provided in Section 2.0.

1.1.2 Site Mission

RFETS was part of the United States' nationwide nuclear weapons complex and its mission was to fabricate plutonium pits and other key components making up the triggers for nuclear weapons. A description of the industrial processes and key manufacturing buildings of this facility, known originally as the Rocky Flats Plant, is contained in Historic American Engineering Record (HAER) CO-83 (HAER 1998).[3]

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[2] In 1995, control and jurisdiction of 234 acres (located in the northwestern corner of RFETS) were transferred to the DOE Golden Field Office to be used as a scientific wind turbine testing facility for development of alternative energies (DOE 1998a). This area is the National Wind Technology Center. Pursuant to the 2002 National Defense Authorization Act, an additional 25 acres were transferred from RFETS to the National Wind Technology Center (EPA 2003).

[3] The National Park Service, Library of Congress, and American Society of Civil Engineers formed the HAER program in 1969 to document nationally and regionally significant engineering and industrial sites. HAER documentation, in the form of measured and interpretive drawings, large format photographs, and written histories, is archivally preserved in the Prints and Photographs Division of the Library of Congress, where it is readily available to the public. HEAR CO-83 is available through the Library of Congress website, http://memory.loc.gov. See also DOE 1998a.

The Atomic Energy Commission and its successor agency, the Energy Research and Development Administration, had jurisdiction and control of RFETS from 1951 to the end of 1974 and from 1975 to 1977, respectively. Since 1977 RFETS has been under the jurisdiction and control of the U.S. Department of Energy (DOE), pursuant to the authority of the Atomic Energy Act of 1954, 42 United States Code (USC) §§ 2011, et seq. as amended (DOE 1994a).

Since 1951 four companies have managed and operated RFETS under contracts with DOE or its predecessor agencies. Dow Chemical Company was the contractor prior to July 1975. Rockwell International Company (Rockwell) was the contractor from July 1, 1975, until December 31, 1989. EG&G Rocky Flats, Inc. was the contractor from January 1, 1990, until June 30, 1995. Kaiser-Hill Company, LLC (K-H) has been the contractor since July 1, 1995 (DOE 1998a). It is anticipated that K-H's contract scope of work will be completed in Fiscal Year (FY) 2006.

In February 1991, DOE introduced a plan to realign the Nation's nuclear weapons production program. The Secretary of Energy announced in a February 1992 Report to Congress that as part of the realignment RFETS would no longer have a nuclear production mission. DOE's mission at RFETS is currently the safe deactivation of nuclear production facilities; decontamination, decommissioning, and demolition of buildings and infrastructure; cleanup; and closure (DOE 1998a).

To complete this mission the following major accomplishments were achieved:

- All special nuclear materials were packaged and shipped to other DOE facilities, including:
  - Approximately 21 tons of weapons-grade material; and
  - Approximately 100 tons of plutonium residues and 30,000 liters of plutonium and enriched uranium solutions, which were processed prior to shipment to meet strict transportation and receiving site requirements.
- Over 800 structures were cleaned up as necessary and removed. This included the safe decommissioning, decontamination, and demolition of five major plutonium processing and fabrication facilities and two major uranium fabrication facilities totaling over 1,000,000 square feet (ft^2).
- A total of 1,457 gloveboxes, many of which were highly internally contaminated, underwent deactivation, decontamination, removal, and size reduction as required and were disposed of off site. Glovebox sizes ranged up to the size of an 18-wheel tractor-trailer vehicle.
- A total of 690 tanks, many of which were highly internally contaminated, underwent deactivation, decontamination, removal, and size reduction as required and were disposed of off site. Tank sizes ranged up to three stories high with capacities up to 30,000 gallons.
- Four hundred twenty-one historical Industrial Hazardous Substance Sites (IHSSs), Potential Areas of Concern (PACs), Under Building Contamination (UBC) Sites,

and Potential Incidents of Concern (PICs) were thoroughly investigated and dispositioned through accelerated remedial actions or by determining that no accelerated action is required.

- Covers were installed on the two RFETS historic landfills, the Present Landfill and the Original Landfill (historical IHSSs 114 and 115, respectively) to meet final closure performance criteria.
- Three contaminated groundwater treatment systems and a seep collection and passive aeration treatment system were installed and continue to operate. (An Operable Unit [OU] 1 groundwater collection system was also installed and subsequently removed.) Over 11 million gallons of groundwater and over 5 million gallons of seep water have been successfully treated. See Figure 1.2 for the location of these systems. These systems and contaminants removed are:
  - The Solar Ponds Plume Treatment System (SPPTS), which collects and passively treats groundwater to remove nitrates and uranium;
  - The East Trenches Plume Treatment System (ETPTS), which collects and passively treats groundwater to remove volatile organic compounds (VOCs), primarily carbon tetrachloride, tetrachloroethene, and trichloroethene and their degradation products;
  - The Mound Site Plume Treatment System (MSPTS), which collects and passively treats groundwater to remove VOCs, primarily carbon tetrachloride, tetrachloroethene, and trichloroethene and their degradation products; and
  - The Present Landfill Seep Treatment System, which passively treats groundwater collected primarily from the perimeter of the Present Landfill to remove VOCs, primarily benzene.
- All waste from these cleanup and closure activities, including previously generated process waste and contaminated excavated soils, were managed, processed, packaged to meet strict transport requirements, and shipped off site. This includes:
  - Over 15,000 cubic meters (m^3) of transuranic (TRU) radioactive waste, including wastes classified as transuranic mixed (TRM) waste (radioactive waste mixed with hazardous waste), were shipped to DOE's Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico.
  - Over 500,000 m^3 of low-level radioactive waste (LLW), including low-level mixed waste (LLMW), were shipped to DOE and commercial permitted facilities.
  - Over 820,000 m^3 of sanitary waste, which includes building demolition debris and other waste including soils from cleanup that are not regulated as radioactive or hazardous waste, were shipped to commercial permitted facilities.

– Over 4,300 m^3 of hazardous waste, which includes building demolition debris and other waste including soils from cleanup classified as hazardous waste, were shipped to commercial permitted facilities.

As described in more detail in this section, these major accomplishments were achieved by or in coordination with the conduct of accelerated CERCLA and RCRA/CHWA remedial actions. To fully complete the cleanup and closure mission, a final CERCLA and RCRA/CHWA remedial decision is required based on levels of hazardous substances remaining after completion of the foregoing activities and accelerated actions.

1.1.3 The Rocky Flats National Wildlife Refuge Act

Because most of the RFETS land has remained relatively undisturbed since 1951, preservation and diversity of plants and animals at RFETS is unique in this area of the Front Range. RFETS provides habitat for many wildlife species, including the Preble's meadow jumping mouse (PMJM), which is federally protected as a threatened species, and several rare plant communities.

The Rocky Flats National Wildlife Refuge Act of 2001 (Public Law 107-107, Subtitle F, 16 USC 668dd) (Refuge Act)[4] provides that future ownership and management of RFETS shall be retained by the United States. Under the Refuge Act, upon completion of cleanup and closure of RFETS, the Secretary of Energy shall transfer administrative jurisdiction over certain RFETS lands to the Secretary of the Interior for the purposes of establishing the Rocky Flats National Wildlife Refuge (Refuge). The U.S. Fish and Wildlife Service (USFWS) is the Department of Interior agency responsible for wildlife refuge management. Under the Refuge Act, the Secretary of Energy will retain administrative jurisdiction over those RFETS engineered structures used for carrying out a response action and any lands or facilities related to a response action or other actions to be carried out by the Secretary of Energy at RFETS. The final delineation of lands to be transferred to the Secretary of the Interior will be identified in the CAD/ROD.

A Final Comprehensive Conservation Plan and Environmental Impact Statement (CCP/EIS) related to the establishment of the Refuge was prepared by USFWS, in consultation with the public and the local communities as required by the Refuge Act.[5] The Refuge Act also requires the Secretary of the Interior to provide a report to Congress on the impact of any existing property rights, including any mineral rights, on management of the Refuge, and identify strategies for resolving and mitigating the impacts. The CCP/EIS contains extensive information regarding the attributes and the

[4] See the Refuge Act for its specific requirements. This discussion is intended only as a brief overview of the Refuge Act requirements in relation to the future use of RFETS as a Refuge.

[5] The CCP/EIS also briefly discusses existing property rights. In accordance with the CCP/EIS preferred alternative, the Refuge will include approximately 16 miles of trails, a seasonally staffed visitor contact station, trailheads with parking, and developed overlooks (USFWS 2004). Also see the website at http://rockyflats.fws.gov for information related to the CCP/EIS.

plant and animal resources of the approximately 6,240-acre RFETS property[6] in relation to its designation as a National Wildlife Refuge.

1.1.4 National Priority List and Hazardous Waste Activities

Because the United States restricted information regarding the production of nuclear weapons components, and because access to RFETS was strictly controlled, the specific processes and materials used at RFETS were not publicly known for many years. Fires in plutonium processing buildings in 1957 and 1969 and public activism in opposition of the Nation's nuclear weapons production programs in the 1970s and 1980s resulted in more public and federal and state environmental regulatory agency scrutiny of RFETS.

As new environmental laws were enacted during this period, information about hazardous substances and hazardous wastes at RFETS led to remedial investigations, beginning in the 1980s, of possible releases of these substances to the environment. The conduct of CERCLA response actions and RCRA/CHWA corrective and closure actions has thus been a part of DOE's mission at RFETS since the 1980s.

A multiyear study by CDPHE's Health Advisory Panel beginning in 1989 reviewed the types and quantities of chemicals historically used at RFETS to determine potential off-site doses to the public from RFETS operations. This study concluded that 7 solvents, 10 metals (including certain radionuclides), and 8 inorganic chemicals were materials of concern (CDH 1992).

Results of early remedial investigations indicated operations at RFETS resulted in the release or threatened release of materials defined as hazardous substances, contaminants, and pollutants by CERCLA, 42 USC §§ 9601, et seq. as amended. Investigations indicated elevated levels of hazardous substances, including uranium, plutonium, other metals of concern, hazardous wastes, and hazardous waste constituents (hereinafter referred to as "hazardous substances"), were released to the environment.

RFETS was proposed for inclusion on the CERCLA NPL on October 15, 1984 (49 Federal Register [FR] 40320, October 15, 1984), and the listing became final on September 21, 1989 (54 FR 41015, October 4, 1989). The area composing the NPL listing included RFETS and land adjacent, or off site, from RFETS. Thus, the NPL Site was not identified as coincident with the RFETS property boundaries, and investigations were needed to determine the extent of hazardous substance releases that required CERCLA response actions. Historically the terms "RFETS" and "Site" have been used to denote both the RFETS property and the geographical extent of the NPL Site. In this RI/FS Report, "Site" refers to the NPL Site and "RFETS" or "site" refers to the property owned by the United States. In March 2003, EPA determined that the 259-acre National Wind Technology Center was not part of the NPL Site (EPA 2003).

[6] The RFETS acreage has been listed in a variety of historical documents as ranging from approximately 6,200 to approximately 6,500 acres, which generally conveys its size. The 6,240-acre figure is from the CCP/EIS for the purposes of Refuge planning, based upon review of acquisition and transfer records and previous land surveys for portions of the property. This figure may change slightly based on future land surveys or other information gathered to implement the Refuge Act.

RFETS operations also resulted in the generation, disposal, and/or release of materials regulated as hazardous wastes and hazardous waste constituents (which are also CERCLA hazardous substances) pursuant to RCRA, 42 USC §§ 6901, et seq. as amended and CHWA, Colorado Revised Statutes (CRS), §§ 25-15-301, et seq. after the dates that RCRA and CHWA requirements, including regulations promulgated thereunder, became applicable to RFETS.

Consistent with Section 3010 of RCRA, 42 USC § 6930, DOE and Rockwell notified EPA of hazardous waste activity at the Rocky Flats Plant on or about August 18, 1980. In a RCRA Part A Permit application submittal in November 1980, DOE and Rockwell identified themselves as generators of hazardous waste at the Rocky Flats Plant, and the Rocky Flats Plant as a treatment, storage, and/or disposal facility. DOE and Rockwell also identified themselves as handling several hazardous wastes at the Rocky Flats Plant (Rockwell 1980).

On November 1, 1985, DOE and Rockwell filed RCRA and CHWA Part A and B Hazardous Waste Permit applications with both EPA and the Colorado Department of Health (CDH),[7] identifying certain generated hazardous waste streams and waste management processes (K-H 2004).

In 1989, the Federal Bureau of Investigation and EPA agents executed a search warrant to confirm alleged violations of federal environmental laws and regulations at RFETS. Following the search, the U.S. Department of Justice indicted Rockwell, the management and operating contractor at the time of the search, for commission of environmental crimes at RFETS. In 1992, Rockwell's plea of guilty for environmental crimes was accepted in District Court, and Rockwell consequently agreed to pay a fine of $18.5 million (DOE 1998a).

After several revisions to the RCRA/CHWA permit application, CDPHE issued the CHWA Permit on September 30, 1991, for a number of hazardous waste management units at RFETS. Since then, the Permit has been modified to add or remove units, and it has also been periodically renewed as required by CHWA regulations (K-H 2004).

1.2 Site Investigations and Cleanup History

Three successive environmental compliance agreements/orders have provided a regulatory framework for the cleanup of RFETS since the 1980s. The first was in 1986, prior to the NPL listing in 1989; the second was in 1991; and the third was in 1996. These agreements/orders resulted in reordering and restructuring the investigation and cleanup priorities. A summary of the various investigations and cleanup history of RFETS is provided below.

[7] CDPHE was created on July 1, 1994, and assumed the statutory authority of CDH to regulate hazardous waste pursuant to the CHWA (CRS § 25-1-101.5.) CDH was eliminated as a state executive agency. For simplicity, CDH and CDPHE are both hereinafter referred to as "CDPHE."

1.2.1 Regulatory Framework

This section provides a summary of the three environmental compliance agreements/orders regarding cleanup of RFETS, as well as a brief description of the three environmental permits issued to DOE and its contractor.

1.2.1.1 Compliance Agreement (1986)

On July 31, 1986, DOE, CDPHE, and EPA entered into a Compliance Agreement (1986 Compliance Agreement, CERCLA VIII-86-08 and RCRA VIII 86-06) that defined roles and established milestones for major environmental operations and response action investigations for the Site. The 1986 Compliance Agreement established requirements for compliance with CERCLA. Through this action, the 1986 Compliance Agreement established a specific strategy, which allowed for management of high-priority past disposal areas and low-priority areas at the Site.

The 1986 Compliance Agreement also established roles and requirements for compliance with RCRA and CHWA through compliance with interim status requirements and submittal of required permit applications and closure plans. Through the 27 specific tasks identified in the five schedules included in the 1986 Compliance Agreement, DOE and Rockwell identified over 2,000 waste generation points and 178 Solid Waste Management Units (SWMUs) and RCRA/CHWA-regulated closure sites. The SWMU terminology is a RCRA designation consisting of inactive waste disposal sites, accidentally contaminated sites, and sites found to pose potential environmental concern due to past or current waste management practices. SWMUs were initially identified in 1985 in the Draft Comprehensive Environmental Assessment and Response Program (CEARP) Phase I: Installation Assessment (DOE 1986). The study consisted of record searches, an open literature survey, inspections, and interviews with RFETS employees.

1.2.1.2 IAG (1991)

The 1986 Compliance Agreement did not reflect the requirements of the 1986 Superfund Amendments and Reauthorization Act, in particular the requirements governing federal facility NPL Sites pursuant to Section 120 of CERCLA. EPA's and CDPHE's priorities for investigation of the Site were also clarified based on increased knowledge of the Site gained from the ongoing investigation. The new priorities placed greater emphasis on OUs that, based on information available, were known to pose the greatest risk to humans and the environment through actual or potential contact with wastes or contaminated soil, air, or water. EPA and CDPHE established criteria reflecting priorities for addressing both human health and environmental issues. These factors necessitated revision of the 1986 Compliance Agreement in 1991.

On January 22, 1991, DOE, EPA, and CDPHE signed Federal Facility Agreement and Consent Order CERCLA VIII-91-03, RCRA (3008[h]) VIII-91-07), and State of Colorado Docket #91-01-22-01, referred to as the Rocky Flats Interagency Agreement (IAG). The IAG regulated and provided for enforcement of DOE's investigation, planning, and conduct of response and corrective actions at the Site. It also established a

comprehensive plan for integrating CERCLA and RCRA/CHWA requirements for these actions. The IAG divided the remedial activities into 16 OUs (Table 1.1). In the IAG the SWMUs were renamed IHSSs. IHSSs are specific locations within OUs where solid wastes, hazardous substances, pollutants, contaminants, hazardous wastes, or hazardous constituents may have been disposed or released into the environment within the Site at any time, irrespective of whether the location was intended for the management of these materials.

The 16 OUs were groupings of IHSSs into single management areas based on similarities of contaminants, geographical location, and possible interrelation of the IHSSs. Table 1.1 provides a summary description of each OU. EPA or CDPHE, or in some cases EPA and CDPHE jointly, was identified as the Lead Regulatory Agency (LRA) for each designated OU. The IAG also established a schedule including 221 milestones to guide and enforce activities related to these 16 OUs. The identified LRA had approval authority over DOE's remediation activities and compliance with the schedule and milestones for each OU.

During 1992 and into 1993, it became apparent that unrealistic schedule and cost assumptions would make it impossible for DOE to fully comply with the IAG schedules. DOE began missing milestones in March 1993, and the agency projected that a series of future milestones were likely to be missed. In early 1994, DOE proposed an agreement to toll the stipulated penalties associated with these milestones for a certain period. According to the terms of the Tolling Agreement, signed by the IAG Parties on July 7, 1994, DOE paid cash penalties to EPA and the State, and conducted Supplemental Environmental Projects, for a total value of $2.8 million. The agreement tolled stipulated penalties until January 31, 1995.

Because of these events and issues surrounding the scope of work for response actions at the Site given that the RFETS nuclear weapon component production mission had ended, beginning in mid-1994, DOE, CDPHE, and EPA began negotiations to substantially modify or replace the IAG. Subsequently, in light of negotiations toward a new agreement, EPA and CDPHE agreed not to assess further stipulated penalties for violations of the IAG milestones occurring after January 31, 1995.

DOE continued appropriate investigation and remediation work in the IAG OUs subject to LRA approval during this period.

1.2.1.3 RFCA (1996)

On July 19, 1996, DOE, EPA, and CDPHE signed Federal Facility Agreement and Consent Order CERCLA VIII-96-21, RCRA (3008[h]) VIII-96-01, and State of Colorado Docket #96-07-19-01, referred to as the Rocky Flats Cleanup Agreement (RFCA). RFCA terminated and replaced the IAG and has since served as the regulatory agreement to accomplish the required cleanup of radioactive and other hazardous substance contamination at and from RFETS.

RFCA expanded the cleanup scope to include disposition of all buildings, which were not covered in the IAG OUs, and changed the regulatory approach in several significant respects. It incorporated an unenforceable Preamble recitation of the objectives for eight topics that influenced cleanup decision making that were developed in consultation with the community and local governments, resulting in a Vision for the Site. The Vision was intended to provide a holistic view of key RFETS activities in relation to the required cleanup of the Site.

In addition, each objective included a description of the anticipated near-term and intermediate site conditions for the covered topic. Per the RFCA Preamble, Section B paragraph 9g, the Intermediate Site Condition is:

> *…the period of time during which all weapons useable fissile material, and transuranic wastes will be removed from RFETS. By the end of this period, none of these materials, nor the buildings that contained them, will remain. Also by the end of this period, all low-level, low-level mixed, hazardous, and solid wastes will have been shipped off-site, disposed, or stored in a retrievable and monitored manner to protect public health and the environment. Any remaining cleanup will be completed. Activities occurring in this period are anticipated to be completed about 12 to 20-25 years from now.*

The following descriptions of the summary objectives and intermediate site conditions are taken from Section B of the RFCA Preamble and are provided in italics. The status of each topic in relation to its anticipated intermediate site condition is also described.

1. Disposition of Weapons Useable Fissile Materials and TRU Wastes

   Summary: DOE will stabilize, consolidate, and temporarily store weapons useable fissile materials and transuranic wastes on-site for removal; ultimate removal of weapons useable fissile material is targeted for no later than 2015.

   Intermediate Site Condition: Weapons useable fissile materials are targeted for removal from RFETS by 2015. By the end of the Intermediate Site Condition, all transuranic waste will have been removed from RFETS.

   Status: All weapons useable fissile material was removed by 2003 and TRU waste removal for disposal at WIPP was completed in 2005.

2. On-Site and Off-Site Waste Management

   Summary: Waste management activities for low-level, low-level mixed, hazardous, and solid wastes will include a combination of on-site treatment, storage in a retrievable and monitored manner, disposal, and off-site removal. Low-level and low-level mixed wastes generated during cleanup will be stored in a safe, monitored and retrievable manner for near-term shipment off-site, long-term storage with

subsequent shipment off-site and/or long-term storage with subsequent disposal on-site of the remaining wastes.

Intermediate Site Condition: Waste materials that are to be removed will have been shipped off-site. Any necessary follow-up cleanup related to the former storage sites will have been completed. By the end of this period, decisions will have been made regarding stored material for its continued storage, treatment or disposal.

Status: No monitored retrievable storage is planned. All waste materials generated during the Project were shipped off site for disposition. Cleanup or closure of former storage sites was completed in October 2005. Whether any followup cleanup of environmental media is required is evaluated in the RI/FS.

3. Water Quality

Summary: At the completion of cleanup activities, all surface water on-site and all surface and ground water leaving RFETS will be of acceptable quality for all uses.

Intermediate Site Condition: By the time cleanup activities are completed, all on-site surface water and all surface water and ground water leaving RFETS will be of acceptable quality for all uses including domestic water supply. Ground water quality in the Outer Buffer Zone and off-site will support all uses. On-site ground water will not be used for any purpose unrelated to RFETS cleanup activities. Reliable monitoring and controls to protect water quality during storage of plutonium and other special nuclear material and wastes, and during storm events, will continue. To assure the above described water quality, long-term operation and maintenance of waste management and cleanup facilities will continue.

Status: All surface water and groundwater leaving RFETS boundaries currently meet this objective based on the results of routine, continuous, flow-paced surface water monitoring for radionuclides and historical, nonroutine monitoring of surface water and groundwater for a limited number of other analytes of interest (AOIs). Surface water downstream of the Woman Creek and Walnut Creek terminal ponds currently meets this objective and Colorado water quality standards based on the results of routine, continuous, flow-paced surface water monitoring for radionuclides and predischarge monitoring of the terminal ponds for radionuclides and a limited number of other AOIs. Completed accelerated actions have removed significant surface soil sources of surface water contamination and significant subsurface soil and nonaqueous phase liquid sources of groundwater contamination that contribute to surface water contamination. However, surface water sample results do not always meet Colorado surface water quality standards for some analytes at some on-site monitoring locations upstream of the terminal ponds. The SPPTS, ETPTS, MSPTS, and the Present Landfill seep collection and passive aeration treatment system were installed and continue to operate to reduce surface water contaminant loading from residual subsurface soil and groundwater contamination.

4. Cleanup Guidelines

Summary: Cleanup activities will be conducted in a manner that will:

- *reduce risk;*
- *be cost-effective;*
- *protect public health;*
- *protect reasonably foreseeable land and water uses;*
- *prevent adverse impacts to ecological resources, surface water, and ground water; and*
- *be consistent with a streamlined regulatory approach.*

Intermediate Site Condition: After off-site disposition of plutonium, other special nuclear material and transuranic wastes, the cleanup of the buildings that contained these materials, and of any residual waste from their shipment or storage, will be completed. Appropriate monitoring, operation and maintenance of any remaining treatment, storage, or disposal facilities will continue.

Status: Building cleanup and waste disposition is complete. Several areas containing wastes buried more than 30 years ago, two historical landfills with engineered covers meeting landfill closure criteria, and some infrastructure and building slabs/basement walls below 3 feet (ft) from the surface remain. Building structures that have residual contamination are 6 ft or more below the ground surface. Appropriate monitoring and operation and maintenance of the site has been identified and implemented. The "streamlined regulatory approach" is discussed further below.

5. Land Use

Summary: Cleanup decisions and activities are based on open space and limited industrial uses; the particular land use recommendations of the Future Site Use Working Group (FSUWG) are not precluded; specific future land uses and post-cleanup designations will be developed in consultation with local elected officials, local government managers, Rocky Flats Local Impacts Initiative (RFLII), CAB, other groups and citizens. The Parties recognize the legal authority of local government to regulate future land use at and near RFETS.

Intermediate Site Condition: At the beginning of this period, access to the Buffer Zone will continue to be controlled consistent with the safety and security needs of plutonium, other special nuclear material and transuranic wastes. After weapons useable fissile material and transuranic wastes are removed, DOE will work with local elected officials, local government managers, RFLII, CAB, other groups and citizens to determine the optimal use of the Buffer Zone. Any access controls and/or institutional controls that are necessary or appropriate for public health, environmental protection, ongoing monitoring and operation and maintenance activities, will continue.

Status: The future land use for RFETS is a National Wildlife Refuge (see Section 1.1.3).

6. Environmental Monitoring

   Summary: Environmental monitoring will be maintained for as long as necessary.

   Intermediate Site Condition: After plutonium, other special nuclear material and transuranic wastes are gone, the monitoring system will continue to address remaining waste management facilities and water quality needs. This monitoring system will remain in place for as long as necessary for the protection of public health, environment, and safety.

   Status: Environmental monitoring is conducted pursuant to the Integrated Monitoring Plan (IMP) established in accordance with RFCA. The IMP was first approved in 1997 and is reviewed annually and updated as needed (through FY 2003 reviews and any needed updates were performed quarterly). Reviews and updates are conducted in consultation with CDPHE, EPA, local cities staff, and other stakeholders. Consultative meetings were routinely held and quarterly monitoring information exchanges were conducted. These consultations considered monitoring results, the evolving nature of site condition, and changes to monitoring needs as cleanup progressed toward closure. City and other stakeholder participants included, but were not limited to, representatives of the City and County of Broomfield; the Cities of Arvada, Westminster, Northglenn, and Thornton; the Rocky Flats Coalition of Local Governments (RFCOLG); and the Rocky Flats Citizens Advisory Board (CAB).

   The IMP will be refined and implemented concurrently with the final remedial decision.

7. Building Disposition

   Summary: All contaminated buildings will be decontaminated as required for future use or demolition; unneeded buildings will be demolished.

   Intermediate Site Condition: By the end of this period, the remaining buildings that were used for plutonium, other special nuclear material, and transuranic waste storage will have been demolished. Also by the end of this period, decisions will have been made regarding material that has been stored in a retrievable and monitored manner for its continued treatment, storage or disposal.

   Status: All RFETS buildings were decommissioned, decontaminated as necessary, and demolished except for the east and west vehicle inspection sheds that DOE retains for future use. See the status description for On-Site and Off-Site Waste Management presented earlier.

8. Mortgage Reduction

   Summary: Weapons useable fissile material and transuranic wastes will be safely consolidated into the smallest number of buildings to reduce operating costs and

shrink the security perimeter; contaminated and non-contaminated buildings will be decommissioned and either demolished or turned over for other non-DOE uses.

Intermediate Site Condition: During this period, the secured area will be further reduced and eventually removed. Operating costs will be minimized. By the end of this period, weapons useable fissile material and transuranic wastes will have been removed from RFETS and the related buildings will have been decontaminated and either demolished or converted to non-DOE uses. Closure or conversion to non-DOE use of non-contaminated buildings will be completed by the end of this period. Also by the end of this period, in consultation with local officials, the Community Reuse Organization, and interested members of the public, existing RFETS infrastructure will be essentially eliminated, except for monitoring, and operation and maintenance of any remaining waste storage or disposal facilities, or to support RFETS reuse activities, to the extent that it is paid for by the users.

Status: See the status descriptions for On-Site and Off-Site Waste Management, Land Use, and Building Disposition presented earlier.

The streamlined regulatory approach summarized in Objective 4, Cleanup Guidelines, was implemented in several ways. Two new OUs were established: the IA OU with CDPHE as the LRA, and the BZ OU with EPA as the LRA. The 16 IAG OUs (Table 1.1) were realigned and consolidated to fit within these OUs, as was LRA planning, investigation, and decision document review and approval authorities (Table 1.2 and Table 1.3). RFCA also coordinated all of DOE's cleanup obligations under CERCLA, RCRA, and CHWA in a single agreement to streamline compliance with these three statutes.

A consultative, accelerated action approach for the IHSSs was also delineated in RFCA. RFCA paragraph 79 provides, in part, the following:

> *To expedite remedial work and maximize early risk reduction at the Site, the Parties intend to make extensive use of accelerated actions to remove, stabilize, and/or contain IHSSs. Focusing on IHSSs rather than OUs will allow most remedial work to be reviewed and conducted through one of the accelerated review and approval processes described in Part 9, rather than the RI/FS process….*

In addition, to aid in evaluation of accelerated action determinations for IHSSs, action levels (ALs) were established and used as described in RFCA paragraph 75:

> *The Action Levels and Standards Framework, Attachment 5, establishes action levels for ground water and soil as well as action levels and cleanup standards for surface water. Attachment 5 also establishes a deadline for setting additional action levels for soil and interim cleanup levels*

> *for soil. Action levels and standards are requirements of this Agreement, but exceedance of an Action Level is not subject to penalties. The Framework action levels describe numeric levels of contamination in ground water, surface water, and soils which, when exceeded, trigger an evaluation, remedial action and/or management action. The Framework surface water standards are in-stream contaminant levels that, contingent on action by the Colorado Water Quality Control Commission to align stream classifications and standards with the Action Levels and Standards Framework, the regulators will require DOE to meet for activities undertaken prior to the final CAD/ROD, and which constitute the Parties' current joint recommendation for the CAD/ROD….*

RFCA Attachment 5, RFETS Action Levels and Standards Framework for Surface Water, Ground Water, and Soils (ALF), has been modified several times.[8]

The RFCA approach resulted in development of a credible planning and funding baseline from which enforceable RFCA regulatory milestones were established and almost always met.[9] Implementation of RFCA resulted in reducing the projected time and funding needed to achieve required cleanup, and eventually line item, relatively level annual "closure project" congressional appropriations for RFETS were approved. The realignment and consolidation of OUs, disposition of IHSSs, and decommissioning of facilities pursuant to RFCA are discussed in more detail in Section 1.2.3.

1.2.1.4 Environmental Permits

After the NPL listing, CHWA/RCRA, National Pollutant Discharge Elimination System (NPDES), and Clean Air Act (CAA) permits covering RFETS operations were issued to DOE and its contractor.

RFCA paragraph 16 provides in part:

[8] For a more in-depth discussion of ALs and the accelerated action approach, see the Soil Action Levels Technical Memorandum, developed under Task 2 of the Final Work Plan for the Development of the Remedial Investigation and Feasibility Study Report (DOE 2002a). ALs for soil are based on risk to the wildlife refuge worker (WRW) human receptors and ALs for groundwater are based on drinking water standards for groundwater; thus, an accelerated action evaluation for these media is based on impacts to human health. ALs for surface water are based on Colorado water quality standards, which are protective of human health and ecological resources. Once an evaluation was triggered by the exceedance of soil or groundwater ALs, the threat to ecological receptors was considered in determining whether to take an accelerated action. An Ecological Risk Assessment (ERA), for purposes of the final remedy decision, is part of the CRA.

[9] See the RFCA quarterly reports for details on the annual milestone setting process and the "score cards" related to milestone achievement.

> *The Parties recognize that under section 121(e)(1) of CERCLA, portions of the response actions required by this Agreement and conducted entirely on the Site are exempted from the procedural requirement to obtain federal, state, or local permits, when such response action is selected and carried out in compliance with section 121 of CERCLA. It is the understanding of the Parties that the statutory language is intended to avoid delay of on-Site response actions, due to procedural requirements of the permit process. The Parties agree that the following activities are being approved, at least in part, pursuant to CERCLA authorities:*
>
> *a) removal or remedial actions in the Buffer Zone...;*
>
> *b) decommissioning activities;*
>
> *c) activities required under any concurrence CAD/ROD; and*
>
> *d) remedial actions in the Industrial Area for hazardous substances that are not also hazardous wastes or hazardous constituents (e.g., radionuclides that are not mixed wastes and PCBs).*

Pursuant to RFCA paragraph 15, when RFCA replaced the IAG, the following language was incorporated as the corrective action requirement of the CHWA permit:

> *There have been releases of hazardous wastes and constituents from solid waste management units into the environment at Rocky Flats. Accelerated corrective and remedial actions to address these releases are being regulated by the Department [CDPHE] and EPA under … [RFCA] …. Following implementation of these accelerated corrective and remedial actions, the Department [CDPHE] will be making a final corrective action decision for each OU. The final corrective action decisions will be incorporated as modifications to this permit. If the RFCA is terminated before all corrective action has been taken, this permit shall be modified to incorporate requirements of the RFCA that are requirements of CHWA.*

RFCA paragraph 65 also provided the following related to the operating permits:

> *Activities that are not subject to regulation under this Agreement shall continue to be subject to any existing permits, orders, etc., including, but not limited to, the following:*

a) CHWA permit No. CO7890010526[10]

b) Air Quality Operating permit (when issued)[11]

c) NPDES permit No. CO-0001333

Therefore, except as provided by the CHWA permit for corrective actions, environmentally permitted operational activities continued at RFETS during the cleanup under RFCA. These permits will be renewed as regulatorily required until they are terminated in accordance with the regulatory requirements for termination after permitted activities end, or upon CHWA-permitted facility closure in accordance with the CHWA permit closure plan. A CHWA post-closure permit or an order or agreement in lieu of a post-closure permit will be required.

1.2.2 Previous Site Investigations and Configuration

Many detailed studies of the RFETS environment have been performed. These studies include characterizations of geology, hydrology, biology, meteorology, and demography, as well as prior efforts to identify and characterize potential hazardous substance sites. Efforts to document the extent of contamination became a major focus starting in the 1980s in accordance with RCRA/CHWA and CERCLA. These studies provide most of the information upon which the current IHSS and OU structure is based.

1.2.2.1 IHSSs

In accordance with the IAG, a Historical Release Report (HRR) was developed. The original intent of the HRR was to capture existing information on historical incidents and Plant practices involving hazardous substances at RFETS. Additionally, the IAG prescribed that the HRR reporting process continue quarterly for reporting of new or newly identified releases of hazardous substances to the environment (now identified as PACs). RFCA incorporated the earlier IAG requirements for updating the HRR; however, it was agreed that reporting would be required annually instead of quarterly.[12] The final 2005 HRR is included as Appendix B.

For purposes of the HRR process and mapping clarity, original IHSS locations were designated a unique "PAC area" prefix based upon geographic location. For example, IHSS 123.1 is designated as PAC 700-123.1. An area where there has been a recent

[10] RFCA paragraph 65 refers to the facility identification number. The current CHWA Permit number is CO-04-06-18-01.

[11] The application for the air quality permit was filed with and accepted by CDPHE on February 13, 1996. According to the relevant rules, this provided a "permit shield" for air emission operations for which the permit was applied for, until final disposition of the application. Permit No. 96OPJE1249 was issued on July 1, 2002.

[12] The first HRR was released in June 1992 (DOE 1992a) and updated quarterly between 1992 and 1995 (DOE 1992a, 1992b, 1993a, 1993b, 1993c, 1993d, 1994b, 1994c, 1994d, 1994e, 1994f, 1995a, 1995b). Beginning in September 1996, the HRR was updated annually (DOE 1996a, 1997a, 1998b, 1999a, 2000a, 2001a, 2002b, 2003, 2004a, 2005a).

release or finding of a hazardous substance in the environment (post-1992) is also assigned a PAC area prefix number, followed by the next numerically highest PAC reference number for that area. These areas are referred to as PACs and are equivalent to IHSSs in that they are CERCLA sites requiring disposition through the HRR and RFCA process. PAC prefixes are selected according to geographic subdivisions, as illustrated on Figure 1.2 and Figure 1.3. Large PAC areas (that is, PACs that cross geographic PAC boundaries), such as the Original Process Waste Lines (OPWL) (PAC 000-121) and the Central Avenue Ditch (PAC 000-172), have been assigned a 000 prefix due to the boundary extent. There are a total of 329 PACs.

In addition, 31 UBC Sites and 61 PICs were designated. PIC locations are illustrated on Figure 1.4. The identification of UBC Sites was necessary because of the potential contamination of soil under specific buildings from broken process waste lines or other potential sources related to building histories. UBC Sites are identified using the UBC acronym followed by the building number (for example, UBC 123) (DOE 1996a). In addition, CDPHE conducted further investigations to verify that all areas of interest were identified as PACs, UBC Sites, or IHSSs (hereinafter referred to as "IHSSs") (CDPHE 1999, 2003).

Over time, IHSSs, PACs, UBC Sites, and PICs have totaled 421 areas at the Site requiring investigation and/or remediation. Regardless of the designation, each area was evaluated and investigated as needed. Table 1.4 lists each IHSS, PAC, UBC Site, and PIC.

1.2.2.2 OUs

OUs were created at RFETS based on the source of contamination, contamination type, and distribution of contaminants. Over time, the number of OUs was consolidated for purposes of remediation and closure of the Site. This history is discussed in more detail below.

IAG (1991)

The IAG grouped IHSSs by similar contaminant or geographic location into 16 OUs (Table 1.1).

CAD/RODs were completed for OUs 11, 15, and 16 under the IAG as described below.

OU 11, West Spray Field

OU 11 was composed of one IHSS: the West Spray Field (IHSS 168). The preferred alternative for OU 11 consisted of no action (DOE 1995c). The no action decision for OU 11 was based upon the National Contingency Plan (NCP), which provides for the selection of a no action alternative when a site or OU is in a protective state (that is, poses no current or potential threat to human health or the environment). The risk evaluation performed in the RFI/RI Report (DOE 1995d) determined that OU 11 was in a protective state. A RCRA closure certification for IHSS 168, signed by an independent registered

professional engineer, was approved by CDPHE. A certificate of clean closure was submitted to CDPHE in 1995 and the final CAD/ROD (Administrative Record [AR] Reference Number OU 11-A-000184) was completed on September 29, 1995.

OU 15, Inside Building Closures

OU 15, Inside Building Closures, was composed of eight IHSSs; however, IHSSs 215 and 212 were subsequently administratively incorporated into OU 9 and OU 10, respectively. The preferred alternative for the remaining six OU 15 IHSSs consisted of the following actions (DOE 1995e): clean closure under RCRA for all six IHSSs; a no action CERCLA decision for IHSSs 178, 211, and 217; and a deferral of any CERCLA actions at IHSSs 179, 180, and 204 until final disposition of their respective buildings. (These historical IHSSs have been addressed as required. See Section 1.2.3 regarding the building disposition process.) RCRA closure certification for the six IHSSs, signed by an independent registered professional engineer, was approved by CDPHE. The no action CERCLA decision for IHSSs 178, 211, and 217 is based upon the NCP, which provides for the selection of a no action alternative when a site or OU is already in a protective state. The CAD/ROD (AR Reference Number OU15-A-000272) was completed on September 13, 1995.

OU 16, Low-Priority Sites

OU 16, Low-Priority Sites, was originally composed of seven IHSSs. The decision for a no action remedy for five of the IHSSs (185, 192, 193, 194, and 195) was based upon the NCP, which provides for the selection of a no action alternative when a site or OU is already in a protective state (DOE 1994g). The risk evaluation performed in the Final No Further Action Justification document (DOE 1992c) determined that these IHSSs were in a protective state and presented no unacceptable risk to human health and the environment. Further investigation had been recommended for IHSSs 196 and 197, which were administratively transferred to OU 5 and OU 13, respectively. The CAD/ROD (AR Reference Number OU16-A -000164) was completed on September 29, 1994.

RFCA (1996)

The 16 OUs designated in the IAG were consolidated into 10 OUs during RFCA negotiations to reduce field and administrative requirements. The OU consolidation is contained in RFCA Attachment 1. The consolidation of the IAG OUs is presented in Table 1.2. At that time, CAD/RODs for OUs 11, 15, and 16 were already completed and CAD/RODs for OUs 1, 3, 5, 6, and 7 were in process or expected to be completed. For this reason these OUs retained their IAG designations. CAD/RODs were completed for OU 1 and OU 3 under RFCA as described below.

OU 1, 881 Hillside

OU 1 was composed of 11 IHSSs. The OU 1 CAD/ROD was signed in 1997 (DOE 1997b) (AR Reference Number OU01-A-001366), and a major modification to the

CAD/ROD was signed in 2001 (DOE 2001b) (AR Reference Number OU01-A-001416). The selected remedy presented in the original CAD/ROD includes three primary components:

1. Excavating subsurface soil contamination at IHSS 119.1, thereby removing the current source of groundwater contamination and thus the principal threat posed by OU 1. The major components of the selected remedial action at IHSS 119.1 included:
   - Excavation of approximately 1,000 to 2,000 cubic yards (cy) of contaminated subsurface soil at IHSS 119.1;
   - Ultraviolet/hydrogen peroxide and ion-exchange treatment of contaminated groundwater from the excavation and groundwater collected from a french drain installed in 1992; and
   - Off-site disposal of excavated soil.
2. Maintaining institutional controls throughout the OU 1 area in a manner consistent with RFCA, the Rocky Flats Vision, and ALF (Attachment 5 to RFCA). The specific mechanisms (for example, deed restrictions on future land use and prevention of domestic use of groundwater) to ensure the implementation and continuity of the necessary institutional controls were not included in the CAD/ROD. These mechanisms are envisioned to be placed in the final CAD/ROD for RFETS or in the OU 1 CAD/ROD during one of the 5-year reviews of this document.
3. No remedial action at the remaining 10 IHSSs in OU 1. Because of the groundwater and land use controls, low amounts of contamination in OU 1 outside of IHSS 119.1, and low levels of risk associated with the contamination, no remedial action was taken at the other OU 1 IHSSs.

Any surface soil contamination at OU 1 was administratively transferred and addressed jointly with other surface soil contamination originating from the 903 Pad Drum Storage Site (IHSS 112). A Major Modification to the CAD/ROD was approved by the LRA after soil sampling and analysis showed that there was no significant soil source of contamination and that it was not necessary to excavate historical IHSS 119.1 (DOE 2001b). The elements of the modified remedy for IHSS 119.1 included:

- Downgradient investigation – DOE performed confirmatory soil sampling downgradient of IHSS 119.1 to verify that a significant contamination source did not exist there. Therefore, subsurface soil was not excavated from IHSS 119.1, and groundwater from the excavation was not collected and treated.
- Cessation of groundwater extraction and treatment – The french drain was decommissioned so that it no longer collected groundwater. Groundwater continued to be extracted from the upgradient collection well and transferred to the existing Building 891 treatment system for final treatment and discharge for a period of 1 year after signing the Major Modification to the CAD/ROD.
- Groundwater monitoring – In accordance with the Major Modification to the OU 1 CAD/ROD (DOE 2001b), pumping and treating of groundwater from the collection well was discontinued in 2002 after four quarters of monitoring showed

that the average concentration of trichloroethene in the well continued to be below the Tier I groundwater AL. The collection well was then designated as a plume definition well and monitored quarterly consistent with the IMP. Data for this well have continued to indicate concentrations below ALF Tier I groundwater ALs.

OU 3, Off-Site Areas

OU 3 was composed of four IHSSs. The selected remedy for OU 3 was no action (DOE 1997c) based upon the Baseline Risk Assessment (BRA) and the Ecological Risk Assessment (ERA) contained in the RFI/RI Report (DOE 1996b). The RFI/RI Report concluded that all IHSSs within OU 3 are already in a state protective of human health and the environment. The NCP provides for the selection of a no action remedy when an OU is in such a protective state. Therefore, no remedial action regarding OU 3 or any of its constituent IHSSs was warranted. On June 30, 1997, EPA and CDPHE approved the final CAD/ROD document for OU 3 (AR Reference Number OU03-A-000551).

The continuing protectiveness of the OU 1 and OU 3 remedies was confirmed in the CERCLA 5-Year Review, discussed in Section 1.2.4.

RFCA Modifications (2004)

On April 13, 2004, the RFCA Parties modified the 1996 OU Consolidation Plan in RFCA Attachment 1 to reflect the current status. The changes were based on the following:

- OUs 1 and 3 were dispositioned in accordance with the final CAD/RODs for these OUs.
- The RFCA Parties agreed that the IHSSs contained in OUs 5, 6, and 7 (as modified in July 1996) could be efficiently consolidated into the BZ OU to reduce the number of OUs that may need individual CAD/RODs.

As a result, the 10 remaining OUs were consolidated into 7 OUs as outlined in Table 1.3. CAD/RODs were completed for 5 OUs and the BZ and IA OUs are being evaluated in this RI/FS Report.

1.2.2.3 Groundwater

Under the IAG and RFCA, contaminated groundwater was not identified as a separate OU. IAG OU investigations included groundwater contamination evaluation and yielded extensive knowledge regarding the various contaminant plumes that existed at the site and the OUs associated with each plume. Under the IAG and RFCA, sitewide hydrologic and contaminant fate and transport modeling was conducted using both the pre- and post-accelerated action site configuration.

Under RFCA, the IMP (DOE et al. 1997) specifies groundwater sampling and analysis requirements. RFCA requires that RFCA Parties jointly evaluate the IMP for adequacy on an annual basis, based on previous monitoring results, changed conditions, planned

activities, and public input. The RFCA Parties have reviewed the groundwater monitoring aspects of the IMP on a more frequent basis and updated the monitoring requirements as necessary. These reviews included consultation with local municipality representatives and other interested stakeholders.

1.2.3 Remedial Activities (RFCA Accelerated Actions)

The majority of accelerated action remedial work was completed after RFCA replaced the IAG in 1996. Since that time, all historical IHSSs, buildings, and identified contaminated groundwater plumes were dispositioned. All planned accelerated actions were implemented and signed off as completed by EPA and CDPHE by May 2006. Consequently, the term AL is no longer relevant to the discussion of site conditions at RFETS and is not used in the RI/FS evaluation. The term is used only in reference to the cleanup history. RFCA Accelerated Actions are described below.

1.2.3.1 IHSSs

To prioritize work at the site, IHSSs were listed in RFCA Attachment 3 and ranked in RFCA Attachment 4, Environmental Restoration Ranking, in order of descending risk using a methodology developed by the RFCA Parties. Accelerated actions were planned and conducted to address the highest risk-ranked IHSSs as early in the cleanup process as practicable, while the detailed consolidated plans for all RFCA cleanup activities (the Site baseline and schedule) were being developed. This allowed streamlined decision making and focused available resources on meaningful risk reduction. The RFCA Parties updated the ranking on an annual basis through fall 2001. They subsequently agreed that there was no need for future updates, because the Site baseline and schedule were sufficiently developed to address proper sequencing of building decontamination and decommissioning and historical IHSS cleanup through planned project completion in 2006. Also, many of the high risk-ranked historical IHSSs had been or were in the process of being cleaned up by that time.

All historical IHSSs listed in RFCA Attachment 3 were dispositioned in accordance with RFCA requirements. Under RCRA/CHWA, releases from SWMUs must be addressed to protect human health and the environment. The facility owner/operator is required to collect and present all information necessary for the individual release sites, or sources of contamination, to allow it and CDPHE to characterize the release and evaluate the risks to human health and the environment (CDPHE 2002, Sections 2.3 and 4.1). IHSSs were originally identified as SWMUs at RFETS. All known and suspected sources of contamination, which were designated as IHSSs, were thoroughly investigated as part of the RFCA IHSS disposition process as individual release sites (see Table 1.4 and Appendix B). As stated in RFCA paragraph 11, the Parties intend that compliance with the requirements of this Agreement will be deemed to achieve compliance with:

> *11(b) the corrective action requirements of sections 3004(u) and (v) of RCRA, 42 U.S.C. section 6924(u) and (v), for a RCRA permit, and section 3008(h), 42 U.S.C. section 6928(h), for interim status facilities; and*

> *11(c) the corrective action requirements of CHWA, including 6 CCR 1007-3 sections 264.101 and 265.5.*

An IHSS disposition flow chart is shown on Figure 1.5, and the general disposition process is described below.

HRR information, process knowledge, and results of previous sampling and analysis efforts were used in planning for disposition of each historical IHSS. To facilitate the RFCA decision-making process, the majority of IHSSs were further consolidated into 58 IHSS Groups in the IA OU and 8 IHSS Groups in the BZ OU as part of the 1999 IA Characterization and Remediation Strategy (IA Strategy) (DOE 1999b). Even though IHSSs were placed in groups, each IHSS within each group was evaluated on an individual basis. The group designations for those historical IHSSs that were grouped are indicated in Table 1.4.

RFCA Accelerated Actions and ALs

As discussed in Section 1.2.1, the need for a RFCA accelerated action was based on an AL evaluation. RFCA ALs were numeric levels that, when exceeded, triggered an action determination evaluation in accordance with RFCA Attachment 5 and an appropriate accelerated response action (RFCA Attachment 5, Section 1.1). In general, RFCA ALs were based on the following:

- Soil ALs were calculated to be protective of a wildlife refuge worker (WRW) based on (1) a lifetime excess cancer risk of 1×10^{-5} and (2) a hazard index (HI) of 1. The more conservative of the two values was used as the soil AL (RFCA Attachment 5, Sections 4.0 and 5.0).
- Groundwater ALs were based on surface water protection (RFCA Attachment 5, Section 3.1) by applying maximum contaminant levels (MCLs). Where an MCL for a particular contaminant was missing, the residential groundwater ingestion-based preliminary remediation goal (PRG) value applied (RFCA Attachment 5, Section 3.2).
- Surface water ALs (RFCA Attachment 5, Section 2.2) were based on Colorado surface water use classifications for RFETS: water supply, aquatic life – warm 2, recreation 2, and agricultural. Numeric values were derived from the following:
  - For metals, the site-specific standards or the basic standards applied. If the basic and site-specific standards differed for a particular metal, the site-specific standard applied.
  - For inorganics, the site-specific standards or the basic standards applied. If the basic or site-specific standards differed for a particular inorganic, the site-specific standard applied.
  - For organic chemicals, the more stringent of the basic standards or the site-specific standards applied.
  - For radionuclides, the basic standards applied.

The surface water standards that ALF was designed to protect are found in Colorado Water Quality Control Commission (CWQCC) Regulation No. 31: Basic Standards and Methodologies for Surface Water (5 Code of Colorado Regulations [CCR] 1002-31) (basic standards) and the site-specific water quality standards in CWQCC Regulation No. 38 (5 CCR 1002-38) (site-specific standards). If a numeric value existed for multiple use classifications, then the lowest numeric value was selected as the AL.

For additional details on the basis of ALs and how they were specifically applied at RFETS, see RFCA Attachment 5.

Characterization results were compared to RFCA soil ALs specified in ALF to evaluate whether the levels and extent of contamination triggered an accelerated action. Because of concerns by some in the community over the exposure parameters used to establish the radionuclide soil action levels (RSALs) in 1996, these levels were considered interim. The RFCA Parties conducted a review to determine whether the interim RSALs should be modified. During the period of review the future land use as a National Wildlife Refuge became law. Thus, the RSAL review expanded to reconsider soil ALs for all analytes, using the WRW exposure scenario. As a result of the review, soil ALs and the evaluation and implementing criteria for RFCA accelerated actions required under ALF were modified in 2003 based upon levels that were calculated to result in a lifetime excess cancer risk of $1x10^{-5}$ to the WRW. However, while this risk level equated with a surface soil concentration of 116 picocuries per gram (pCi/g) for plutonium-239/240, the RSAL for plutonium was established at a lower level of 50 pCi/g, which equates to approximately $3x10^{-6}$ risk. This lower RSAL was designed to help ensure the total risk from all radionuclides would be below $1x10^{-5}$ and reduce plutonium concentrations that could migrate through the soil erosion pathway. The lower plutonium RSAL also met acceptable risk and annual radiation dose applicable or relevant and appropriate requirements (ARARs) for an unrestricted user scenario.[13]

In addition, the modified ALF implementing criteria required soils within 3 ft of the surface contaminated above the plutonium RSAL to be removed to below the RSAL. This also addressed the soil erosion pathway concerns. Thus, in the disposition of all IHSSs where plutonium-239/240 was the soil contaminant, 50 pCi/g in surface soil was the accelerated action trigger for soil removal. This RSAL is not a trigger for actions being evaluated in the FS for final remedy purposes, and is not used in the evaluation of nature and extent of soil contamination or the CRA for risk calculations. Rather, risk for plutonium, like all other contaminants, is calculated based on existing contamination levels after completion of accelerated actions.

Prior to 2000, characterization was completed in accordance with CDPHE- and EPA-approved Sampling and Analysis Plans (SAPs) for a specific IHSS or group of IHSSs

[13] The Soil Action Levels Technical Memorandum, developed under Task 2 of the RI/FS Work Plan, discusses this review and subsequent revision of ALs, including interim RSALs. See also Section 10.5 of the RI/FS Report, which contains ARARs for annual radiation dose criteria for restricted and unrestricted use.

within relatively close geographic proximity. To streamline the regulatory review process, existing IA and BZ characterization data were summarized (DOE 2000b, 2001c), and two SAPs were developed and approved by EPA and CDPHE to direct the soil characterization activities: the IA SAP (IASAP) (DOE 2000c) and the BZ SAP (BZSAP) (DOE 2002c). These SAPs emphasized performing real-time analyses using an on-site laboratory and field-portable instruments to streamline the sampling and data analysis processes and shorten the time to render remedial decisions. The specific sampling and analytical requirements for each IHSS Group were contained in SAP Addenda, which were prepared and submitted to the LRA for the particular IHSS Group for review and agreement. The Addenda provided "starting points" from which the soil cleanup activities proceeded. The strategies and decision rules defined in the SAPs guided in-process and final "endpoint" confirmation sampling and analysis. In 2004, the IASAP and BZSAP were combined into one sitewide SAP titled the IABZSAP (DOE 2004b), which was approved by EPA and CDPHE. Ecological threats were considered and evaluated in accordance with ALF and the IABZSAP. (An ERA is also part of the CRA.)

If no accelerated action was required, the data were summarized in a Data Summary Report and the IHSS or IHSS Group was recommended for No Further Accelerated Action (NFAA). The Data Summary Report summarized, in tabular and graphical format, the data that justify the NFAA for the IHSS Group. Information provided in the Data Summary Report was used in the update to the HRR pertaining to the IHSS to further document the basis for NFAAs. If an accelerated action was taken, the confirmation sampling results were used to demonstrate that NFAA requirements were met for the IHSS.

Except in a few instances, groundwater contamination was not identified at specific IHSSs. However, IHSS-specific contaminated soil remedial activities generally reduced sources of soil contamination that could continue to impact groundwater and/or surface water quality. Accelerated actions for groundwater contamination are discussed below.

If an accelerated action was determined to be required, it was proposed in a draft decision document for LRA approval. Three types of RFCA accelerated actions have been conducted in accordance with the following RFCA decision documents:

- Proposed Action Memorandums (PAMs) – Implemented when remedy selection was straightforward, and remedial activities were estimated to take less than 6 months from commencement of the physical work to completion;
- Interim Measure/Interim Remedial Actions (IM/IRAs) – Implemented when a formal evaluation of remedial options was necessary or remedial activities were estimated to take more than 6 months from commencement of physical work to completion; and
- RFCA Standard Operating Protocols (RSOPs) – Implemented for routine accelerated actions that are substantially similar in nature, for which standardized procedures were developed (DOE 2002d).

RFCA also provides that a RCRA/CHWA-permitted or interim status unit may be closed under a separate closure plan, or under an accelerated action decision document.

At the completion of the accelerated action, regardless of the type of decision document implemented, a Closeout Report was prepared and submitted to the LRA for approval. The purpose of the Closeout Report was to document accelerated action activities for an IHSS Group. The Closeout Report summarized characterization data, the action taken, demarcation of excavation, confirmation sampling results, remediation waste volume and disposition, any changes in remediation approach and the rationale behind the change, stewardship recommendations, and the demarcation of residual contamination left in place. Information provided in the Closeout Report was used in the update to the HRR to further document the basis for NFAAs.

Table 1.4 lists each IHSS and IHSS Group and their respective IAG OU and RFCA OU designations. Table 1.4 also lists the applicable Data Summary Report or Closeout Report to show the disposition of each IHSS.

1.2.3.2 Groundwater

The RFCA consolidation of OUs emphasized prioritizing the individual IHSSs and conducting accelerated actions on contaminated soil that may have been contributing to contaminated groundwater plumes. Groundwater contamination was not identified as a separate OU, however IHSSs known to be a source of groundwater contamination were addressed through accelerated actions.

One accelerated action goal was the removal or adequate containment of contaminated soil and waste to reduce impacts to surface water quality from known or suspected soil and groundwater contamination sources. Soil ALs were calculated based on soil ingestion and inhalation exposure pathways; the ALs do not include the soil-to-surface water or soil-to-groundwater pathways or any subsequent groundwater-to-surface water pathways. Therefore, it was necessary to also evaluate contaminated groundwater plumes and contaminated soil sources for potential impacts to surface water.

In accordance with RFCA, levels of contamination in groundwater and soil were compared with groundwater and soil ALs specified in RFCA Attachment 5, ALF. For groundwater and soil concentrations that exceeded specified ALs, an evaluation, including impacts of cross-media contamination, was conducted in accordance with ALF to determine the appropriate response action.

Accelerated groundwater actions currently in operation are the collection barriers and passive treatment cells installed for the East Trenches Plume (DOE 1999c), Mound Site Plume (DOE 1997d), and Solar Ponds Plume (DOE 1999d). These accelerated actions were conducted to reduce contaminant loading to surface water. A system was also installed to collect and passively aerate a groundwater seep at the Present Landfill area to remove low levels of benzene contamination prior to discharge to surface water (DOE 2004c). Additional evaluation for contaminated groundwater accelerated action decisions

was deferred to a sitewide evaluation, which is contained in the IM/IRA for Groundwater (Groundwater IM/IRA) (DOE 2005b).

The Groundwater IM/IRA concluded that the following would have a positive long-term impact on groundwater and/or surface water quality:

- The already completed accelerated actions for soil source removals and enhancement through in situ biodegradation using a one-time placement of hydrogen releasing compound in the soil; and
- Addition of in situ biodegradation and phytoremediation technologies to enhance the improvement of groundwater quality being achieved by the ETPTS, SPPTS, and MSPTS.

Other soil source removals have eliminated potential sources of groundwater contamination. Those actions include decontamination and decommissioning of buildings and infrastructure, removing liquids in tanks and piping, plugging process lines and sewers left in place, and disrupting utility corridors.

1.2.3.3 Buildings

In accordance with RFCA, decommissioning activities were conducted as CERCLA removal actions. By October 2005, all buildings were removed except for the east and west vehicle inspection sheds retained for DOE uses. As required by RFCA, a Decommissioning Program Plan (DPP) (K-H 1999) established the framework for the disposition of all facilities at RFETS. Decommissioning of contaminated facilities was conducted under a RFCA accelerated action decision document approved by the LRA. A building disposition flow chart is presented on Figure 1.6, and the general disposition process is described below.

Each RFETS facility was preliminarily screened as either a Type 1, Type 2, or Type 3 facility based on the levels of contamination known or believed to exist within the facility. The EPA- and CDPHE-approved Decontamination and Decommissioning (D&D) Characterization Protocol (D&D Protocol) and the Reconnaissance-Level Characterization Plan, Appendix D of the D&D Protocol, guided the identification of hazards necessary for proper building typing (DOE 2001d; CDPHE and EPA 2001). Generally, a building-specific Reconnaissance-Level Characterization Report (RLCR) was prepared that provided the basis for the building type for LRA concurrence. Prior to demolition of Type 2 or Type 3 buildings after decontamination, a Pre-Demolition Survey was conducted in accordance with the LRA-approved Pre-Demolition Survey Plan, and a Pre-Demolition Survey Report (PDSR) was prepared for LRA review and approval. Demolition was then conducted after the LRA approved the PDSR. In some instances, PDSRs or previous characterization information, such as knowledge of building use, was used in lieu of the RLCR for facility typing (primarily used for proposed Type 1 buildings). The buildings were identified as Type 1, 2, or 3 as follows:

- Type 1 - Buildings Free of Contamination. “Free of contamination” means that the following conditions were met:

  - Hazardous wastes, if any, were removed and any RCRA units were properly closed in accordance with regulatory requirements for unit closure prior to demolition;
  - Routine surveys for radiological contamination showed the building was not contaminated;
  - Surveys, if required, for hazardous substance contamination showed the building was not contaminated; and
  - If any hazardous substances including polychlorinated biphenyls (PCBs) in light ballasts or friable asbestos were present, they were considered an integral part of the building's structural lighting, heating, electrical, insulation, or decorative material. As such, they were not considered contaminated. Friable asbestos and PCBs were removed for proper disposal before building demolition.

- Type 2 - Buildings Without Significant Contamination or Hazards, but in Need of Decontamination. Type 2 buildings contained some radiological contamination or hazardous substance contamination. The extent of the contamination was such that routine methods of decontamination sufficed and only a moderate potential existed for environmental releases during decommissioning. Most buildings where industrial operations occurred that used hazardous substances and/or radioactive materials fell into this category.
- Type 3 - Buildings With Significant Contamination and/or Hazards. Type 3 buildings contained extensive radiological contamination, usually as a result of plutonium processing operations or accidents. Contamination existed in gloveboxes, ventilation systems, and/or the building structure. Those buildings that were used for plutonium component production along with the major support buildings for such production included Buildings 371/374, 771/774, 707, 776/777, and 779.

For Type 2 and Type 3 buildings, four types of RFCA decision documents, which were approved by the LRA, were used for decommissioning activities:

- PAMs, written when activities took less than 6 months to complete;
- IM/IRAs, written when activities took more than 6 months to complete;
- Decommissioning Operations Plans (DOPs), used for Type 3 buildings; and
- RSOPs, used for repetitive decommissioning activities regardless of the facility type.

Decommissioning of Type 2 buildings was typically conducted under the RSOP for Facility Disposition (DOE 2000d) and the RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities (DOE 2001e), although several buildings were decommissioned under an IM/IRA or PAM. Type 3 buildings were decommissioned pursuant to DOPs.

Closeout Reports document the completed building decommissioning activity. The Closeout Reports for Type 2 and 3 buildings were submitted for LRA approval. Closeout Reports for Type 1 buildings were provided to the LRA for information.

Table 1.5 lists each building decommissioned under RFCA, the building type, and the associated Closeout Report.[14]

1.2.4 CERCLA Five-Year Review

Section 121(c) of CERCLA requires that remedial actions resulting in any hazardous substances remaining at a site shall be periodically reviewed no less than every five years (thus, referred to as the CERCLA Five-Year Review) to ensure adequate protection of human health and the environment. Comprehensive Five-Year Review Guidance issued by EPA in June 2001 (EPA 2001) provided such reviews are to be conducted on a sitewide basis for response actions that did not result in levels of contamination that allow unrestricted and unlimited use. The CAD/ROD for OU 3, signed in June 1997, although a no action decision based on unrestricted use, stipulated that a Section 121(c) review would be required for that OU because completion of the then ongoing review of interim soil ALs for radionuclides had not been completed.[15] This date was taken as the trigger for the first periodic Site review. The scope included OU 1 and OU 3, for which final CAD/RODs were issued, and the following completed accelerated actions with residual levels of contamination above unrestricted use levels:

- Trenches T-1 through T-4, historical IHSSs 108, 109, 110, and 111.1;
- Mound Site, historical IHSS 113;
- East Trenches, Mound Site, and Solar Pond Plumes reactive barriers and treatment systems (Figure 1.2);
- Solar Ponds Sludge Removal, historical IHSS 101;
- Former OU 7 (historical IHSSs 114, 167.2, 167.3, and 203) seep treatment system;[16] and
- Underground Storage Tanks accelerated action for six tanks (T-2, T-3, T-10, T-14, T-16, and T-40) related to the OPWL, historical IHSS 121.

DOE conducted the review from October 2001 through May 2002, with participation of EPA and CDPHE staff. EPA concurred with the Final Report (DOE 2002e) (AR

[14] Note that this list represents the portion of the over 800 structures that have been removed in cleanup and closure of RFETS that were required to follow the RFCA building disposition process described herein.

[15] The Soil Action Levels Technical Memorandum, developed under Task 2 of the Final Work Plan for the Development of the RI/FS Report (DOE 2002a), discusses this review and subsequent modification of interim RSALs.

[16] This system has been removed and replaced as part of the accelerated action to install a cover on the Present Landfill, historical IHSS 114, to meet final closure performance criteria. See Section 2.0 for information about the landfill cover and current seep treatment system.

Reference Number SW-A-004535), which includes a Protectiveness Statement as required by EPA guidance, on September 26, 2002.

Pursuant to the Protectiveness Statement, DOE's ongoing custody and control of RFETS, ongoing monitoring programs, and restriction of public access all serve to adequately control risks posed by contamination at RFETS. The no action decision for OU 3, which lies east of the RFETS property boundary and outside DOE custody and control, was determined to be adequately protective. In addition, the Protectiveness Statement recognized that DOE was continuing cleanup within the RFETS boundary under RFCA and proceeding toward a final remedy that is expected to be adequately protective when implemented.

It was also concluded that the final remedy for OU 1 is protective and that the accelerated actions addressed the immediate hazards presented prior to the actions that, for the most part, are functioning as intended. The potential bypassing of the SPPTS by contaminated groundwater was identified as an area where the system may not be properly functioning. This may allow contaminated groundwater to impact North Walnut Creek downgradient of the barrier, such that it may not continuously meet surface water quality standards at monitoring points upstream of the A-series terminal pond. However, surface water meets water quality standards at the A-series terminal pond discharge Point of Compliance (POC).

1.3 Site Conditions for Evaluation in the RI/FS, Proposed Plan, and Final Remedy

RFCA paragraph 83 provides:

> *Following implementation of all planned accelerated actions, CDPHE and EPA shall evaluate the Site conditions and render final remedial/corrective action decisions for each OU. Notwithstanding the emphasis on accelerated actions and IHSS-based approach, the Parties recognize that the final remedial/corrective action decisions may require some additional work as specified in the CAD/ROD to ensure an adequate remedy.*

The purpose of the RI/FS Report is to complete this evaluation. Based on the RFCA consolidation of OUs within the RFETS boundary, the geographic areas of all OUs except OU 3 are contained within the BZ or IA OU. Thus, the RI/FS reevaluates all OUs within the IA and BZ OUs. The RI characterization information and CRA results provide the basis for evaluating remedial alternatives and rendering a final decision for the BZ and IA OUs.

It is important to note that the RI/FS Report represents site conditions immediately following completion of accelerated actions and prior to any soil backfilling or recontouring to match the surrounding geomorphology. Consequently, the RI/FS Report does not represent the final land configuration of the site. The land configuration of RFETS immediately following completion of accelerated actions is not consistent with

a future National Wildlife Refuge. The final configuration of RFETS may be different in some areas of RFETS than the configuration following accelerated actions due to soil backfilling to fill in excavation sites or recontouring to match the surrounding geomorphology and placement of functional channels to aid in site drainage of overland surface water flow. These changes resulted in a final configuration that is consistent with a National Wildlife Refuge. This approach provides a conservative representation of contamination remaining in soil at RFETS because it does not take into account the additional protectiveness provided by the added clean soil.

1.4 RFCA Post-Accelerated Actions: RCRA/CHWA RFI/CMS and CERCLA RI/FS Requirements (Roadmap to the RI/FS Report)

Because both RCRA/CHWA and CERCLA programs were integrated at RFETS, the evaluation of site conditions following implementation of all planned accelerated actions in order to render final remedial/corrective action decisions for each OU must be consistent with RCRA/CHWA and CERCLA requirements. The RCRA/CHWA and CERCLA site investigation and remedy selection processes have similar goals for determining site conditions in order to select a remedial alternative that provides adequate protection of human health and the environment. This section outlines the RCRA/CHWA, CERCLA, and regulatory agency-approved RI/FS Work Plan requirements for the RFETS RI/FS Report.

RCRA/CHWA regulates hazardous wastes and hazardous constituents. Most hazardous substances are also hazardous constituents, and vice versa. Major exceptions are plutonium and americium. Under RCRA/CHWA, the corrective action process consists of three primary activities: characterizing the release (the RFI), selecting a remedy from identified alternatives (the CMS), and implementing the selected remedy until the desired remediation goals are achieved (the CAD) (CDPHE 2002, Section 2.3).

Under CERCLA, the purpose of the remedy selection process is to implement remedies that eliminate, reduce, or control risks to human health and the environment (40 Code of Federal Regulations [CFR]300.430[a][1]). The RI and CRA results provide the basis for identifying any environmental concerns posed by remaining site-related contamination. The FS evaluates alternatives to the extent necessary to select a remedy (40 CFR 300.430[a][2]).

1.4.1 Physical Characteristics of the Study Area

CDPHE guidance states that the site setting describes not only the physical features of the site, but also identifies the nearby cultural and environmental populations that could be potentially impacted by a release from the facility. Surface characteristics include both natural and manmade structures on and adjacent to the site, nearby cultural populations, and all relevant flora and fauna populations. It is important to evaluate natural features and manmade structures, such as drainage systems, local topography, utilities, surface water bodies, easements, and locations of buildings, because these features can influence the migration of contaminants and restrict access to portions of the site during remedial efforts. Subsurface characteristics include the hydrologic and geologic properties of the

ground beneath the facility and surrounding properties. This information is used in conjunction with other site setting information in evaluating contaminant migration pathways and establishing potential exposure scenarios (CDPHE 2002).

Under CERCLA, data on physical characteristics of the site and surrounding areas should be collected to the extent necessary to define potential transport pathways and receptor populations and provide sufficient engineering data for development and screening of remedial alternatives. Information normally needed can be catergorized as surface features (including natural and artificial features), geology, soils, surface water hydrology, hydrogeology, meteorology, human populations, land uses, and ecology (EPA 1988).

Section 2.0 presents the physical characteristics of the study area, which was completed in accordance with RI/FS Work Plan Task 7. Accordingly, this section summarizes the physical characteristics of the site, including surface features, meteorology, surface water hydrology, geology, soil, hydrologeology, demography and land use, and ecology (DOE 2002a). This information will be used in Section 8.0, Contaminant Fate and Transport.

1.4.2 Nature and Extent of Contamination

Under RCRA/CHWA, the facility owner/operator is required to collect and present all information necessary to allow it and CDPHE to characterize the release and evaluate the risks to human health and the environment (CDPHE 2002, Section 2.3).

Under CERCLA, the final objective of the field investigations is to characterize the nature and extent of contamination such that informed decisions can be made as to the level of risk presented by the site and the appropriate type(s) of remedial response (EPA 1988, Section 3.2.4).

Remediation goals establish acceptable exposure levels that are protective of human health and the environment (40 CFR 430 [e][2][i]). The 10^{-6} risk level shall be used as the point of departure for determining remediation goals for alternatives when ARARs are not available or are not sufficiently protective because of the presence of multiple contaminants at a site or multiple pathways of exposure (40 CFR 430 [e][2][i][A][2]). At this point in the RCRA/CERCLA process at Rocky Flats, remediation goals are termed PRGs. PRGs are calculated in accordance with the CRA Work Plan and Methodology (CRA Methodology) and are contained in Appendix A of the CRA Methodology.

Ecological screening levels (ESLs) are not used to define the extent of contamination in the RI. While both RCRA/CHWA and CERCLA require information necessary to characterize the release and evaluate risks to human health and the environment, no RCRA/CHWA or CERCLA regulation or guidance requires a screen to an ESL concentration to define the extent of contamination. ESLs are calculated in accordance with the CRA Methodology and are contained in Appendix B of the CRA Methodology. ESLs were calculated for soil, surface water, and sediment. ESLs have been developed for abiotic media and a range of representative ecological receptors.

An exceedance of an ESL does not in itself mean there is a risk to an ecological receptor, nor does an exceedance of an ESL mean that contamination is present as a result of a site release. ESLs are used in the first step of the ERA process to identify ecological contaminants of potential concern (ECOPCs) for ecological receptors. The second step in the ERA process is to characterize potential risks to ecological receptors from exposure. A comparison of the RI-ready data to ESLs or PRGs is presented in Appendix A, Volume 2, Attachment 3:

- Surface soil – Exposure Unit (EU) overlay and ESL comparison; Figures A3.1 through A3.8;
- Surface soil/surface sediment – EU overlay and PRG comparison; Figures A3.9 through A3.16;
- Surface soil – EU and PMJM habitat patch overlay and PMJM ESL comparison; Figures A3.17 through A3.24;
- Surface water – EU overlay and PRG comparison; Figures A3.25 through A3.32;
- Surface water – Aquatic EU (AEU) overlay showing sample frequency; Figures A3.33 through A3.40;
- Sediment – AEU overlay and ESL comparison; Figures A3.41 through A3.48;
- Surface water – AEU overlay and ESL comparison; Figures A3.49 through A3.56;
- Subsurface soil – EU overlay and ESL comparison; Figures A3.57 through A3.64;
- Subsurface soil/subsurface sediment – EU overlay and PRG comparison; Figures A3.65 through A3.72; and
- Surface soil sampling locations within or near PMJM habitat patches; Figures A3.73 and A3.74.

If results of the ERA identify site conditions due to residual contamination that represent a significant risk of adverse ecological effects to receptors from exposure to site-related residual contamination, then the remediation goals may be modified, as appropriate, to be protective of the environment.

1.4.2.1 Soil

Section 3.0 contains the nature and extent of soil contamination, which was completed in accordance with RI/FS Work Plan Task 12. Accordingly, this section summarizes the types of contaminants present in soil at the site, as well as their areal and vertical distribution. The section also includes figures that adequately portray the distribution of contaminants in surface and subsurface soil at the site, including the extent of contamination above the respective PRGs (DOE 2002a). CDPHE guidance states that the extent of contamination in soil is defined when one of the following conditions is met:

- Representative soil samples are shown to have no contaminant levels exceeding background levels;

- For each individual constituent, the contamination is defined down to a concentration that poses an excess cancer risk equal to or less than 1×10^{-6} and/or an HI of less than 1 using a residential exposure scenario (unrestricted use); or
- For each individual constituent, the contamination is defined down to a concentration that poses an excess cancer risk equal to or less than 1×10^{-6} and/or an HI of less than 1 using a site-specific exposure scenario other than a residential land use (restricted use) (CPDHE 2002, Section 4.3.1).

Because the Refuge Act defined the future land use for Rocky Flats as a wildlife refuge, the Nature and Extent of Soil Contamination section summarizes the types of contaminants present in soil at RFETS on a sitewide basis in relation to detection limits, to site-specific background concentrations, and to concentrations that pose an excess cancer risk equal to or less than 1×10^{-6} and/or a hazard quotient (HQ) of less than 0.1 to a WRW (that is, the WRW PRGs)[17]. It is also consistent to use risk-based levels for comparison because there are no ARARs-based values for soil. This section also identifies soil AOIs. Soil AOIs are those analytes with concentrations[18] greater than the WRW PRGs and, based on process knowledge, have a history of usage at RFETS. The soil AOIs are evaluated in Section 8.0, Contaminant Fate and Transport.

1.4.2.2 Groundwater

Section 4.0 contains the nature and extent of groundwater contamination, which was completed in accordance with RI/FS Work Plan Task 10. Accordingly, this section summarizes the types of contaminants present in groundwater at the site, as well as their distribution in the two hydrostratigraphic units present beneath the site. Sources, migration pathways, and impacts of the contamination are assessed and depicted,[19] as well as the passive treatment systems that are in place to intercept the contamination. The Nature and Extent of Groundwater Contamination section includes figures that portray the distribution and migration of contaminants in groundwater at the site, including the contamination above surface water standards (DOE 2002a). CDPHE guidance states that the extent of contamination in groundwater is considered defined when contaminant levels are:

- At or below established State groundwater standards; or
- At or below MCLs for those constituents that do not have an established State groundwater standard; or

[17] The WRW PRGs are human health screening levels developed for noncarcinogenic effects using an HQ of 0.1 or for carcinogenic effects based on a target risk of 1×10^{-6}. The more conservative of the two values is used for the preliminary remediation goal (PRG). An HQ is based on a single contaminant while an HI is based on the summation of HQs of multiple contaminants. For the purpose of developing chemical-specific PRGs, the RFCA Parties agreed to base the noncarcinogenic PRG on an HQ of 0.1 to account for potential cumulative effects of multiple contaminants. These values are used for AOI screening in the nature and extent evaluations.

[18] For purposes of this section, the concentration of contaminants is the total concentration and not the Toxicity Characteristic Leaching Procedure (TCLP) concentration.

[19] This information is provided in Section 8.0, Contaminant Fate and Transport.

- At or below a risk-based concentration that is determined to be protective of human health and the environment for those constituents that do not have an established groundwater standard or MCL; and
- At or below a concentration that is protective of surface water quality and ecological receptors (in those situations where groundwater interacts with surface water); and
- At or below a concentration that is protective of other potential exposure pathways (for example, off-gassing of vapors and their collection in indoor air) (CDPHE 2002, Section 4.3.1).

The CWQCC established the RFETS groundwater use classification as surface water protection. The groundwater standards associated with that use classification are the surface water standards promulgated in the CWQCC regulations. Where a surface water standard for a particular contaminant is not available, the maximum contaminant level (MCL) will apply. MCLs have been established by EPA for many chemical contaminants and represent the maximum permissible level of a contaminant in drinking water. MCLs are listed in 40 CFR 141. If the practical quantitation limit (PQL)[20] is higher than either the surface water standard or MCL, the PQL is used as the comparison value.

This section also identifies groundwater AOIs. Groundwater AOIs are those analytes that are detected, present above background concentrations, and surface water standards, MCLs or PQLs, and form contiguous, mappable contaminant plumes. Comparison to surface water standards is also consistent with RFCA objectives of protecting surface water quality. The groundwater AOIs are evaluated in Section 8.0, Contaminant Fate and Transport.

1.4.2.3 Surface Water and Sediment

Section 5.0 contains the nature and extent of surface water and sediment contamination, which was completed in accordance with RI/FS Work Plan Task 11. Accordingly, this section summarizes the types of contaminants present in surface water and sediments at the site, as well as their distribution in the four drainages, South Interceptor Ditch (SID), Woman Creek, North Walnut Creek, and South Walnut Creek (and tributaries thereto). Groundwater and surface soil sources for the contamination are depicted. As appropriate, results from the Site-Wide Water Balance (SWWB) and the Actinide Migration Evaluation (AME) are included to support demonstration of compliance with surface water quality standards.[21] The Nature and Extent of Surface Water and Sediment Contamination section includes figures that portray the distribution and migration of contaminants in surface water at the site (DOE 2002a).

[20] A PQL is the lowest analyte concentration that is routinely quantified and reported by a laboratory.

[21] This information and the comparison to the SWWB and AME is presented in Section 8.0.

This section also identifies surface water and sediment AOIs. Per agreement between the RFCA Parties, surface water AOIs are those analytes that are present above the background mean plus two standard deviations (M2SD) and have greater than 1 percent frequency of detection above the surface water standard[22] or PQL if greater than the standard for samples collected since January 1, 2000, which accounts for temporally representative data. Sediment concentrations are compared to WRW PRGs because there are no ARARs-based values for sediment. Sediment AOIs are those analytes that are present above the background M2SD and have greater than a 1 percent frequency of detection above the WRW PRG. The surface water and sediment AOIs are evaluated in Section 8.0, Contaminant Fate and Transport.

1.4.2.4 Air

Section 6.0 contains the nature and extent of air contamination, which was completed in accordance with RI/FS Work Plan Task 9. Accordingly, this section summarizes the types of contaminants present in air at the site, as well as their concentrations, on and off site. Both radionuclides and nonradionuclides are addressed, although the focus is on radionuclides. Sources and migration patterns for the contamination are discussed. The Nature and Extent of Air Contamination section includes figures that adequately portray the distribution and migration of contaminants in air at the site, including depiction of any radiological contamination that exceeds applicable standards based on ARARs for the site (DOE 2002a).

The environmental fate and transport of AOIs over time for all media are evaluated further in Section 8.0, Contaminant Fate and Transport, for consideration in evaluating remedial alternatives, as specified in RI/FS Work Plan Task 14, Detailed Analysis of Alternatives.

1.4.3 Comprehensive Risk Assessment

Section 7.0 contains a summary of the CRA, which was completed in accordance with RI/FS Work Plan Task 13 and the CRA Work Plan and Methodology, which was completed in accordance with RI/FS Work Plan Task 8. The CRA uses the same RI-ready dataset that is used for the other RI analyses. The CRA is included as Appendix A, Volumes 1 through 15, of the RI. The CRA consists of two parts: a Human Health Risk Assessment (HHRA) and an ERA. A risk assessment is an evaluation of potential adverse impacts to human health and the environment that may exist from contaminated environmental media associated with site-related activities.

The CRA was designed to provide information to decision makers to help determine the final remedy that is adequately protective of human health and the environment. Because of the decision to take accelerated actions on an IHSS-by-IHSS basis, the RFCA Parties believed it was necessary to evaluate the site more holistically at the end of the

[22] Elimination of less-than-1-percent-frequency analytes is based on application of Colorado's guidance on data requirements and interpretation methods used to establish existing water quality in CWQCC rulemaking proceedings (Colorado WQCD 1993, 2004, 2005). See Section 5.5.4 for additional details.

accelerated action process to ensure that there were no adverse cumulative impacts. The final CRA was completed under the CRA Methodology which specified the evaluation of concentrations of contaminants on an EU basis rather than on an individual release site basis.

Under CERCLA, EPA considers environmental concentrations corresponding to a 1×10^{-6} to 1×10^{-4} cancer risk range and a total noncancer HI of 1 to be adequately protective of human health (NCP 1990 and EPA 1989, respectively).

CDPHE defines acceptable human health risk as a lifetime excess cancer risk of 1×10^{-6} from exposure to carcinogenic compounds and/or an HQ[23] of less than 1 for noncarcinogenic compounds (CDPHE 1994).[24]

The overall risk management goal identified for use in the ERA, as stated in the CRA Methodology, is the following:

> *Site conditions due to residual contamination should not represent significant risk of adverse ecological effects to receptors from exposure to site-related residual contamination.*

The ERA was designed and implemented to determine whether site conditions meet the defined goal.

The outcome of the CRA is the identification of human health contaminants of concern (COCs) and ecological contaminants of concern (ECOCs) and the estimated risk posed by each of the COCs and ECOCs.

ECOCs that present significant risk of adverse ecological effects, as determined in the CRA, and COCs that contribute risk greater than 1×10^{-6} or an HI greater than 1 are evaluated further in Section 8.0, Contaminant Fate and Transport.

1.4.4 Contaminant Fate and Transport

Section 8.0 contains a discussion on contaminant fate and transport. This section was not required as an individual task in the RI/FS Work Plan; however, Task 14, Detailed Analysis of Alternatives, requires the evaluation of alternatives to consider predicted contaminant fate and transport over time. Under CERCLA, results of the site physical

[23] An HI represents a summation of values for multiple analytes; an HQ represents the value for a single analyte.

[24] CDPHE guidance requires evaluation of contaminant concentrations on a SWMU or release site basis. As discussed in Section 1.2.3, this was implemented at RFETS on an IHSS-by-IHSS basis during the accelerated action process. As noted in the text, by addressing cumulative impacts from multiple release sites, the CRA's EU approach complements, but does not supplant, the CHWA emphasis on individual release sites. Because the parties had anticipated using institutional controls consistent with the anticipated future use of the site, CDPHE determined that a post-remediation analysis of residual risk on a release site basis was not necessary.

characteristics, source characteristics, and extent of contamination analyses are combined in the analyses of contaminant fate and transport (EPA 1988).

Section 8.0 uses information about the site physical characteristics, contaminant source characteristics, and contaminant distribution across the site to develop a conceptual understanding of the dominant transport processes that affect the migration of different contaminants in various RFETS environmental media. For reference, the text also provides general background information on the physical, chemical, and biological processes that influence contaminant migration. While this evaluation addresses contaminant fate and transport in surface soil, subsurface soil, groundwater, surface water, sediment, and air, the primary focus, consistent with the RFCA objectives, is evaluating the potential for contaminants from any medium to impact surface water quality (Section 1.2.1).

Evaluation of a contaminant's fate and transport is based upon two criteria: (1) does a complete migration pathway exist based on an evaluation of contaminant transport in each environmental medium, and (2) is there a potential impact to surface water quality based on an evaluation of data at representative groundwater and surface water locations in the creek drainages.

Section 8.0 focuses on contaminants that were identified as AOIs for each medium identified through the nature and extent evaluation process, COCs that contribute risk greater than 1×10^{-6} to a WRW or an HI greater than 1, and ECOCs that present significant risk of adverse ecological effects.

1.4.5 Conclusions of the RCRA Facility Investigation - Remedial Investigation

Conclusions of the RI are presented in Section 9.0.

1.4.6 Corrective Measures Study – Feasibility Study

Pursuant to CDPHE policy and guidance, individual release sites with hazardous constituent contamination levels that correspond to a cancer risk exceeding 1×10^{-6} or an HQ greater than 1 for the anticipated user require a CMS to identify appropriate corrective actions to protect human health and the environment. Corrective actions include treatment, removal, and physical or institutional controls. As agreed by the RFCA Parties, the nature and extent sections (Sections 3.0 through 5.0) of the RI/FS Report include the confirmation sample results for all IHSSs to allow evaluation of RCRA/CHWA contaminant concentrations above levels that correspond to a cancer risk of 1×10^{-6} or an HQ of 0.1 to a WRW.[25] The CRA Methodology specified that the evaluation of concentrations of contaminants be conducted on an EU basis rather than on an individual release site basis. The CRA's EU perspective complements the individual release site approach under CHWA guidance and provides additional information to guide selection of final corrective measures.

[25] The RFCA Parties agreed to base the HQ on 0.1 rather than 1.0 to account for potential cumulative effects of multiple contaminants.

Pursuant to CERCLA, the nature and extent of contamination, results of the CRA, and contaminant fate and transport evaluations are used to assess the extent to which residual contamination may pose a threat to human health and the environment. Specific areas (by medium and contaminant) are identified and brought forward for evaluation in the FS.

The FS identifies remedial action objectives (RAOs), ARARs, and alternatives designed to achieve the RAOs and ARARs. The alternatives are evaluated against nine[26] criteria specified by EPA in 40 CFR 300.430(e)(9).

1.4.7 Remedial Action Objectives

Section 10.0 contains the RAOs and ARARs developed in consultation with EPA and CDPHE and was completed in accordance with RI/FS Work Plan Tasks 1, 3, and 4. Accordingly, this section identifies ARARs for site closure. While ARARs are not final until a final remedy has been selected in the CAD/ROD, it is anticipated that the identified ARARs will inform the regulatory agencies' ultimate ARARs decision. RAOs are the contaminant- and medium-specific goals designed to protect human health and the environment. These RAOs are used to develop PRGs that provide an acceptable contaminant level for each environmental medium. During the detailed analysis of alternatives, remedial alternatives for final action are evaluated, in part, based on their ability to achieve the PRGs. When the preferred final action is selected in the CAD/ROD, the PRGs will become remediation goals, and will be modified, if necessary, based on additional information presented in the RI/FS. The surface water RAOs define the cleanup goals for this environmental medium, and define water quality parameters and standards to be met, POCs, and how compliance is to be demonstrated (DOE 2002a).

1.4.8 Detailed Analysis of Alternatives

Section 11.0 contains the detailed analysis of alternatives that was completed in accordance with RI/FS Work Plan Task 14. Accordingly, this section includes a detailed analysis of at least three remedial alternatives applicable to final closure of the site after completion of accelerated actions. The detailed analysis evaluates the alternatives against the nine CERCLA criteria, and takes into consideration long-term stewardship. The evaluation of the alternatives considers predicted contaminant fate and transport over time (DOE 2002a).

1.5 References

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Table 1.1
IAG OUs (January 1991)

Table 1.2
RFCA OU Consolidation Plan (July 1996)

Table 1.3
Final RFCA OUs (April 2004)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

Table 1.5
Building Disposition

Figure 1.1
Location of Rocky Flats Environmental Technology Site (RFETS)

Figure 1.2
Buffer Zone IHSSs and PACs

Figure 1.3
Industrial Area IHSSs, PACs, and UBC Sites

Figure 1.4
Approximate Locations of PICs

Figure 1.5
IHSS Disposition Flow Chart

Figure 1.6
Building Disposition Flow Chart

TABLES

Table 1.1
IAG OUs (January 1991)

OU Number	Description	Included IHSSs	LRA
1	881 Hillside Area	102, 103, 104, 105.1, 105.2, 106, 107, 119.1, 119.2, 130, and 145	EPA and CDPHE
2	903 Pad, Mound, and East Trenches Area	108, 109, 110, 111.1-111.8, 112, 113, 140, 153, 154, 155, 183, 216.2, and 216.3	EPA and CDPHE
3	Off-site Areas	199, 200, 201, and 202	EPA
4	Solar Evaporation Ponds	101	CDPHE
5	Woman Creek	115, 133.1-133.6, 142.10, 142.11, and 209	EPA
6	Walnut Creek	141, 142.1-142.9, 142.12, 143, 165, 166.1-166.3, 167.1-167.3, and 216.1	EPA
7	Present Landfill	114 and 203	CDPHE
8	700 Area	118.1, 118.2, 123.1, 123.2, 125, 126.1, 126.2, 127, 132, 135, 137, 138, 139.1, 139.2, 144, 146.1-146.6, 149, 150.1-150.8, 151, 159, 163.1, 163.2, 172, 173, 184, and 188	EPA and CDPHE
9	Original Process Waste Lines	121	CDPHE
10	Other Outside Closures	124, 124.1-124.3, 129, 170, 174, 175, 176, 177, 181, 182, 205, 206, 207, 208, 210, 213, and 214	CDPHE
11	West Spray Field	168	CDPHE
12	400/800 Area	116.1, 116.2, 120.1, 120.2, 136.1-136.3, 147.1, 147.2, 157.2, 187, and 189	CDPHE
13	100 Area	117.1-117.3, 122, 128, 134, 148, 152, 157.1, 158, 169, 171, 186, 190, and 191	CDPHE
14	Radioactive Sites	131, 156, 156.1, 156.2, 156, 160, 161, 162, 164, 164.1, 164.2, and 164.3	EPA
15	Inside Building Closures	178, 179, 180, 204, 211, 212, 215, and 217	CDPHE
16	Low-Priority Sites	185, 192, 193, 194, 195, 196, and 197	CDPHE

Table 1.2
RFCA OU Consolidation Plan (July 1996)

IAG OU	RFCA OU	Description	Consisting of	LRA
1	1	881 Hillside Area	Current OU 1 IHSSs	EPA
2	BZ	903 Pad, Mound, and East Trenches Area	All IHSSs from OU 2	EPA
3	3	Off-Site Areas	Current OU 3 IHSSs	EPA
4	IA	Solar Evaporation Ponds	All IHSSs from OU 4	CDPHE
5	5	Woman Creek	Current OU 5 IHSSs except IHSSs 115 and 196 (Original Landfill), which are part of the IA OU	EPA
6	6	Walnut Creek	Current OU 6 IHSSs except IHSSs 143 (Old Outfall) and 165 (Triangle Area), which are part of the IA OU	EPA CDPHE for IHSSs part of IA
7	7	Present Landfill	Current OU 7 IHSSs	EPA
8	IA	700 Area	All IHSSs from OU 8	CDPHE
9	IA	Original Process Waste Lines	All IHSSs from OU 9	CDPHE
10	IA	Other Outside Closures	Current OU 10 IHSSs except IHSSs 170, 174a, and 174b (PU&D Yard), which are part of the BZ OU	CDPHE EPA for IHSSs part of BZ
11	11	West Spray Field	CAD/ROD completed	CDPHE
12	IA	400/800 Area	Current OU 12 IHSSs	CDPHE
13	IA	100 Area	Current OU 13 IHSSs	CDPHE
14	IA	Radioactive Sites	Current OU 14 IHSSs	CDPHE
15	15	Inside Building Closures	CAD/ROD completed	CDPHE
16	16	Low-Priority Sites	CAD/ROD completed	CDPHE

Table 1.3
Final RFCA OUs (April 2004)

Former RFCA OU	Final RFCA OU	Description	Consisting of	LRA
1	1	881 Hillside Area	Current OU 1 IHSSs; CAD/ROD completed	EPA
3	3	Off-Site Areas	Current OU 3 IHSSs; CAD/ROD completed	EPA
11	11	West Spray Field	Current OU 11 IHSSs; CAD/ROD completed	CDPHE
15	15	Inside Building Closures	Current OU 15 IHSSs; CAD/ROD completed	CDPHE
16	16	Low-Priority Sites	Current OU 16 IHSSs; CAD/ROD completed	CDPHE
IA	IA	IHSSs located within the IA	All current IHSSs associated with OUs 4, 8, 9, 12, 13, and 14; IHSSs 115 and 196 from OU 5; IHSSs 143 and 165 from OU 6; plus all OU 10 IHSSs except IHSSs 170, 174a, and 174b	CDPHE
BZ and OUs 5, 6, and 7	BZ	IHSSs located within the BZ	All current IHSSs associated with OUs 2 and 5 except IHSSs 115 and 196; OU 6 except IHSSs 143 and 165; OU 7; and IHSSs 170, 174a, and 174b from OU 10	EPA

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
101	000-1	000-101	4	IA	IA	207 Solar Evaporation Ponds			06/01/03 (07/25/03)	I101-A-000310 (I101-A-000319)
102		800-102	1	1	1	Oil Sludge Pit	Feb-97 OU1 CAD/ROD	OU01-A-001366		
103		800-103	1	1	1	Chemical Burial	Feb-97 OU1 CAD/ROD	OU01-A-001366		
104		800-104	1	1	1	Liquid Dumping	Feb-97 OU1 CAD/ROD	OU01-A-001366		
105.1		800-105.1	1	1	1	Bldg. 881 Westernmost Out of Service Fuel Tanks	Feb-97 OU1 CAD/ROD	OU01-A-001366		
105.2		800-105.2	1	1	1	Bldg. 881 Easternmost Out of Service Fuel Tanks	Feb-97 OU1 CAD/ROD	OU01-A-001366		
106		800-106	1	1	1	Bldg. 881, Outfall	Feb-97 OU1 CAD/ROD	OU01-A-001366		
107		800-107	1	1	1	Bldg. 881, Hillside Oil Leak	Feb-97 OU1 CAD/ROD	OU01-A-001366		
108		900-108	2	BZ	BZ	Trench T-1	2000 HRR (02/14/02)	SW-A-004154 (SW-A-004766)		
109	NE-2	900-109	2	BZ	BZ	Trench T-2 - Ryan's Pit	1997 HRR (09/26/02)	SW-A-002435 (BZ-A-000557)		
110		NE-110	2	BZ	BZ	Trench T-3	05/21/03 (06/12/03) 03/08/05 (03/07/05)	BZ-A-000594 (OU05-A-000718) BZ-A-000823 (BZ-A-000789)		
111.1		NE-111.1	2	BZ	BZ	Trench T-4	05/21/03 (06/12/03) 03/08/05 (03/07/05)	BZ-A-000594 (OU05-A-000718) BZ-A-000823 (BZ-A-000790)		
111.2	900-12	NE-111.2	2	BZ	BZ	Trench T-5			02/23/05 (02/23/05)	BZ-A-000813 (BZ-A-000907)
111.3	900-12	NE-111.3	2	BZ	BZ	Trench T-6			02/23/05 (02/23/05)	BZ-A-000813 (BZ-A-000907)
111.4	NE-2	NE-111.4	2	BZ	BZ	Trench T-7	05/21/03 (06/12/03) 02/01/05 (02/23/05)	BZ-A-000593 (OU05-A-000718) BZ-A-000817 (BZ-A-000910)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
111.5	900-12	NE-111.5	2	BZ	BZ	Trench T-8			02/01/05 (02/23/05)	BZ-A-000813 (BZ-A-000907)
111.6	900-12	NE-111.6	2	BZ	BZ	Trench T-9			02/01/05 (02/23/05)	BZ-A-000813 (BZ-A-000907)
111.7	900-12	NE-111.7	2	BZ	BZ	Trench T-10			02/01/05 (02/23/05)	BZ-A-000813 (BZ-A-000907)
111.8	900-12	NE-111.8	2	BZ	BZ	Trench T-11			02/01/05 (02/23/05)	BZ-A-000813 (BZ-A-000907)
112	900-11	900-112	2	BZ	BZ	903 Pad (IAG Name: 903 Drum Storage Area)			01/01/05 (01/13/05)	BZ-A-000807 (BZ-A-000936)
113		900-113	2	BZ	BZ	Mound Area	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
114	000-5	NW-114	7	7	BZ	Present Landfill			06/22/05 09/15/05 (05/15/06)	BZ-A-000875 BZ-A-000872 (BZ-A-000948)
115	SW-2	SW-115	5	IA	IA	Original Landfill			11/01/05 (05/15/06)	IA-A-002949 (IA-A-002954)
116.1	400-3	400-116.1	12	IA	IA	West Loading Dock, Building 447 (IAG Name: West Loading Dock Area)	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		
116.2	400-3	400-116.2	12	IA	IA	South Loading Dock, Building 444 (IAG Name: South Loading Dock Area)	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		
117.1	500-1	500-117.1	13	IA	IA	North Site Chemical Storage	09/01/04 (09/29/04)	IA-A-002354 (IA-A-002387)		
117.2	500-4	500-117.2	13	IA	IA	Middle Site Chemical Storage	07/29/04 (06/18/04)	IA-A-002236 (IA-A-002495)		
117.3		600-117.3	13	IA	IA	Chemical Storage – South Site	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
118.1	700-3	700-118.1	8	IA	IA	Multiple Solvent Spills West of Building 730			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
118.2	700-3	700-118.2	8	IA	A	Multiple Solvent Spills South End of Building 776			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
119.1		900-119.1	1	1	1	West Scrap Metal Storage Area and Solvent Spill	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
119.2		900-119.2	1	1	1	East Scrap Metal Storage Area and Solvent Spill	Feb-97 OU1 CAD/ROD	OU01-A-001366		
120.1	600-3	600-120.1	12	IA	IA	Fiberglassing Area North of Building 664	05/01/04 (05/12/04)	IA-A-002139 (IA-A-002140)		
120.2	400-10	600-120.2	12	IA	IA	Fiberglassing Area West of Building 664	06/01/03 (07/15/03)	IA-A-001477 (IA-A-001533)		
121	000-2	000-121	9	IA	IA	Original Process Waste Lines			10/13/05 12/08/2005 12/14/05 (10/6/05)	IA-A-002865 IA-A-002911 IA-A-002910 (IA-A-002811)
122	400-8	400-122	9	IA	IA	Underground Concrete Tank			03/01/04 (03/19/04)	IA-A-002027 (IA-A-002021)
123.1		700-123.1	8	IA	IA	Valve Vault 7	2000 HRR (02/14/02)	SW-A-004154 (SW-A-004766)		
123.2	000-2	700-123.2	9	IA	IA	Valve Vault West of Building 707			10/13/05 (10/6/05)	IA-A-002865 (IA-A-002811)
124.1	700-4	700-124.1	9	IA	IA	30,000-Gallon Tank (Tank #68)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
124.2	700-4	700-124.2	9	IA	IA	14,000-Gallon Tank (Tank #66)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
124.3	700-4	700-124.3	9	IA	IA	14,000-Gallon Tank (Tank #67)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
125	700-4	700-125	9	IA	IA	Holding Tank (Tank #66) (This is the same tank identified in IHSS 124.2)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
126.1	700-4	700-126.1	9	IA	IA	Westernmost Out-of-Service Waste Tank			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
126.2	700-4	700-126.2	9	IA	IA	Easternmost Out-of-Service Waste Tank			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
127	000-2	700-127	9	IA	IA	Low-Level Radioactive Waste Leak			10/13/05 (10/6/2005)	IA-A-002865 (IA-A-002811)
128	300-1	300-128	13	IA	IA	Oil Burn Pit No. 1	06/01/03 (06/20/03)	IA-A-001456 (IA-A-001481)	06/01/03 (06/20/03)	IA-A-001456 (IA-A-001481)
129	400-7	400-129	10	IA	IA	Building 443 Oil Leak			12/01/04 (01/10/05)	IA-A-002524 (IA-A-002521)
130		900-130	1	1	1	Contaminated Soil Disposal Area East of Bldg. 881	Feb-97 OU1 CAD/ROD	OU01-A-001366		
131	700-3	700-131	14	IA	IA	Radioactive Site - 700 Area Site #1			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
132	700-3	700-132	9	IA	IA	Radioactive Site - 700 Area Site #4			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
133.1	SW-1	SW-133.1	5	5	BZ	Ash Pit 1	05/20/03 (06/12/03)	OU05-A-000714 (OU05-A-000718)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
133.2	SW-1	SW-133.2	5	5	BZ	Ash Pit 2	05/20/03 (06/12/03)	OU05-A-000714 (OU05-A-000718)		
133.3	SW-1	SW-133.3	5	5	BZ	Ash Pit 3	2001 HRR (02/14/02)	SW-A-004400 (SW-A-004766)		
133.4	SW-1	SW-133.4	5	5	BZ	Ash Pit 4	05/20/03 (06/12/03)	OU05-A-000714 (OU05-A-000718)		
133.5	SW-1	SW-133.5	5	5	BZ	Incinerator Facility			12/18/03 (12/18/03)	BZ-A-000650 (BZ-A-000781)
133.6	SW-1	SW-133.6	5	5	BZ	Concrete Wash Pad			12/18/03 (12/18/03)	BZ-A-000650 (BZ-A-000781)
134N	300-1	300-134N	13	IA	IA	Lithium Metal Destruction Site	06/01/03 (06/20/03)	IA-A-001456 (IA-A-001481)	06/01/03 (06/20/03)	IA-A-001456 (IA-A-001481)
134S	300-2	300-134S	13	IA	IA	Lithium Metal Destruction Site	12/01/04 (12/17/04)	IA-A-002460 (IA-A-002491)		
135		300-135	8	IA	IA	Cooling Tower Blowdown	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
136.1	400-3	400-136.1	12	IA	IA	Cooling Tower Pond West of Building 444 (IAG Name: Cooling Tower Pond Northeast Corner of Building 460)	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		
136.2	400-3	400-136.2	12	IA	IA	Cooling Tower Pond East of Building 444 (IAG Name: Cooling Tower Pond West of Building 460)	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		
137	700-6	700-137	8	IA	IA	Cooling Tower Blowdown Buildings 712 and 713 (IAG Name: Cooling Tower Blowdown Building 774)			10/01/04 (09/29/04)	IA-A-002397 (IA-A-002384)
138	700-7	700-138	8	IA	IA	Cooling Tower Blowdown Building 779			09/30/04 (10/01/04)	IA-A-002395 (IA-A-002357)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
139.1N(a)	700-11	700-139.1N(a)	8	IA	IA	Caustic/Acid Spills Hydroxide Tank Area			02/22/05 (02/04/05)	IA-A-002548 (IA-A-002536)
139.1N(b)	700-4	700-139.1N(b)	8	IA	IA	Caustic/Acid Spills Hydroxide Tank Area			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
139.1S	700-6	700-139.1S	8	IA	IA	Caustic/Acid Spills Hydroxide Tank Area			10/01/04 (09/29/04)	IA-A-002397 (IA-A-002384)
139.2	700-4	700-139.2	8	IA	IA	Caustic/Acid Spills Hydrofluoric Acid Tanks			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
140	900-11	900-140	2	BZ	BZ	Hazardous Disposal Area (IAG Name: Reactive Metal Destruction Site)			01/01/05 (01/13/05)	BZ-A-000809 (BZ-A-000885)
141		900-141	6	6	BZ	Sludge Disposal	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
142.1	NE-1	NE-142.1	6	6	BZ	Pond A-1	10/27/05 (10/18/05)	BZ-A-000899 (BZ-A-000933)		
142.2	NE-1	NE-142.2	6	6	BZ	Pond A-2	10/27/05 (10/18/05)	BZ-A-000899 (BZ-A-000933)		
142.3	NE-1	NE-142.3	6	6	BZ	Pond A-3	10/27/05 (10/18/05)	BZ-A-000899 (BZ-A-000933)		
142.4	NE-1	NE-142.4	6	6	BZ	Pond A-4	10/27/05 (10/18/05)	BZ-A-000899 (BZ-A-000933)		
142.5	NE-1	NE-142.5	6	6	BZ	Pond B-1			05/01/05 06/14/05 (05/12/05)	BZ-A-000843 BZ-A-000856 (BZ-A-000909)
142.6	NE-1	NE-142.6	6	6	BZ	Pond B-2 (PAC NE-1404 overlaps with IHSS 142.6)			05/01/05 06/14/05 (05/12/05)	BZ-A-000843 BZ-A-000856 (BZ-A-000909)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
142.7	NE-1	NE-142.7	6	6	BZ	Pond B-3			05/01/05 06/14/05 (05/12/05)	BZ-A-000843 BZ-A-000856 (BZ-A-000909)
142.8	NE-1	NE-142.8	6	6	BZ	Pond B-4	10/27/05 (10/18/05)	BZ-A-000899 (BZ-A-000933)		
142.9	NE-1	NE-142.9	6	6	BZ	Pond B-5	10/27/05 (10/18/05)	BZ-A-000899 (BZ-A-000933)		
142.10	NE-1	SE-142.10	5	5	BZ	Pond C-1	10/27/05 (10/18/05)	BZ-A-000899 (BZ-A-000933)		
142.11	NE-1	SE-142.11	5	5	BZ	Pond C-2	10/27/05 (10/18/05)	BZ-A-000899 (BZ-A-000933)		
142.12	NE-1	NE-142.12	6	6	BZ	Flume Pond (IAG Name: Newly Identified Pond A-5)	10/27/05 (10/18/05)	BZ-A-000899 (BZ-A-000933)		
143	000-3	700-143	6	IA	IA	Bldg. 771 Outfall	2004 HHR (09/07/04)	SW-A-005018 (IA-A-002305)		
144N	700-3	700-144(N)	8	IA	IA	Sewer Line Overflow (IAG Name: Sewer Line Break)			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
144S	700-3	700-144(S)	8	IA	IA	Sewer Line Overflow (IAG Name: Sewer Line Break)			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
145		800-145	1	1	1	Sanitary Waste Line Leak	Feb-97 OU1 CAD/ROD	OU01-A-001366		
146.1	700-4	700-146.1	9	IA	IA	Concrete Process Waste Tanks 7,500-Gallon Tank (31)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
146.2	700-4	700-146.2	9	IA	IA	Concrete Process Waste Tanks 7,500-Gallon Tank (32)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
146.3	700-4	700-146.3	9	IA	IA	Concrete Process Waste Tanks 7,500-Gallon Tank (34W)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
146.4	700-4	700-146.4	9	IA	IA	Concrete Process Waste Tanks 7,500-Gallon Tank (34E)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
146.5	700-4	700-146.5	9	IA	IA	Concrete Process Waste Tanks 3,750-Gallon Tank (30)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
146.6	700-4	700-146.6	9	IA	IA	Concrete Process Waste Tanks 3,750-Gallon Tank (33)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
147.1	000-2	700-147.1	9	IA	IA	Process Waste Line Leaks (IAG Name: Maas Area)			10/13/05 12/08/2005 12/14/05 (10/6/05)	IA-A-002865 IA-A-002911 IA-A-002910 (IA-A-002811)
147.2		800-147.2	12	IA	IA	Bldg. Conversion Activity Contamination Area	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
148	100-4	100-148	13	IA	IA	Waste Spills			03/01/03 05/12/03 (04/22/03)	IA-A-001309 IA-A-001412 (IA-A-001389)
149.1	000-2	700-149.1	9	IA	IA	Effluent Pipe			10/13/05 (10/6/2005)	IA-A-002865 (IA-A-002811)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
149.2	700-7	700-149.2	9	IA	IA	Effluent Pipe			09/30/04 (10/01/04)	IA-A-002395 (IA-A-002357)
150.1	700-4	700-150.1	8	IA	IA	Radioactive Site North of Building 771 (IAG Name: Radioactive Leak North of Building 771)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
150.2(N)	700-4	700-150.2(N)	8	IA	IA	Radioactive Site West of Building 771 (IAG Name: Radioactive Leak West of Building 771)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
150.2(S)	700-3	700-150.2(S)	8	IA	IA	Radioactive Site West of Building 776 (IAG Name: Radioactive Leak West of Building 771)			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
150.3	700-4	700-150.3	8	IA	IA	Radioactive Site Between Buildings 771 & 774 (IAG Name: Radioactive Leak Between Buildings 771 & 774)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
150.4	700-3	700-150.4	8	IA	IA	Radioactive Site Northwest of Building 750 (IAG Name: Radioactive Leak East of Building 750)			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
150.5		700-150.5	8	IA	IA	Radioactive Site West of Building 707 (IAG Name: Radioactive Leak West of Building 707)	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
150.6	700-7	700-150.6	8	IA	IA	Radioactive Site South of Building 779 (IAG Name: Radioactive Leak South of Building 779)			09/30/04 (10/01/04)	IA-A-002395 (IA-A-002357)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
150.7	700-3	700-150.7	8	IA	IA	Radioactive Site South of Building 776 (IAG Name: Radioactive Leak South of Building 776)			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
150.8	700-7	700-150.8	8	IA	IA	Radioactive Site Northeast of Building 779 (IAG Name: Radioactive Leak Northeast of Building 779)			09/30/04 (10/01/04)	IA-A-002395 (IA-A-002357)
151		300-151	8	IA	IA	Tank 262 Fuel Oil Spills	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
152		600-152	13	IA	IA	Fuel Oil Tank 221 Spills	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
153	900-2	900-153	2	BZ	BZ	Oil Burn Pit No. 2			06/01/05 (06/13/05)	BZ-A-000863 (BZ-A-000908)
154	900-2	900-154	2	BZ	BZ	Pallet Burn Site			06/01/05 (06/13/05)	BZ-A-000863 (BZ-A-000908)
155	900-11	900-155	2	BZ	BZ	903 Lip Area			01/01/05 (01/13/05)	BZ-A-000809 (BZ-A-000885)
156.1		300-156.1	14	IA	IA	Building 371 Parking Lot	2000 HRR (02/14/02)	SW-A-004154 (SW-A-004766)		
156.2		NE-156.2	6	6	BZ	Soil Dump Area Between the A- and B-Series Drainages	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
157.1	400-7	400-157.1	13	IA	IA	Radioactive Site North Area			12/01/04 (01/10/05)	IA-A-002524 (IA-A-002521)
157.2	400-6	400-157.2	12	IA	IA	Radioactive Site South Area	09/01/04 (09/29/04)	IA-A-002380 (IA-A-002388)		
158	500-2	500-158	13	IA	IA	Radioactive Site - Building 551			07/29/04 (06/18/04)	IA-A-002242 (IA-A-002183)
159	500-3	500-159	9	IA	IA	Radioactive Site - Building 559			06/01/05 (06/24/05)	IA-A-002831 (IA-A-002687)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
160	600-4	600-160	14	IA	IA	Radioactive Site Building 444 Parking Lot			12/01/04 (12/23/04)	IA-A-002488 (IA-A-002469)
161	400-10	600-161	14	IA	IA	Radioactive Site - Building 664	06/01/03 (07/15/03)	IA-A-001477 (IA-A-001533)		
162	000-2	000-162	14	IA	IA	Radioactive Site - 700 Area Site # 2			10/13/05 (10/6/05)	IA-A-002865 (IA-A-002811)
163.1	700-4	700-163.1	8	IA	IA	Radioactive Site 700 Area Site No.3 Wash Area			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
163.2	700-4	700-163.2	8	IA	IA	Radioactive Site 700 Area Site No.3 Buried Slab			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
164.1		600-164.1	14	IA	IA	Radioactive Slab from Bldg. 771	2000 HRR (02/14/02)	SW-A-004154 (SW-A-004766)		
164.2	800-4	800-164.2	14	IA	IA	Radioactive Site 800 Area Site #2, Building 886 Spills			05/01/03 (05/15/03)	IA-A-001436 (IA-A-001423)
164.3	800-6	800-164.3	14	IA	IA	Radioactive Site 800 Area Site #2, Building 889 Storage Pad			03/01/03 (03/25/03)	IA-A-001329 (IA-A-001351)
165	000-1	900-165	6	IA	IA	Triangle Area			06/01/03 (07/25/03)	I101-A-000310 (I101-A-000319)
166.1		NE-166.1	6	6	BZ	Trench A	1996 HRR (02/14/02)	SW-A-002448 (SW-A-004766)		
166.2		NE-166.2	6	6	BZ	Trench B	1996 HRR (02/14/02)	SW-A-002448 (SW-A-004766)		
166.3		NE-166.3	6	6	BZ	Trench C	1996 HRR (02/14/02)	SW-A-002448 (SW-A-004766)		
167.1		NE-167.1	6	6	BZ	Landfill North Area Spray Field	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
167.2		NE-167.2	6	6	BZ	Pond Area Spray Field (Center Area)	1996 HRR (02/14/02)	SW-A-002448 (SW-A-004766)		
167.3		NE-167.3	6	6	BZ	South Area Spray Field	1996 HRR (02/14/02)	SW-A-002448 (SW-A-004766)		
168		000-168	11	11	11	West Spray Field	Sep-95 OU11 CAD/ROD	OU11-A-000184		
169		500-169	13	IA	IA	Waste Drum Peroxide Burial	1998 HRR (02/20/04)	SW-A-002770 (IA-A-001990)		
170		NW-170	10	BZ	BZ	PU&D Storage Yard - Waste Spills	1999 HRR (09/26/02)	SW-A-003379 (BZ-A-000557)		
171	300-1	300-171	13	IA	IA	Solvent Burning Ground			06/01/03 (06/20/03)	IA-A-001456 (IA-A-001481)
172		000-172	8	IA	IA	Central Avenue Waste Spill	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
173	900-1	900-173	8	IA	IA	South Dock - Building 991 (IAG Name: Radioactive Site - 900 Area)			04/01/04 (03/31/04)	IA-A-002056 (IA-A-002044)
174A	NE/NW	NW-174A	10	BZ	BZ	PU&D Yard Container Storage Area	09/01/03 (10/07/03)	BZ-A-000631 (BZ-A-000634)		
174B		NW-174B	10	BZ	BZ	PU&D Container Storage Facilities	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
175	900 Area	900-175	10	IA	IA	S&W Building 980 Container Storage Facility	07/01/03 08/06/03 (07/23/03)	IA-A-001512 IA-A-001570 (IA-A-001556)		
176	000-1	900-176	10	IA	IA	S&W Contractor Storage Yard			06/01/03 (07/25/03)	I101-A-000310 (I101-A-000319)
177	800-5	800-177	10	IA	IA	Building 885 Drum Storage and Paint Storage (IAG Name: Building 885 Drum Storage Area)	07/29/04 (06/21/04)	IA-A-002240 (IA-A-002182)		
178		800-178	15	15	15	Building 881 Drum Storage Area	Aug-95 OU15 CAD/ROD	OU15-A-000273 OU15-A-000274		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
179		800-179	15	15	15	Building 865 Drum Storage; refer to OU 15 CAD/ROD)	2001 HRR (02/14/02)	SW-A-004400 (SW-A-004766)		
180		800-180	15	15	15	Building 883 Drum Storage; refer to OU 15 CAD/ROD)	2001 HRR (02/14/02)	SW-A-004400 (SW-A-004766)		
181		300-181	10	IA	IA	Building 334 Cargo Container Area	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
182	400-3	400-182	10	IA	IA	Building 444/453 Drum Storage Area	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		
183		900-183	2	BZ	BZ	Gas Detoxification Area	2000 HRR (02/14/02)	SW-A-004154 (SW-A-004766)		
184	900-1	900-184	8	IA	IA	Building 991 Steam Cleaning Area			04/01/04 (03/31/04)	IA-A-002056 (IA-A-002044)
185		700-185	16	16	16	Solvent Spill	Aug-94 OU16 CAD/ROD	OU16-A-000164		
186	500-1	300-186	13	IA	IA	Valve Vault 12	09/01/04 (09/29/04)	IA-A-002354 (IA-A-002387)		
187	400-7	400-187	12	IA	IA	Sulfuric Acid Spill (IAG Name: Acid Leaks [2])			12/01/04 (01/10/05)	IA-A-002524 (IA-A-002521)
188		300-188	8	IA	IA	Acid Leak	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
189		600-189	12	IA	IA	Nitric Acid Tanks	2001 HRR (09/26/02)	SW-A-004400 (BZ-A-000557)		
190	000-3	000-190	13	IA	IA	Caustic Leak (also referred to as Central Avenue Ditch)	07/14/04 (07/09/04)	IA-A-002221 (IA-A-002207)		
191		400-191	13	IA	IA	Hydrogen Peroxide Spill	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
192		000-192	16	16	16	Antifreeze Discharge	Aug-94 OU16 CAD/ROD	OU16-A-000164		
193		400-193	16	16	16	Steam Condensate Leak	Aug-94 OU16 CAD/ROD	OU16-A-000164		
194		700-194	16	16	16	Steam Condensate Leak	Aug-94 OU16 CAD/ROD	OU16-A-000164		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
195		NW-195	16	16	16	Nickel Carbonyl Disposal	Aug-94 OU16 CAD/ROD	OU16-A-000164		
196	SW-2	SW-196	5/16	IA	IA	Water Treatment Plant Backwash Pond			11/01/05 (05/15/06)	IA-A-002949 (IA-A-002954)
197	500-1	500-197	16	16	16	Scrap Metal Sites	09/01/04 (09/29/04)	IA-A-002354 (IA-A-002387)		
199		Offsite Area 1	3	3	3	Off-Site Area 1	Apr-97 OU3 CAD/ROD	OU03-A-000551		
200		Offsite Area 2	3	3	3	Great Western Reservoir	Apr-97 OU3 CAD/ROD	OU03-A-000551		
201		Offsite Area 3	3	3	3	Standley Lake	Apr-97 OU3 CAD/ROD	OU03-A-000551		
202		Offsite Area 4	3	3	3	Mower Reservoir	Apr-97 OU3 CAD/ROD	OU03-A-000551		
203		NW-203	7	7	BZ	Inactive Hazardous Waste Storage Area	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
204		400-204	15	15	15	Original Uranium Chip Roaster	1996 HRR (02/14/02)	SW-A-002448 (SW-A-004766)		
205	400-5	400-205	10	IA	IA	Building 460 Sump #3 Acid Side	12/01/04 (12/07/04)	IA-A-002514 (IA-A-002497)		
206	300-5	300-206	10	IA	IA	Inactive D-836 Hazardous Waste Tank	2001 HRR (09/26/02)	SW-A-004400 (BZ-A-000557)		
207	400-3	400-207	10	IA	IA	Inactive 444 Acid Dumpster	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		
208	400-3	400-208	10	IA	IA	Inactive 444/447 Waste Storage Area	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		
209		SE-209	5	5	BZ	Surface Disturbance Southeast of Bldg. 881	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
210		900-210	10	IA	IA	Building 980 Cargo Container, Unit 16	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
211		800-211	15	15	15	Building 881 Drum Storage, Unit 26	Aug-95 OU15 CAD/ROD	OU15-A-000273 OU15-A-000274		
212		300-212	15	15	15	Building 371 Drum Storage Area, Unit 63	1997 HRR (09/26/02)	SW-A-002435 (BZ-A-000557)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
213	900-3	900-213	10	IA	IA	Unit 15, 904 Pad Pondcrete Storage	12/18/03 (12/17/03)	IA-A-001905 (IA-A-001887)		
214	700-8	700-214	10	IA	IA	750 Pad Pondcrete & Saltcrete Storage, Unit 25	12/01/04 (12/17/04)	IA-A-002490 (IA-A-002496)		
215	700-4	700-215	9	IA	IA	Process Waste Tank T-40, Unit 55.13			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972 (B771-A-000219)
216.1		NE-216.1	6	6	BZ	East Spray Fields - North Area	1996 HRR (02/14/02)	SW-A-002448 (SW-A-004766)		
216.2	NE/NW	NE-216.2	2	BZ	BZ	East Spray Field	09/01/03 (10/07/03)	BZ-A-000631 (BZ-A-000634)		
216.3	NE/NW	NE-216.3	2	BZ	BZ	East Spray Field	09/01/03 (10/07/03)	BZ-A-000631 (BZ-A-000634)		
217		800-217	15	15	15	Building 881, CN- Bench Scale Treatment, Unit 32	Aug-95 OU15 CAD/ROD	OU15-A-000273 OU15-A-000274		
N/A	000-3	000-500	N/A	N/A	IA	Sanitary Sewer System	12/09/04 03/01/05 (3/21/2005)	IA-A-002498 IA-A-002567 (IA-A-002568)		
N/A		000-501	N/A	N/A	BZ	Roadway Spraying (originally identified as 000-501 in HRR Qtly Update 4; reassigned as 100-613 in the HRR Qtly Update 7)	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		000-503	N/A	N/A	IA	Solar Pond Water Spill Along Central Avenue (originally identified as 000-503 in HRR Qtly Update No. 4; reassigned as NE-1409 in HRR Qtly Update No. 7)	Q7 HRR (09/26/02)	SW-A-002622 (BZ-A-000557)		
N/A	000-4	000-504	N/A	N/A	IA	New Process Waste Lines			10/13/05 (10/7/05)	IA-A-002878 (IA-A-002816)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A	000-3	000-505	N/A	N/A	IA	Storm Drains	10/06/05 (10/6/05)	IA-A-002851 (IA-A-002812)		
N/A		100-600	N/A	N/A	IA	Mercury Spill-Valve Vault 124-B, Building 124	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		100-601	N/A	N/A	IA	Building 123 Phosphoric Acid Spill	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A	000-2	100-602	N/A	N/A	IA	Building 123 Process Waste Line Break			10/13/05 (10/6/05)	IA-A-002865 (IA-A-002811)
N/A	100-4	100-603	N/A	N/A	IA	Building 123 Bioassay Waste Spill	2001 HRR (02/14/02)	SW-A-004400 (SW-A-004766)		
N/A		100-604	N/A	N/A	BZ	T130 Complex Sewer Line Leaks	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		100-605	N/A	N/A	IA	Building 115 Hydraulic Oil Spill	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		100-606	N/A	N/A	IA	Building 125 TCE Spill	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A	100-3	100-607	N/A	N/A	IA	Building 111 Transformer PCB Leak	2001 HRR (04/12/01)	SW-A-004400 (B111-A-000003)		
N/A		100-608	N/A	N/A	IA	Building 131 Transformer Leak	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
N/A	100-5	100-609	N/A	N/A	IA	Building 121 Security Incinerator			03/01/03 05/12/03 (04/22/03)	IA-A-001309 IA-A-001412 (IA-A-001389)
N/A		100-610	N/A	N/A	IA	Asbestos Release - Building 123	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A	100-4	100-611	N/A	N/A	IA	Building 123 Scrubber Solution Spill			03/01/03 05/12/03 (04/22/03)	IA-A-001309 IA-A-001412 (IA-A-001389)
N/A		100-612	N/A	N/A	IA	Battery Solution Spill - Building 119	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A		100-613	N/A	N/A	BZ	Asphalt Surface in Lay-down Yard North of Building 130 (identified as 000-501 in HRR Quarterly Update No. 4; reassigned as 100-613 in HRR Quarterly Update No. 7)	Q7 HRR (09/26/02)	SW-A-002622 (BZ-A-000557)		
N/A		300-700	N/A	N/A	IA	Scrap Roofing Disposal	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		300-701	N/A	N/A	IA	Sulfuric Acid Spill - Building 371	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A	300-6	300-702	N/A	N/A	IA	Pesticide Shed	07/01/03 (07/21/03)	IA-A-001509 (IA-A-001544)		
N/A		300-703	N/A	N/A	IA	Building 331 North Area	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		300-704	N/A	N/A	IA	Roof Fire, Building 381	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		300-705	N/A	N/A	IA	Potassium Hydroxide Spill North of Building 374	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		300-706	N/A	N/A	IA	Evaporator Tanks North of Building 374	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		300-707	N/A	N/A	IA	Sanitizer Spill	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		300-708	N/A	N/A	IA	Transformers North of Building 371	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		300-709	N/A	N/A	IA	Transformer Leak 334-1	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		300-710	N/A	N/A	IA	Gasoline Spill North of Building 331	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		300-711	N/A	N/A	IA	Nickel-Cadmium Battery Acid Spill Outside of Building 373	Q7 HRR (09/26/02)	SW-A-002622 (BZ-A-000557)		

Table 1.4
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IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A		300-712	N/A	N/A	IA	0.5-Gallon Antifreeze Spilled by Street Sweeper Outside of Building 373	Q7 HRR (09/26/02)	SW-A-002622 (BZ-A-000557)		
N/A		300-713	N/A	N/A	IA	Caustic Spill North of Building 331	Q8 HRR (09/26/02)	SW-A-001193 (BZ-A-000557)		
N/A		300-714	N/A	N/A	IA	Laundry Waste Water Spill from Tank T-803, North of Building 374	Q10 HRR (09/26/02)	SW-A-001548 (BZ-A-000557)		
N/A		300-715	N/A	N/A	IA	Battery Acid Spill	1997 HRR (07/09/99)	SW-A-002435 (SW-A-004157)		
N/A		400-800	N/A	N/A	IA	Transformer 443-1	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
N/A	400-3	400-801	N/A	N/A	IA	Transformer, Roof of Building 447	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		
N/A	600-2	400-802	N/A	N/A	IA	Storage Area, South of Building 334			06/01/03 (06/19/03)	IA-A-001458 (IA-A-001485)
N/A	400-4	400-803	N/A	N/A	IA	Miscellaneous Dumping, Building 460 Storm Drain	08/24/04 (08/23/04)	IA-A-002275 (IA-A-002267)		
N/A	400-4	400-804	N/A	N/A	IA	Road North of Building 460	08/24/04 (08/23/04)	IA-A-002275 (IA-A-002267)		
N/A		400-805	N/A	N/A	IA	Building 443 Tank #9 Leak	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		400-806	N/A	N/A	IA	Catalyst Spill, Building 440	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A	400-10	400-807	N/A	N/A	IA	Sandblasting Area	06/01/03 (07/15/03)	IA-A-001477 (IA-A-001533)		
N/A		400-808	N/A	N/A	IA	Vacuum Pump Leak - Building 442	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		400-809	N/A	N/A	IA	Oil Leak - 446 Guard Post	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A	400-3	400-810	N/A	N/A	IA	Beryllium Fire - Building 444	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		
N/A		400-811	N/A	N/A	IA	Transformer 443-2, Building 443	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
N/A		400-812	N/A	N/A	IA	Tank T-2 Spill in Building 460	2001 HRR (02/14/02)	SW-A-004400 (SW-A-004766)		
N/A	400-5	400-813	N/A	N/A	IA	RCRA Tank Leak in Building 460	12/01/04 (12/07/04)	IA-A-002514 (IA-A-002497)		
N/A		400-814	N/A	N/A	IA	Air Conditioner Compressor Release, Bldg. 444 Roof	Q8 HRR (09/26/02)	SW-A-001193 (BZ-A-000557)		
N/A	400-5	400-815	N/A	N/A	IA	RCRA Tank Leak in Building 460	12/01/04 (12/07/04)	IA-A-002514 (IA-A-002497)		
N/A		500-900	N/A	N/A	IA	Transformer Leak - 515/516	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		500-901	N/A	N/A	IA	Transformer Leak - 555	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		500-902	N/A	N/A	IA	Transformer Leak - 559	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		500-903	N/A	N/A	IA	RCRA Storage Unit #1	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A	500-5	500-904	N/A	N/A	IA	Transformer Leak - 223-1/223-2	05/01/04 (05/17/04)	IA-A-002143 (IA-A-002127)		
N/A		500-905	N/A	N/A	IA	Transformer Leak - 558-1	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A	500-6	500-906	N/A	N/A	IA	Asphalt Surface Near Building 559	07/01/03 (07/16/03)	IA-A-001495 (IA-A-001532)		
N/A	500-7	500-907	N/A	N/A	IA	Tanker Truck Release of Hazardous Waste from Tank 231B	06/01/03 (06/09/03)	IA-A-001438 (IA-A-001470)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A		500-908	N/A	N/A	IA	Oil Released from Air Compressor	Q12 HRR (09/26/02)	SW-A-002591 (BZ-A-000557)		
N/A		500-909	N/A	N/A	IA	Release of Spent Photographic Fixer Solution	1996 HRR (02/14/02)	SW-A-002448 (SW-A-004766)		
N/A		600-1000	N/A	N/A	IA	Transformer Storage Building 662	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A	600-1	600-1001	N/A	N/A	IA	Temporary Waste Storage Building 663			06/01/03 (06/24/03)	IA-A-001467 (IA-A-001484)
N/A		600-1001(a)	N/A	N/A	IA	Waste Oil Identified in PAC-1001	2000 HRR (02/14/02)	SW-A-004154 (SW-A-004766)		
N/A		600-1002	N/A	N/A	IA	Transformer Storage - West of Building 666	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		600-1003	N/A	N/A	IA	Transformers North and South of 661-675 Substation	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A	600-5	600-1004	N/A	N/A	IA	Central Avenue Ditch Cleaning Incident (identified in HRR Quarterly Update No. 6 as 400-820; reassigned as 600-1004 in HRR Quarterly Update No. 7)	07/29/04 (06/18/04)	IA-A-002238 (IA-A-002181)		
N/A	600-6	600-1005	N/A	N/A	IA	Former Pesticide Storage Area	09/01/02 (05/15/03)	SW-A-004669 (SW-A-004801)		
N/A	700-3	700-1100	N/A	N/A	IA	French Drain North of Building 776/777			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
N/A	700-10	700-1101	N/A	N/A	IA	Laundry Tank Overflow - Building 732	09/28/04 (09/21/04)	IA-A-002348 (IA-A-002339)		
N/A		700-1102	N/A	N/A	IA	Transformer Leak - 776-4	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		700-1103	N/A	N/A	IA	Leaking Transformers - Building 707	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		

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IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A		700-1104	N/A	N/A	IA	Leaking Transformers - Building 708	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A	700-7	700-1105	N/A	N/A	IA	Transformer Leak - 779-1/779-2			09/30/04 (10/01/04)	IA-A-002395 (IA-A-002357)
N/A	700-12	700-1106	N/A	N/A	IA	Process Waste Spill - Portal 1	09/01/02 (05/15/03)	SW-A-004669 (SW-A-004800)		
N/A		700-1107	N/A	N/A	IA	Compressor Waste Oil Spill - Building 776	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A	700-11	700-1108	N/A	N/A	IA	771/774 Footing Drain Pond			02/22/05 (02/04/05)	IA-A-002548 (IA-A-002536)
N/A		700-1109	N/A	N/A	IA	Uranium Incident - Building 778	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		700-1110	N/A	N/A	IA	Nickel Carbonyl Burial West of Building 771	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		700-1111	N/A	N/A	IA	Leaking Transformer - Building 750	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		700-1112	N/A	N/A	IA	Leaking Transformer - 776-5	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		700-1113	N/A	N/A	IA	Water Released from 207C Solar Evaporation Pond	Q11 HRR (09/26/02)	SW-A-001560 (BZ-A-000557)		
N/A		700-1114a	N/A	N/A	IA	Release During Liquid Transfer Operations from Bldg. 774	1997 HRR (09/26/02)	SW-A-002435 (BZ-A-000557)		
N/A		700-1114b	N/A	N/A	IA	Release During Liquid Transfer Operations from Bldg. 774	1997 HRR (09/26/02)	SW-A-002435 (BZ-A-000557)		
N/A	700-1	700-1115	N/A	N/A	IA	Identification of Diesel Fuel in Subsurface Soils	09/16/04 (09/14/04)	IA-A-002350 (IA-A-002325)		

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IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A	700-3	700-1116	N/A	N/A	IA	Leaking Transformer South of Building 776			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
N/A		700-1117	N/A	N/A	IA	Building 701 Water Line, Soil Put-back	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
N/A	800-3	800-1200	N/A	N/A	IA	Valve Vault 2			06/13/05 (06/07/05)	IA-A-002705 (IA-A-002684)
N/A	800-3	800-1201	N/A	N/A	IA	Radioactive Site South of Building 883			06/13/05 (06/07/05)	IA-A-002705 (IA-A-002684)
N/A		800-1202	N/A	N/A	IA	Sulfuric Acid Spill, Building 883	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		800-1203	N/A	N/A	IA	Sanitary Sewer Line Break Between Buildings 865 and 886	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A	800-1	800-1204	N/A	N/A	IA	Building 866 Spills			03/01/04 (03/19/04)	IA-A-002031 (IA-A-002022)
N/A	800-2	800-1205	N/A	N/A	IA	Building 881, East Dock	06/01/03 (07/16/03)	IA-A-001442 (IA-A-001523)		
N/A		800-1206	N/A	N/A	IA	Fire, Building 883	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		800-1207	N/A	N/A	IA	Transformer 883-4	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		800-1208	N/A	N/A	IA	Transformer 881-4	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A		800-1209	N/A	N/A	IA	Leaking Transformers, 800 Area	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A	800-1	800-1210	N/A	N/A	IA	Transformers 865-1 and 865-2			03/01/04 (03/19/04)	IA-A-002031 (IA-A-002022)
N/A		800-1211	N/A	N/A	IA	Capacitor Leak, Building 883	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A	800-1	800-1212	N/A	N/A	IA	Building 866 Sump Spill			03/01/04 (03/19/04)	IA-A-002031 (IA-A-002022)
N/A		900-1300	N/A	N/A	IA	RO Plant Sludge Drying Beds	1992 HRR (09/26/02)	SW-A-000378 /9 (BZ-A-000557)		
N/A	900-1	900-1301	N/A	N/A	IA	Building 991 Enclosed Area			04/01/04 (03/31/04)	IA-A-002056 (IA-A-002044)
N/A		900-1302	N/A	N/A	IA	Gasoline Spill	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		900-1303	N/A	N/A	IA	Natural Gas Leak	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		900-1304	N/A	N/A	IA	Chromic Acid Spill - Building 991	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		900-1305	N/A	N/A	IA	Building 991 Roof	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A	900-1	900-1306	N/A	N/A	IA	Transformers 991-1 and 991-2	04/15/04 (05/06/04)	IA-A-002522 (IA-A-002114)		
N/A	900-1	900-1307	N/A	N/A	IA	Explosive Bonding Pit (originally identified as 900-1307 in the 1997 Annual Update to the HRR; reassigned as 900-1318 in the 1998 Annual HRR Update)			04/01/04 (03/31/04)	IA-A-002056 (IA-A-002044)
N/A	900 Area	900-1308	N/A	N/A	IA	Gasoline Spill Outside of Building 980	2001 HRR (02/14/02)	SW-A-004400 (SW-A-004766)		
N/A		900-1309	N/A	N/A	BZ	OU 2 Field Treatability Unit Spill	1999 HRR (06/23/00)	SW-A-003379 (SW-A-004155)		
N/A	000-1	900-1310	N/A	N/A	IA	ITS Water Spill (identified as 000-502 in HRR Quarterly Update No. 2; reassigned 900-1310 in HRR Quarterly Update No. 7)			06/01/03 (07/25/03)	I101-A-000310 (I101-A-000319)
N/A		900-1311	N/A	N/A	IA	Septic Tank East of Building 991	2000 HRR (02/14/02)	SW-A-004154 (SW-A-004766)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A		900-1312	N/A	N/A	IA	OU 2 Water Spill	1999 HRR (06/23/00)	SW-A-003379 (SW-A-004155)		
N/A		900-1313	N/A	N/A	IA	Seep Area Near OU 2 Influent	1999 HRR (06/23/00)	SW-A-003379 (SW-A-004155)		
N/A		900-1314	N/A	N/A	IA	Solar Evaporation Pond 207B Sludge Release	Q9 HRR (09/26/02)	SW-A-001544 (BZ-A-000557)		
N/A		900-1315	N/A	N/A	IA	Tanker Truck Release on East Patrol Road, North of Spruce Ave.	Q11 HRR (09/26/02)	SW-A-001560 (BZ-A-000557)		
N/A		900-1316	N/A	N/A	BZ	Elevated Chromium (total) Identified During Geotechnical Drilling	Q10 HRR (09/26/02)	SW-A-001548 (BZ-A-000557)		
N/A		900-1317	N/A	N/A	IA	Soil Released from Wooden Crate in 964 Laydown Yard	Q11 HRR (09/26/02)	SW-A-001560 (BZ-A-000557)		
N/A		900-1318	N/A	N/A	IA	Release of F001 Listed Waste Water to Soil (identified as 900-1307 in 1997 Annual Update to the HRR; reassigned 900-1318 in 1998 Annual Update to the HRR)	2000 HRR (02/14/02)	SW-A-004154 (SW-A-004766)		
N/A		NE-1400	N/A	N/A	BZ	Tear Gas Powder Release	1992 HRR (12/23/92) (02/14/02)	SW-A-000378 /9 (OU02-A-000672) (SW-A-004766)		
N/A		NE-1401	N/A	N/A	BZ	NE Buffer Zone Gas Line Break	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		NE-1402	N/A	N/A	BZ	East Inner Gate PCB Spill	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A		NE-1403	N/A	N/A	BZ	Gasoline Spill - Building 920 Guard Post	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A		NE-1404	N/A	N/A	BZ	Diesel Spill at Pond B-2 Spillway (PAC NE-1404 overlaps with IHSS 142.6. Originally identified as NE-1404 in HRR Quarterly Update No. 2; reassigned as NE-1405 in HRR Quarterly Update No. 7)	1998 HRR (09/26/02)	SW-A-002770 (BZ-A-000557)		
N/A		NE-1405	N/A	N/A	BZ	Diesel Fuel Spill at Field Treatability Unit (originally identified as NE-1404 in HRR Quarterly Update No. 2; reassigned NE-1405 in HRR Quarterly Update No. 7)	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
N/A		NE-1406	N/A	N/A	BZ	771 Hillside Sludge Release	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
N/A	NE/NW	NE-1407	N/A	N/A	BZ	OU 2 Treatment Facility	09/01/03 (10/07/03)	BZ-A-000631 (BZ-A-000634)		
N/A		NE-1408	N/A	N/A	BZ	OU 2 Test Well (formerly NE-1406)	1999 HRR (06/23/00)	SW-A-003379 (SW-A-004155)		
N/A		NE-1409	N/A	N/A	BZ	Modular Tanks and 910 Treatment System Spill (originally identifed as 000-503 in HRR Quarterly Update No. 4; reassigned as NE-1409 in HRR Quarterly Update No. 7)	2000 HRR (02/14/02)	SW-A-004154 (SW-A-004766)		
N/A		NE-1410	N/A	N/A	BZ	Diesel Fuel Spill at Field Treatability Unit	Q7 HRR (09/26/02)	SW-A-002622 (BZ-A-000557)		
N/A		NE-1411	N/A	N/A	BZ	Diesel Fuel Overflowed from Tanker at OU 2 Field Treatability Unit	Q7 HRR (09/26/02)	SW-A-002622 (BZ-A-000557)		
N/A	NE/NW	NE-1412	N/A	N/A	BZ	Trench T-12 Located in OU 2 East Trenches	09/01/03 (10/07/03)	BZ-A-000631 (BZ-A-000634)		
N/A	NE/NW	NE-1413	N/A	N/A	BZ	Trench T-13 Located in OU 2 East Trenches	09/01/03 (10/07/03)	BZ-A-000631 (BZ-A-000634)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A		NW-1500	N/A	N/A	BZ	Diesel Spill at PU&D Yard (originally identifed as NW-175 in HRR Quarterly Update No. 3; reassigned as NW-1500 in HRR Quarterly Update No. 7)	1998 HRR (07/09/99)	SW-A-002770 (SW-A-004156)		
N/A	NE/NW	NW-1501	N/A	N/A	BZ	Asbestos Release at PU&D Yard (originally identified as NW-176 in HRR Quarterly Update No. 3; reassigned as NW-1501 in HRR Quarterly Update No. 7)	1999 HRR (06/23/00)	SW-A-003379 (SW-A-004155)		
N/A		NW-1502	N/A	N/A	BZ	Improper Disposal of Diesel-Contaminated Material at Landfill (originally identifed as NW-177 in HRR Quarterly Update No. 2; reassigned as NW-1502 in HRR Quarterly Update No. 7)	Q7 HRR (02/14/02)	SW-A-002622 (SW-A-004766)		
N/A		NW-1503	N/A	N/A	BZ	Improper Disposal of Fuel-Contaminated Material at Landfill	Q7 HRR (02/14/02)	SW-A-002622 (SW-A-004766)		
N/A		NW-1504	NA	NA	BZ	Improper Disposal of Thorosilane-Contaminated Material at Landfill	Q7 HRR (09/26/02)	SW-A-002622 (BZ-A-000557)		
N/A	NE-1	NW-1505	N/A	N/A	BZ	North Firing Range			06/01/05 (06/13/05)	BZ-A-000861 (BZ-A-000934)
N/A		SE-1600	N/A	N/A	BZ	Pond 7 - Steam Condensate Releases	1992 HRR (09/26/02)	SW-A-000378 /9 (BZ-A-000557)		
N/A		SE-1601.1	N/A	N/A	BZ	Pond 8 - North [Original Pond 8] (Cooling Tower Discharge Releases)	1992 HRR[b] (09/26/02)	SW-A-000378 /9 (BZ-A-000557)		
N/A		SE-1601.2	N/A	N/A	BZ	Pond 8 - South (Cooling Tower Discharge Releases)	1992 HRR[b] (09/26/02)	SW-A-000378 /9 (BZ-A-000557)		
N/A	900-11	SE-1602	N/A	N/A	BZ	East Firing Range			03/15/05 (02/08/05)	BZ-A-000828 (BZ-A-000798)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A		SW-1700	N/A	N/A	BZ	Fuel Spill into Woman Creek Drainage	1992 HRR (02/14/02)	SW-A-000378 /9 (SW-A-004766)		
N/A	SW-1	SW-1701	N/A	N/A	BZ	Recently Identified Ash Pit (Also referred to as TDEM-1)	2001 HRR (02/14/02)	SW-A-004400 (SW-A-004766)		
N/A	SW-1	SW-1702	N/A	N/A	BZ	Recently Identified Ash Pit (Also referred to as TDEM-2)	05/20/03 (06/12/03)	OU05-A-000714 (OU05-A-000718)		
N/A	100-1	UBC 122	N/A	N/A	IA	Building 122 (UBC 122)	12/01/02 (12/13/04)	IA-A-002466 (IA-A-002472)		
N/A	100-4	UBC 123	N/A	N/A	IA	Building 123 (UBC 123)			03/01/03 05/12/03 (04/22/03)	IA-A-001309 IA-A-001412 (IA-A-001389)
N/A	100-2	UBC 125	N/A	N/A	IA	Building 125 (UBC 125)	2002 HRR (04/02/02)	SW-A-004672 (IA-A-001297)		
N/A	300-2	UBC 331	N/A	N/A	IA	Building 331 (UBC 331)	12/01/04 (12/17/04)	IA-A-002460 (IA-A-002491)		
N/A	300-3	UBC 371	N/A	N/A	IA	Building 371 (UBC 371)	08/01/03 (08/21/03)	IA-A-001572 (IA-A-001611)		
N/A	300-4	UBC 374	N/A	N/A	IA	Building 374 (UBC 374)	08/01/03 (08/21/03)	IA-A-001572 (IA-A-001611)		
N/A	400-1	UBC 439	N/A	N/A	IA	Building 439 (UBC 439)	08/24/04 (08/23/04)	IA-A-002273 (IA-A-002266)		
N/A	400-2	UBC 440	N/A	N/A	IA	Building 440 (UBC 440)	09/22/04 (09/27/04)	IA-A-002356 (IA-A-002351)		
N/A	400-8	UBC 441	N/A	N/A	IA	Building 441 UBC 441)			03/01/04 (03/19/04)	IA-A-002027 (IA-A-002021)
N/A	400-7	UBC 442	N/A	N/A	IA	Building 442 (UBC 442)			12/01/04 (01/10/05)	IA-A-002524 (IA-A-002521)
N/A	400-3	UBC 444	N/A	N/A	IA	Building 444 (UBC 444)	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A	400-3	UBC 447	N/A	N/A	IA	Building 447 (UBC 447)	12/18/03 (12/18/03)	IA-A-001907 (B444-A-000059)		
N/A	500-3	UBC 528	N/A	N/A	IA	Building 528 (UBC 528)			06/01/05 (06/24/05)	IA-A-002831 (IA-A-002687)
N/A	500-3	UBC 559	N/A	N/A	IA	Building 559 (UBC 559)			06/01/05 (06/24/05)	IA-A-002831 (IA-A-002687)
N/A	700-3	UBC 701	N/A	N/A	IA	Building 701 (UBC 701)			05/01/05 06/06/05 (04/19/05)	IA-A-002638 IA-A-002620 (IA-A-002601)
N/A	700-2	UBC 707	N/A	N/A	IA	Building 707 (UBC 707)			03/15/05 (03/15/05)	IA-A-002587 (IA-A-002564)
N/A	700-2	UBC 731	N/A	N/A	IA	Building 731 (UBC 731)			03/15/05 (03/15/05)	IA-A-002587 (IA-A-002564)
N/A	700-5	UBC 770	N/A	N/A	IA	Building 770 UBC 770)	09/29/04 (09/07/04)	IA-A-002344 (IA-A-002304)		
N/A	700-4	UBC 771	N/A	N/A	IA	Building 771(UBC 771)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972) (B771-A-000219)
N/A	700-4	UBC 774	N/A	N/A	IA	Building 774 (UBC 774)			12/18/03 02/11/04 (02/06/04)	IA-A-001876 IA-A-001972) (B771-A-000219)
N/A	700-3	UBC 776	N/A	N/A	IA	Building 776 (UBC 776)			10/01/05 (10/12/05)	IA-A-002870 (B776-A-000305)
N/A	700-3	UBC 777	N/A	N/A	IA	Building 777 (UBC 777)			10/01/05 (10/12/05)	IA-A-002870 (B776-A-000305)
N/A	700-3	UBC 778	N/A	N/A	IA	Building 778 (UBC 778)			10/01/05 (10/12/05)	IA-A-002870 (B776-A-000305)
N/A	700-7	UBC 779	N/A	N/A	IA	Building 779 (UBC 779)			09/30/04 (10/01/04)	IA-A-002395 (IA-A-002357)

Table 1.4
IHSS, PAC, UBC Site, and PIC Disposition

IHSS	IHSS Group	PAC/UBC Site	IAG OU 1/21/91	RFCA Att. 1, 7/19/96	RFCA OU RFCA Att 1&3 4/13/04	Description	Data Summary Report (Approved)[a]	AR No. (Approved)	Closeout Report (Approved)[a]	AR No. (Approved)
N/A	800-1	UBC 865	N/A	N/A	IA	Building 865 (UBC 865)			03/01/04 (03/19/04)	IA-A-002031 (IA-A-002022)
N/A	800-2	UBC 881	N/A	N/A	IA	Building 881 (UBC 881)	06/01/03 (07/16/03)	IA-A-001442 (IA-A-001523)		
N/A	800-3	UBC 883	N/A	N/A	IA	Building 883 (UBC 883)			06/13/05 (06/07/05)	IA-A-002705 (IA-A-002684)
N/A	800-4	UBC 886	N/A	N/A	IA	Building 886 (UBC 886)			05/01/03 (05/15/03)	IA-A-001436 (IA-A-001423)
N/A	800-5	UBC 887	N/A	N/A	IA	Building 887 (UBC 887)	07/29/04 (06/21/04)	IA-A-002240 (IA-A-002182)		
N/A	800-6	UBC 889	N/A	N/A	IA	Building 889 (UBC 889)			03/01/03 (03/25/03)	IA-A-001329 (IA-A-001351)
N/A	900-1	UBC 991	N/A	N/A	IA	Building 991 (UBC 991)			04/01/04 (03/31/04)	IA-A-002056 (IA-A-002044)
N/A	N/A	N/A	N/A	N/A	N/A	PICs 1, 2, 3, 5, 7, 8, 10, 12, 13, 16, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 43, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 58, 59, 60, 61	1992 HRR (09/26/02)	SW-A-000378 /9 (BZ-A-000557)		
N/A	N/A	N/A	N/A	N/A	N/A	PICs 4, 6, 9, 11, 14, 15, 17, 18, 41, 42, 44, 47, 57	04/15/04 (04/30/04)	IA-A-002073 (IA-A-002112)		

[a] Generally, the date format is xx/01/xx for reports bearing month/year designations only. Nevertheless, in some instances the approval date will precede the date of the referenced report because the dated report is the FINAL version which was modified to conform to the LRA requirements for approval. "HRR" refers to Historical Release Report update. In some instances an Addendum to the HRR was prepared and approved in place of a Closeout Report.

[b] The 1992 HRR summary of SE-1601 included description of Ponds 7 and 8, operating at different times, as subcategories 1601.1 and 1601.2. All approvals noted were given as to SE-1601 without the subcategory distinction.

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
111	Administration	1	04/12/02	B111-A-000015	N/A	N/A
111B	Guard Post-closed, relocated east of 663 (awaiting PU&D)	1	5/21/02	IA-A-000984	N/A	N/A
112	External Dosimetry	1	4/9/03 2/26/04	IA-A-001362 IA-A-001996	N/A 04/26/05	N/A IA-A-002605
113	Office Medical (former Guard Post)	N/A	see B 123	Note [a]		
114	Bus Stop/Car Pool Shelter	N/A	see B 123	Note [a]		
115	Office and EOC Building	1	10/14/04	IA-A-002361	N/A, 11/17/04	N/A, IA-A-002478
116	Office Building	1	12/15/03	IA-A-001880	N/A, 01/06/04	N/A, IA-A-001915
119	WSLLC Fitness Center	1	05/05/04	IA-A-002119	N/A, 06/26/04	N/A, IA-A-002193
120	West Access Guard Post	1	08/02/05	IA-A-002782	N/A	N/A
120A	SPO Shelter (west of 120B) (was 773S)	1	08/02/05	IA-A-002782	N/A	N/A
120B	Vehicle Search Facility-West **(CONTINUING MISSION)**	1	N/A	N/A	N/A	N/A
121	WSLLC Plant Protection	1	11/03/04	IA-A-002447	N/A, 12/6/04	N/A, IA-A-002461
122	Occupational Health - Medical	2	11/18/04	IA-A-002440	08/25/05	IA-A-002888
122S	Emergency Power Switchgear/Shredder Plant	1	11/18/04	IA-A-002440	08/25/05	IA-A-002888
123	Health Physics/Analytical Labs	N/A	02/01/99	B123-A-000108	4/11/06 [a]	IA-A-002942
123S	Hazardous Waste Storage	N/A	see B 123	Note [a]		
124	Water Treatment Plant	1	05/10/05	IA-A-002630	N/A	N/A
125	Standards Lab (demolished)	1	10/17/02	IA-A-001132	N/A, 10/14/03	N/A, IA-A-001705
126	Source Calibration and Storage Building	1	10/21/03	IA-A-001842	N/A, 12/04/03	N/A, IA-A-001845
127	Emergency Generator Building (121)	1	11/03/04	IA-A-002447	N/A, 12/6/04	N/A, IA-A-002461
128	Vehicle Shelter (Plant Protection)	1	08/18/04	IA-A-002264	N/A, 8/31/04	N/A, IA-A-002289
129	Raw Water Strainer	1	05/10/05	IA-A-002630	N/A	N/A
130	Engineering Support Administration Building	1	06/22/04	IA-A-002187	N/A, 08/02/04	N/A, IA-A-002250
131	Training	1	06/22/04	IA-A-002189	N/A, 08/02/04	N/A, IA-A-002250
133	130 Guard Post	1	Note [b]		N/A, 4/11/06	N/A, IA-A-002942
181	Meteorological Tower Support Building Woman Creek (abandoned pre-1992)	1	04/29/02	BZ-A-000545	N/A	N/A
223	Nitrogen Supply Facility, Includes Storage Tanks 233, 234	1	10/13/04	IA-A-002370	N/A	N/A
223A	Environmental Restoration (ERM) Storage	1	01/14/04	IA-A-001929	N/A, 02/06/04	N/A, IA-A-001968
228A	Drying Bed by 910	2	see B 910			
228B	Drying Bed by 910	2	see B 910			
280	Landfill Support Facility	1	10/31/02	BZ-A-000582	N/A, 03/24/05	N/A, IA-A-002585

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
281	Sanitary Landfill Leachate Valve Building (Part of B280 Facility)	1	09/03/03	IA-A-001620	N/A	N/A
282	Sanitary Landfill Fire Protection Building and 120,000-Gallon Water Tank (Part of B280 Facility)	1	10/31/02	BZ-A-000582	N/A, 03/24/05	N/A, IA-A-002585
284	Sanitary Landfill Leachate Collection	1	10/31/02	BZ-A-000582	N/A, 03/24/05	N/A, IA-A-002585
302	Shoot House	1	05/05/04	IA-A-002132	N/A	N/A
303	Rifle Range	1	12/08/04	IA-A-002482	N/A, 1/3/05	N/A, IA-A-002511
308	Compressor Building (Shooting Range)	1	12/08/04	see B 303	N/A	N/A
308B	Modular Storage Tank Pump House	1	09/22/03	IA-A-001674	N/A	N/A
308D	Central Sump Pump House (Quonset Hut-southeast of Modular Tanks)	1	09/22/03	IA-A-001674	N/A	N/A
	B308E deleted - SPP treatment cell					
331	Fire Station (EGEN Supplied) & Garage & Offices	1	09/01/05	IA-A-002825	N/A	N/A
331G	Vehicle Maintenance Garage Portion	2	09/12/05	IA-A-002721	11/09/05	IA-A-002853
331A	Fire Station Training (Behind 335)	1	12/11/02 01/28/03	IA-A-001209 IA-A-001247	N/A, 11/17/04	N/A, IA-A-002477
331S	Storage	1	07/06/05	IA-A-002745	N/A, 7/25/05	N/A, IA-A-002712
333	Paint Shop and Sand Blast Facility (demolished)	1	04/12/02	B111-A-000015	N/A	N/A
334	General Offices & Maintenance Shop	1	09/09/03 11/10/03	IA-A-001629 IA-A-001955	N/A	N/A
335	Fire Training Building	1	12/11/02 01/28/03	IA-A-001209 IA-A-001247	N/A, 11/17/04	N/A, IA-A-002477
367	Pesticide Storage (was ID 667, located SE corner of 690 yard)	1	01/30/03 12/10/03	IA-A-001261 IA-A-001922	N/A, 11/10/03 N/A, 12/30/03	N/A, IA-A-001804 N/A, IA-A-001903
371	Pu Recovery	3	11/02/05	B371-A-000310	11/21/05	B371-A-00314
372	Guard Post (Portal 2)	1	09/22/03	IA-A-001673	N/A	N/A
372A	Personnel Access Control 371 (PACS 2)	1	09/22/03	IA-A-001673	N/A	N/A
373	Cooling Tower - B374	1	see B 371			
373C	Cooling Tower (replaces old 373 Cooling Tower)	1	see B 371			
374	Liquid Process Waste Treatment - Low Level Pu	3	see B 371			
374A	Carpenter Shop (south of 374)	1	see B 371			
375	Guard Tower T-4	1	10/08/04	IA-A-002376	N/A	N/A
376	Warehouse (was Chem Recovery)	1	see B 371			
377	Air Compressor Building (Production)	1	see B 371			

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
378	Waste Collection Pump House	1	see B 371			
381	Fluorine Building	1	see B 371			
427	Emergency Generator Building (444)	1	7/11/03	B444-A-00051	N/A	N/A
428	Waste Collection Pump House Low Level - Unit 40	1	6/26/03	IA-A-001586	N/A	N/A
439	Building 440 Operations	1	07/18/05	IA-A-002736	N/A	N/A
440	Waste Storage / Shipping east	2	07/01/05	IA-A-002777		
	Waste Storage / Shipping west		09/28/05	IA-A-002788	10/04/05	IA-A-002807
441	Production Support Offices	2	5/27/04	IA-A-002152	06/08/04	IA-A-002167
442L	RAD Ops / Glovebox Center Training	1	10/17/02	IA-A-001131	N/A, 10/14/03	N/A, IA-A-001705
442W	HEPA Filter Warehouse	1	10/17/02	IA-A-001130	N/A, 10/14/03	N/A, IA-A-001705
443	Heating Plant (Steam Plant)	1	10/19/04	IA-A-002391	N/A	N/A
444	Manufacturing Building Depleted Uranium Ops	2	07/01/05	B444-A-000131	10/04/05	B444-A-000133
445	Carbon Storage and Carbon Dust Collector	2	see B 444			
447	Depleted Uranium Manufacturing Building	2	see B 444			
448	Shipping and Uranium Material Storage	2	see B 444			
449	Oil and Paint Storage	1	7/11/03	B444-A-000052	N/A	N/A
449A	Maintenance Annex (northeast of 439)	2	08/11/03	IA-A-001645	10/8/03	IA-A-001708
449C	Maintenance Carpenter Shop (northeast of 439)	1	7/11/03	B444-A-000053	N/A	N/A
450	Filter Plenum Building (south of 444) for B444 Zone 1	2	see B 444			
451	Filter Plenum Building (south of 447) for B447 Zone 2	2	see B 444			
452	Human Resources Office Building	1	10/17/02	IA-A-001112	N/A, 10/14/03	N/A, IA-A-001705
453	Maintenance Storage	2	08/19/03	IA-A-001646	10/8/03	IA-A-001708
454	Cooling Tower - B444 - 800 Tons	1	02/06/04	B444-A-000061	N/A, 04/26/05	N/A, B444-A-000126
455	Filter Plenum (444 Plating Lab) HEPA for 444 Zone 2	2	see B 444			
457	Cooling Tower - B447 - 400 Tons	1	02/06/04	B444-A-000062	N/A, 04/26/05	N/A, B444-A-000126
460	Admin / Waste Storage	1	07/18/05	IA-A-002614	N/A	N/A
462	Cooling Tower B460	1	07/18/05	IA-A-002614	N/A	N/A
515	Electrical Substation 515 - 5,000 KVA	1	04/10/01 06/13/02 pad	B575-A-000006 IA-A-001002	N/A	N/A
516	Electrical Substation 516 - 5,000 KVA	1	04/10/01 06/13/02 pad	B575-A-000006 IA-A-001002	N/A	N/A

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
517	Electrical Substation 517 - 10,000 KVA	1	08/11/05	IA-A-002766	N/A, 8/25/05	IA-A-002893
518	Electrical Substation 518 - 10,000 KVA	1	08/11/05	IA-A-002766	N/A, 8/25/05	IA-A-002893
519	Alarms System Storage (steel framed, composite siding/roof, NW of 566)	1	05/27/05	IA-A-002697	N/A, 6/13/05	N/A, IA-A-002670
520	Switchgear Building for 517/518	1	08/11/05	IA-A-002766	N/A, 8/25/05	IA-A-002893
528	Process Waste Pit (B559) Low Level Liquid	2	see B 559			
549	Fitness Center	1	03/22/04	IA-A-002023	N/A, 03/29/04	N/A, IA-A-002045
550	Guard Tower T-3	1	05/02/02	IA-A-000949	N/A	N/A
551	General Warehouse and Empty Waste Containers	1	11/05/03	IA-A-001799	N/A, 12/17/03	N/A, IA-A-001886
552	Bottle Gas Storage Building	1	11/05/03	IA-A-001797	N/A, 12/17/03	N/A, IA-A-001886
553	Welding Shop & Offices	1	06/27/03	IA-A-001592	N/A	N/A
554	Warehouse Storage & Shipping Dock	1	06/27/03	IA-A-001593	N/A	N/A
556	Plasma Arc Training	1	11/05/03	IA-A-001799	N/A, 12/17/03	N/A, IA-A-001886
557	Guard Post	1	01/14/04	IA-A-001930	N/A, 02/06/04	N/A, IA-A-001968
559	Plutonium Analytical Lab	2	06/07/05	B559-A-000052	09/26/05	B559-A-000056
559A	Accountability Board Shelter	1	Note [b]		N/A, 4/11/06	N/A, IA-A-002942
559-TUN	559-561 Tunnel	2	see B 559			
560	Cooling Tower	1	01/14/04 08/21/02	IA-A-001931 IA-A-001159	N/A, 02/06/04	N/A, IA-A-001968
561	Filter Plenum - B559	2	see B 559			
562	Emergency Generator Building - B561	1	see B 559			
563	Cooling Tower - B559	1	01/14/04	IA-A-001931	N/A, 02/06/04	N/A, IA-A-001968
564	Production Support Office	1	01/03/05	B559-A-000033	N/A, 1/10/05	N/A, B559-A-000037
566	CSS Alarms	2	04/22/04 06/07/04	IA-A-002074 IA-A-002612	06/09/04	IA-A-002166
566B	Carpenter Shop Shed	1	02/23/04	IA-A-002068	N/A, 04/29/04	N/A, IA-A-002111
569	Crate Counter	1	02/03/04 03/10/04	IA-A-001961 IA-A-002015	N/A, 3/21/05	N/A, IA-A-002570
570	Filter Plenum - B569	1	02/03/04 03/10/04	IA-A-001961 IA-A-002015	N/A, 3/21/05	N/A, IA-A-002570
575	Switchgear Building for 515/516	1	04/10/01 06/13/02 pad	B575-A-000006 IA-A-001002	N/A	N/A

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
662	Storage (Plant Power)	1	10/17/02 6/1/2003 (slab)	IA-A-001114 IA-A-001467	N/A, 10/14/03	N/A, IA-A-001705
663	Storage and Shipping	1	10/17/02 6/1/2003 (slab)	IA-A-001113 IA-A-001467	N/A, 10/14/03	N/A, IA-A-001705
664	Waste Storage and Shipping	1	01/08/05	IA-A-002518	N/A, 1/10/05	N/A, IA-A-002520
666	Storage Facility	1	10/24/02	IA-A-001146	N/A, 03/24/05	N/A, IA-A-002585
668	Drum Certification	2	04/01/04	IA-A-002134	05/10/04	IA-A-002141
679	Substation - Replaces 555/558	1	08/11/05	IA-A-002766	N/A	N/A
680	Substation - Replaces 555/558	1	08/11/05	IA-A-002766	N/A	N/A
681	Switchgear Building for 679/680	1	08/11/05	IA-A-002766	N/A, 8/25/05	N/A, IA-A-002893
701	Offices / Warehouse	2	see B 776			
702	Pump House - Tower 712	1	see B 776			
703	Pump House - Cooling Tower 713	1	see B 776			
705	Coatings Lab	2	02/21/05	B705-A-000014	04/19/05	B705-A-000015
706	Closure Project Support Office	1	10/28/04	IA-A-002402	N/A	N/A
707	Plutonium Ops Manufacturing	3	07/19/05	B707-A-000184	11/09/05	B707-A-000188
707S	Storage Shed (T707S)	1	see B 707			
708	Compressor Building	2	see B 707			
709	Cooling Tower - B707 - 4000 Tons	1	see B 707			
709A	Emergency Diesel Pump	1	Note [b]		N/A, 4/11/06	N/A, IA-A-002942
710	Steam Valve House	1	07/21/05	B776-A-000291	N/A	N/A
711	Cooling Tower B707	1	see B 707			
711A	Emergency Diesel Pump - 711 Tower	1	see B 707			
712	Cooling Tower for B776/777/779A	1	07/21/05	B776-A-000291	N/A, 9/29/04	N/A, IA-A-002384
712A	Propane Mix Shed	1	07/21/05	B776-A-000291	N/A	N/A
713	Cooling Tower for B776/777/779A	1	07/21/05	B776-A-000291	N/A, 9/29/04	N/A, IA-A-002384
713A	Valve Pit (east of 713)	1	07/21/05	B776-A-000291	N/A	N/A
714	Hydrofloric (HF) Storage	2	see B 771			
714A	Hydrofloric (HF) Storage	1	see B 771			
714B	Emergency Breathing Air B771	1	see B 771			
715	Emergency Generator #1 B771/774	1	see B 771			
716	Emergency Generator #2 B771/774	1	see B 771			
717	Magnehelic Gauge Building/Sampling Shed	1	see B 771			

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
718	Pump House - Cooling Tower 711	2	see B 707			
727	Emergency Generator - B782	N/A	see B 779			
728	Process Waste Pit - B771	2	see B 771			
729	Filter Plenum & Emergency Generator B779 (Zone 1)	N/A	see B 779			
730	Process Waste Pit - B 776	2	see B 776			
731	Process Waste Pit B707 Plenum Deluge	2	see B 707			
732	Laundry Waste Pit - B778	2	see B 707			
750	Offices and Cafeteria	1	10/14/04	IA-A-002363	N/A, 11/17/04	N/A, IA-A-002478
761	Guard Tower	1	05/02/02	IA-A-000949	N/A	N/A
762	Guard Post Portal 1 (Central and 9th)	1	05/02/02	IA-A-000949	N/A	N/A
762A	Personnel Access Control 707 (PACS 1)	1	05/02/02 10/15/01	IA-A-000949 IA-A-000841	N/A	N/A
763	South Breezeway (Portal 1 to 750)	1	01/03/05	IA-A-002517	N/A, 1/4/05	N/A, IA-A-002515
764	PIDAS Support	1	08/09/05	IA-A-002792	N/A	N/A
765	Secondary Alarm	1	08/09/05	IA-A-002792	N/A	N/A
770	774 Maintenance/771 War Room ("Home Depot")	2	see B 771			
771	Plutonium Recovery Facility (including stack)	3	07/01/05	B771-A-000323	09/09/05	B771-A-000324
771A	Corridor F Office Area	1	see B 771	Note [c]	N/A	N/A
771B	Carpenter Shop	1	see B 771	Note [c]	N/A	N/A
771C	Nuclear waste packaging/Drum Counting	2	see B 771			
771TUN	Tunnel between B771 and B776	3	see B771			
772	HF Acid Storage	1	see B 771	Note [c]	N/A	N/A
772A	Acid Storage (southeast of B771)	1	see B 771	Note [c]	N/A	N/A
773	Guard Post (old name-Incident Command Center)	1	see B 771	Note [c]	N/A	N/A
774	Liquid Waste Treatment Plant - 771 Plutonium Ops	3	see B 771			
775	Sewage Lift Station	2	see B 771			
776	Manufacturing and Utilities Low Level and TRU Solid	3	11/02/05	B776-A-000314	11/14/05	B776-A-000311
777	Assembly Building Plutonium Manufacturing Ops	3	see B 776			
778	Service/Contaminated Clothing Laundry	2	see B 707			
779	Plutonium Process Development Building	3	12/04/00	B779-A-000132	1/26/01	B779-A-000216
779-TUN	779-782 Tunnel	N/A	see B 779			
780	Flammable Storage	N/A	see B 779			
780A	Metal Storage	N/A	see B 779			

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
780B	Electrical Maintenance Storage	N/A	see B 779			
781	Compressor Building - 777 Helium Pumps	1	07/21/05	B776-A-000291	N/A	N/A
782	Filter Plenum B779 (Zone 2) HEPA Filters	N/A	see B 779			
783	Pump House Tower Water - Building 779	N/A	see B 779			
784	Cooling Tower - Standby B779	N/A	see B 779			
785	Cooling Tower - Process Water	N/A	see B 779			
786	Cooling Tower - East Chiller B779	N/A	see B 779			
787	Cooling Tower - West Chiller B779	N/A	see B 779			
790	Radiation Calibration Labs	1	07/28/03 11/10/03	IA-A-001685 IA-A-001953	N/A	N/A
792	Guard Post Portal 3 (north of 771)	1	05/02/02 09/27/01	IA-A-000949 IA-A-000833	N/A	N/A
792A	Personnel Access Control 771 (PACS 3)	1	05/02/02 09/27/01	IA-A-000949 IA-A-000833	N/A	N/A
827	Generator	1	04/17/03 04/08/04	IA-A-001382 IA-A-000092	N/A, 01/12/04	N/A, IA-A-001921
828	Process Waste Pit B886 Low Level	N/A	see B 886			
830	Storage / Isolated Power Supply	1	see B 881			
850	Logistics/Office Space/Cafeteria	1	10/17/02	IA-A-001116	N/A, 10/14/03	N/A, IA-A-001705
863	Electrical Transformer - Switchgear	1	see B 865			
864	Guard Union Office (former Guard Post)	1	see B 881			
865	Materials and Process Development Lab	2	03/01/04 04/08/04	B865-A-000091 B865-A-000092	08/30/05	B865-A-000093
866	Process Waste Transfer B865	2	see B 865			
867	Filter Plenum (west of B865) Zone 1	2	see B 865			
868	Filter Plenum (east of B865) Zone 2	2	see B 865			
869	Gas Meter House - PSCO Natural Gas Reducer	1	01/14/04	IA-A-001932	N/A, 02/06/04	N/A, IA-A-001968
875	Filter Plenum B886 Zone 1	2	see B 886			
879	Filter Plenum B883 Zone 1	2	see B 883			
880	Storage Shed	N/A	see B 886			
881	Manufacturing and General Support Building	2	11/01/04 09/28/05 10/18/05	B881-A-000064 B881-A-000067 B881-A-000071	10/25/05	B881-A-000069

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
881C	Cooling Tower B881 - 900 Tons	1	08/12/03	IA-A-001644	N/A	N/A
881F	Filter Plenum (881 roof) Zone 1	2	see B 881			
881G	Emergency Generator Facility-B881	1	see B 881			
881H	Electrical Equipment Building	1	see B 881			
881-S1	881-883 Stack (north of 881, west stack)	2	see B 881			
881-S2	881-883 Stack (north of 881, east stack)	2	see B 881			
881-S3	881-883 Stack (south of 881)	2	see B 881			
881-TUN	881-883 Tunnel	N/A	see B 881			
883	Uranium Rolling and Forming Facility	2	08/18/05	B883-A-000047	10/25/05	B883-A-000050
883C	Cooling Tower B883 - 4,000 Tons	1	see B 883			
884	RCRA Unit 13	1	01/29/03	IA-A-001615	11/02/05	IA-A-002847
885	Oil & Paint Storage	1	see B 881			
886	Nuclear Safety Criticality Lab	2	12/01/02	B886-A-000067	8/30/05[d]	B886-A-000073
887	Sewage & Process Waste Lift Station	2	see B 881			
888	Guard Post	1	12/01/02 04/23/03	B886-A-000067 B886-A-000069	N/A	N/A
888A	Electrical Transformer,1500kva,3ph	1	12/1/02	B886-A-000067	N/A	N/A
890	Cooling Tower Pump House - 881, 883	1	see B 881			
891	Ground Water Treatment Facility OU 1	1	09/01/05	IA-A-002823	N/A	N/A
901	Guard Tower	1	05/02/02	IA-A-000949	N/A	N/A
903A2	ER Decontamination Pad Storage (9 x 12) west of MDF	1	11/02/04	BZ-A-000772	N/A	N/A
903B	Decon Pad Sedimentation and Water Holding Tanks	2	11/02/04	BZ-A-000772	09/17/04	IA-A-002328
906	Central Waste Storage	1	03/01/05	IA-A-002551	N/A, 3/21/05	N/A, IA-A-002572
910	Solar Pond Evaporator Building, Gas Generators 1, 2, 3	2	04/01/03 2/26/04	IA-A-001372 IA-A-001995	04/06/05	IA-A-002606
910-G1	Gas Generator 1 - Building 910 (north)	1	sold 8/27/02		N/A	N/A
910-G2	Gas Generator 2 - Building 910 (middle)	1	sold 8/27/02		N/A	N/A
910-G3	Gas Generator 3 - Building 910 (south)	1	sold 8/27/02		N/A	N/A
920	Guard Post East Access	1	08/02/05	IA-A-002782	N/A	N/A
920A	SPO Shelter (north of ATM - was S701)	1	08/02/05	IA-A-002782	N/A	N/A
920B	Vehicle Search Facility-East **(CONTINUING MISSION)**	1	N/A	N/A	N/A	N/A
928	Fire Water Pump House	1	06/19/05	IA-A-002664	N/A	N/A
952	Isolated Toxic Gas Storage	1	07/27/04	IA-A-002244	N/A, 08/02/04	N/A, IA-A-002247

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
964	Waste Drum Storage RCRA Unit 24 Low Level Hazardous	2	12/01/04	IA-A-002484	01/04/05	IA-A-002516
965	Carpentry Shop/Contractor Storage	N/A	see B 980	Note [e]		
968	Contractor Warehouse/Storage	N/A	see B 980	Note [e]		
974	Sewage Treatment Sludge Drying Beds 1, 2, 3, 4 (supports 995)	1	see B 995		N/A	N/A
977	Sewage Treatment Sludge Drying Beds 5, 6, 7 (supports 995)	1	see B 995		N/A	N/A
980	General Metal Shop	2	10/9/97 11/4/04 pad	B980-A-000006 B980-A-000023	note5; 4/11/06 N/A, 10/5/05	IA-A-002942 B980-A-000042
984	TRU-Waste Storage Facility	1	see B991			
985	Filter Plenum B996/997/999	1	see B991			
987	Storage Vault (WSI Plant Protection) Bunker	1	4/1/03	IA-A-001352	N/A	N/A
988	Tertiary Treatment Pump House	1	see B 995		N/A	N/A
988A	Ultraviolet Disinfecting Facility	1	see B 995		N/A	N/A
989	Emergency Generator B991	1	see B991			
990	Pre-Aeration Building	1	see B 995		N/A	N/A
990A	Waste Water Treatment	1	see B 995		N/A	N/A
991	Product Warehouse	2	04/01/05	IA-A-002693	08/25/05	IA-A-002889
991TUN	Tunnels Between 991 Cluster Facilities	2	see B991			
992	Guard Post	1	see B991			
993	Security Storage Vault (WSI)	2	04/01/03 02/26/04 04/04/04 (slab)	IA-A-001373 IA-A-001995 IA-A-002056	03/31/94 04/06/05	IA-A-002044 IA-A-002606
995	Sewage Treatment Facility Low Level	1	06/14/05	BZ-A-000855	N/A, 8/25/05	N/A, IA-A-002892
995-AB-1	Sewage Treatment Aeration Basin #1 (North)	1	see B 995			
995-AB-2	Sewage Treatment Aeration Basin #2 (South)	1	see B 995			
995-C-1	Sewage Treatment Clarifier (Primary Clarifier #1)	1	see B 995			
995-C-2	Sewage Treatment Clarifier (Primary Clarifier #2)	1	see B 995			
995-C-3	Sewage Treatment Clarifier (Secondary Clarifier #1)	1	see B 995			
995-C-4	Sewage Treatment Clarifier (Secondary Clarifier #2)	1	see B 995			
995-C-5	Sewage Treatment Clarifier (Tertiary Clarifier - behind B988)	1	see B 995			
995-CCC-1	Sewage Treatment Chlorine Contact Chamber #1	1	see B 995			
995-CCC-2	Sewage Treatment Chlorine Contact Chamber #2	1	see B 995			
995-D1	Sewage Treatment Digester #1	1	see B 995			
995-D2	Sewage Treatment Digester #2	1	see B 995			

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
995-EC1	Sewage Treatment Effluent Cell 1 (Southern set- SE Cell)	1	see B 995			
995-EC2	Sewage Treatment Effluent Cell 2 (Southern set- SW Cell)	1	see B 995			
995-EC3	Sewage Treatment Effluent Cell 3 (Southern set- NW Cell)	1	see B 995			
995-IC1	Sewage Treatment Influent Cell 1 (Northern set- SW Cell)	1	see B 995			
995-IC2	Sewage Treatment Influent Cell 2 (Northern set- NW Cell)	1	see B 995			
995-IC3	Sewage Treatment Influent Cell 3 (Northern set- NE Cell)	1	see B 995			
996	Storage Vault - Building 991	1	see B 991			
997	Storage Vault - Building 991	1	see B 991			
998	Storage Vault - Building 991	2	see B 991			
999	Storage Vault - Building 991	1	see B 991			
C130	Storage Yard Container (Cargo containers w/roof)	1	05/21/02	BZ-A-000581	N/A	N/A
C331	Storage (Cargo containers w/roof) (331C)	1	07/28/05	IA-A-002738	N/A	N/A
C865	Cooling Tower (865)	1	04/17/03 03/01/04 04/08/04	IA-A-001383 B865-A-000091 B865-A-000092	N/A, 01/12/04 N/A, 8/30/05	N/A, IA-A-001921 N/A, B865-A-000093
Cell 1	Sanitary Landfill Cell 1 (Support of B280 Complex)	N/A	see B 280			
K750	Traffic Safety Office - east of 662	1	Note [b]		N/A, 4/11/06	N/A, IA-A-002942
K771	PACS 3 Kiosk	1	Note [b]		N/A, 4/11/06	N/A, IA-A-002942
S120	Bus Stop Car Pool Shelter (west of B120, was S119 located by Heliport)	1	08/02/05	IA-A-002782	N/A	N/A
S125	Storage Shed (south of 125)	1	06/12/02	IA-A-001002	N/A	N/A
S281	Sanitary Landfill Bale Storage (part of B280 Facility)	1	09/03/03	IA-A-001620	N/A	N/A
S372	Bus Stop Car Pool Shelter (south of 372A)	1	Note [b]		N/A, 4/11/06	N/A, IA-A-002942
S374	Building 374 Storage (north of 750HAZ)	N/A	see B 374			
S443	443 Steam Shed (Eighth Street)	N/A	see B 443			
S444	Bus Stop Car Pool Shelter (relocated south of T119B)	1	Note [b]		N/A, 4/11/06	N/A, IA-A-002942
S449	Maintenance Storage	1	7/11/03	B444-A-000054	N/A	N/A
S452	Storage (west of 452)	1	09/03/03	IA-A-001633	N/A	N/A
S460	Portable Shelter / Bus Stop	1	Note [b]		N/A, 4/11/06	N/A, IA-A-002942
S750	Custodial Storage (east of T750B)	1	see B750			
S770	Storage Facility (north of 771B)	1	see B 771			
S886	Bus Stop/Car Pool Shelter (north of 886) personal property	1	04/15/02	B800-A-000018	N/A	N/A
S966-1	Tuff Shed, 966 Decon Pad, directly next to Decon Pad (approx 8'x12')	N/A	see B 966			

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
S966-2	Tuff Shed, 966 Decon Pad, north of Decon Pad (approx 6'x6')	N/A	see B 966			
T112A	Trailer - Offices/Administration	1	04/02/01	IA-A-000757	N/A	N/A
T112B	Trailer - Storage	1	04/02/01	IA-A-000758	N/A	N/A
T112C	Trailer - Offices/Administration	1	04/02/01	IA-A-000759	N/A	N/A
T115A	Trailer (Offices)	1	01/14/04	IA-A-001927	N/A, 02/06/04	N/A, IA-A-001968
T115B	Fire Dispatch Quarters Trailer	1	10/13/04	IA-A-002368	N/A, 11/17/04	N/A, IA-A-002478
T115C	Trailer (Offices)	1	01/14/04	IA-A-001928	N/A, 02/06/04	N/A, IA-A-001968
T117A	Trailer (Offices)	1	12/15/03	IA-A-001878	N/A, 01/06/04	N/A, IA-A-001915
T119B	Trailer (WSLLC Offices)	1	05/05/04	IA-A-002119	N/A, 6/26/04	N/A, IA-A-002193
T121A	Trailer (Offices - Technical Security)	1	01/22/03	IA-A-001261	N/A, 11/10/03	N/A, IA-A-001804
T122A	Mobile Decontamination System Trailer	N/A	Transferred to	Hanford		
T124A	Trailer (Offices)	1	08/17/04	IA-A-002262	N/A, 08/31/04	N/A, IA-A-002290
T124G	Pump Skid	N/A	Transferred to	Hanford		
T130A	Trailer (Offices)	1	09/01/05	IA-A-002820	N/A	N/A
T130B	Trailer (Offices)	1	03/01/05	IA-A-002595	N/A	N/A
T130C	Trailer (Offices)	1	06/07/05	IA-A-002695	N/A	N/A
T130D	Trailer (Offices)	1	09/19/05	IA-A-002790	N/A	N/A
T130E	Trailer (Offices)	1	03/29/05	IA-A-002584	N/A	N/A
T130F	Trailer (Offices)	1	09/19/05	IA-A-002790	N/A	N/A
T130G	Trailer (Offices)	1	03/29/05	IA-A-002584	N/A	N/A
T130H	Trailer (Offices)	1	09/19/05	IA-A-002790	N/A	N/A
T130I	Trailer (Offices)	1	03/01/05	IA-A-002552	N/A, 3/21/05	N/A, IA-A-002569
T130J	Trailer (Offices)	1	08/02/05	IA-A-002780	N/A	N/A
T131A	Trailer (Offices)	1	06/03/03 11/10/03	IA-A-001440 IA-A-001954	N/A	N/A
T303D	Trailer (originally T120A)	1	10/10/04	IA-A-002374	N/A, 11/17/04	N/A, IA-A-002478
T331	Women Firefighter Change Area	1	04/06/01	IA-A-000760	N/A	N/A
T331A	Trailer - Fire Protection Administration	1	02/12/02 09/18/01	IA-A-000945 IA-A-000831	N/A	N/A
T334B	Trailer (Offices)	1	01/22/03	IA-A-001261	N/A, 11/10/03	N/A, IA-A-001804
T334D	Trailer (Offices)	1	08/13/03	IA-A-001632	N/A	N/A
T371A	Trailer (Offices)	1	3/23/04	B371-A-000187	N/A	N/A
T371C	Trailer (Offices)	1	3/23/04	B371-A-000188	N/A	N/A

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
T371D	Trailer (Offices)	1	3/23/04	B371-A-000189	N/A	N/A
T371E	Rest Rooms	1	3/23/04	B371-A-000190	N/A	N/A
T371F	Trailer (Offices)	1	3/23/04	B371-A-000191	N/A	N/A
T371G	Trailer	1	see B 371			
T371H	Trailer (Offices)	1	see B 371			
T371J	Trailer (Offices)	1	see B 371			
T371K	Trailer (Offices)	1	see B 371			
T371S	Trailer - Mobile Breakroom (D&D Closure Projects), originally T788A, T910MB and T771MB	1	see B 371			
T376A	Trailer (Offices)	1	see B371			
T428B	Trailer	1	06/28/04	IA-A-002191	N/A, 08/02/04	N/A, IA-A-002248
T439A	Trailer (Offices)	1	04/10/01 01/09/01	IA-A-000755 IA-A-000938	N/A	N/A
T439D	Trailer	1	04/10/01 01/09/01	IA-A-000756 IA-A-000939	N/A	N/A
T441A	Trailer (Offices)	1	2/3/02	IA-A-001262	N/A	N/A
T444A	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T452A	Trailer (Offices)	1	10/17/02	IA-A-001124	N/A, 10/14/03	N/A, IA-A-001705
T452B	Trailer (Offices)	1	10/17/02	IA-A-001125	N/A, 10/14/03	N/A, IA-A-001705
T452C	Trailer (Offices)	1	10/17/02	IA-A-001126	N/A, 10/14/03	N/A, IA-A-001705
T452D	Trailer (Offices)	1	10/17/02	IA-A-001127	N/A, 10/14/03	N/A, IA-A-001705
T452E	Rest Rooms	1	10/17/02	IA-A-001128	N/A, 10/14/03	N/A, IA-A-001705
T452F	Trailer (Offices)	1	08/21/02	IA-A-001061	N/A	N/A
T452G	Trailer (Offices)	1	10/17/02	IA-A-001129	N/A, 10/14/03	N/A, IA-A-001705
T551A	Trailer - Contractor Offices	1	2/12/02	IA-A-000946	N/A	N/A
T664A	Trailer (Offices)	1	01/08/05	IA-A-002518	N/A, 1/10/05	N/A, IA-A-002520
T664B	NDA Inspection Station, Canberra Property	N/A	Removed 5/05		N/A	N/A
T664C	Mobile RTR, Office, Canberra Property	N/A	Removed 5/05		N/A	N/A
T690A	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T690B	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T690C	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T690D	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T690E	Trailer	1	10/09/97	SW-A-002620	N/A	N/A

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
T690F	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T690G	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T690H	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T690K	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T690L	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T690M	Trailer	1	10/09/97	SW-A-002620	N/A	N/A
T690N	Trailer - Administration	1	Note [b]		N/A, 4/11/06	N/A, IA-A-002942
T706A	Trailer (Offices)	1	12/14/04	IA-A-002475	N/A, 12/21/04	N/A, IA-A-002508
T707B	Trailer (Offices)	1	06/15/05	B707-A-000178	N/A, 6/27/05	N/A, B707-A-000179
T707C	Trailer (Offices) (originally RISS T111A)	1	08/09/05	IA-A-002794	N/A	N/A
T707D	Trailer (Offices) (originally RISS T334C)	1	08/09/05	IA-A-002794	N/A	N/A
T707E	Trailer (Offices) (originally RISS T442A)	1	08/09/05	IA-A-002794	N/A	N/A
T707F	Trailer (Offices) (originally RISS T883C and then T771Q)	1	08/09/05	IA-A-002794	N/A	N/A
T707G	TTS Training Trailer (originally RISS T119A then T771R)	1	08/09/05	IA-A-002794	N/A	N/A
T750A	Trailer - Training	1	07/27/05	IA-A-002755	N/A	N/A
T750B	Trailer - Training	1	07/27/05	IA-A-002755	N/A	N/A
T750C	Trailer (Offices)	1	07/27/05	IA-A-002755	N/A	N/A
T750D	Trailer (Offices)	1	07/27/05	IA-A-002755	N/A	N/A
T750E	Old Restroom Trailer	1	04/04/01	IA-A-000761	N/A	N/A
T750F	Trailer - Locker Room/Shower	1	07/27/05	IA-A-002755	N/A	N/A
T750G	Trailer	1	07/27/05	IA-A-002755	N/A	N/A
T760A	Trailer - Lockers/Showers - Pondcrete	1	01/22/03 12/10/03	IA-A-001261 IA-A-001923	N/A, 11/10/03 N/A, 12/30/03	N/A, IA-A-001804 N/A, IA-A-001903
T771A	Trailer (Offices) - Modular Building	1	see B 771			
T771B	Trailer (Offices)	1	see B 771			
T771C	Nuclear Waste Packaging - Drum Counting	1	see B 771			
T771D	Trailer (Offices)	1	04/06/01	B771-A-000142	N/A	N/A
T771-DT	Decon Trailer (south of 441)	1	see B 771			
T771E	Trailer (Offices)	1	see B 771			
T771F	Trailer (Offices)	1	see B 771			
T771G	Trailer - Showers/Lockers	1	see B 771			
T771H	Trailer (Offices)	1	see B 771			
T771J	Trailer (Offices)	1	see B 771			

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
T771K	Trailer (Offices)	1	see B 771			
T771L	Trailer - Rest Rooms	1	see B 771			
T771T	Administration (originally RISS T881A)	1	see B 771			
T779A	Trailer Administration	1	11/01/04	IA-A-002437	N/A, 11/17/04	N/A, IA-A-002476
T881B	Trailer	1	04/15/02	B800-A-000019	N/A	N/A
T883A	Trailer	1	06/20/01 04/15/02	IA-A-000805 IA-A-000947	N/A	N/A
T883B	Trailer	1	04/13/02	IA-A-000948	N/A	N/A
T883D	Trailer - Rest Rooms	1	04/15/02	B800-A-000017	N/A	N/A
T886A	Trailer (Offices)	1	12/01/02	B886-A-000067	N/A	N/A
T886B	Trailer (Offices)	1	10/17/02	IA-A-001119	N/A, 10/14/03	N/A, IA-A-001705
T886C	Trailer (Offices)	1	10/17/02	IA-A-001120	N/A, 10/14/03	N/A, IA-A-001705
T889A	Trailer - Locker Room/Shower	1	05/21/02	IA-A-000981	N/A	N/A
T891B	Trailer (Offices)	1	03/01/05	IA-A-002559	N/A, 3/21/05	N/A, IA-A-002571
T891C	Trailer (Offices)	1	03/01/05	IA-A-002561	N/A	N/A
T891D	Trailer (Offices)	1	10/31/02	IA-A-001142	N/A, 03/24/05	N/A, IA-A-002585
T891E	Trailer (Offices)	1	10/17/02	IA-A-001123	N/A, 10/14/03	N/A, IA-A-001705
T891F	Trailer (Offices)	1	07/25/02	IA-A-001041	N/A	N/A
T891G	Trailer (Offices)	1	04/16/02	IA-A-000942	N/A	N/A
T891O	Trailer (Offices)	1	04/16/02	IA-A-001157	N/A	N/A
T891P	Trailer (Offices)	1	10/17/02	IA-A-001117	N/A, 10/14/03	N/A, IA-A-001705
T891Q	Trailer (Shower)	1	10/17/02	IA-A-001118	N/A, 10/14/03	N/A, IA-A-001705
T891R	Trailer (Offices)	1	04/16/02	IA-A-000940	N/A	N/A
T891V	Trailer (Offices) (originally T690J)	1	04/16/02	IA-A-000941	N/A	N/A
T893A	Trailer (Offices)	1	10/17/02	IA-A-001121	N/A, 10/14/03	N/A, IA-A-001705
T893B	Trailer (Offices)	1	10/17/02	IA-A-001122	N/A, 10/14/03	N/A, IA-A-001705
T900A	Trailer - OU 2 Trailer/Surface Water Treatment	1	09/01/05	IA-A-002823	N/A	N/A
T900B	Trailer - OU 2 Trailer/Surface Water Treatment	1	09/01/05	IA-A-002823	N/A	N/A
T900C	Trailer - OU 2 Office Trailer/Surface Water Treatment	1	10/31/02	IA-A-001143	N/A, 03/24/05	N/A, IA-A-002585
T900D	Trailer - OU 2 Office Trailer/Surface Water Treatment	1	05/21/02	IA-A-000982	N/A	N/A
T900E	Trailer - OU 2 Soil Vapor Extraction (SVE) Unit	1	10/31/02	IA-A-001144	N/A, 03/24/05	N/A, IA-A-002585
T903A	Old Shower Trailer ("Original" T903A)	1	04/04/01	IA-A-000762	N/A	N/A
T904A	KHC Mobile Break Room Trailer	1	06/23/04	IA-A-002185	N/A, 08/02/04	N/A, IA-A-002249

Table 1.5
Building Disposition

Property Identifier	Property Name	Type	Closeout Report	AR No.	Approval, FYI	AR No.
T974A	Sewage Treatment Trailer	1	see B 995			

[a] An RLCR was prepared for the B123 cluster, including these buildings, but protocol for typing of facilities and concurrence was under development.

[b] Some small buildings, such as guard shacks, portable shelters, bus stop enclosures, etc., were not formally typed, but met Type 1 criteria. Using the consultative process several facilities were determined to be equipment or structures and were dispositioned using the RFETS Property/Waste Release Evaluation process rather than using the Reconnaissance Level Characterization Plan/Predemolition Survey Report process.

[c] See AR #B771-A-000148, 7/12/01, CDPHE concurrence for RLCR for Type 1 Buildings in 771 cluster. This stipulated use of consultative process and additional characterization if necessary before demolition. The numerous contact records documenting the consultation and agreement on demolition as Type 1 buildings is included in the Administrative Record Attachment in the B771 Cluster Closeout Report.

[d] D&D of the 886 Cluster began under an IM/IRA dated 7/30/98, AR #B886-A-00025, which was approved by CDPHE (8/3/98) (AR #B886-A-00026). The action was completed, however, pursuant to the newly implemented Facility Disposition Program Plan and Decommissioning Program Plan. B886 and B875 were considered to be Type 2 Buildings. A Reconnaissance Level Characterization Report was prepared, but formal typing not needed to complete the IM/IRA scope of work.

[e] A Reconnaissance Level Characterization Report was prepared for the B980 cluster, including these buildings, but protocol for typing of facilities and concurrence was under development at the time.

N/A = not applicable. For some buildings, cluster buildings were not formally typed as Type 1, but are addressed in the building cluster closeout report. For some Type 1 buildings where the closeout approval requirement is N/A, the AR number related to any "For Your Information" (FYI) concurrence correspondence is included if in the AR File index.

FIGURES

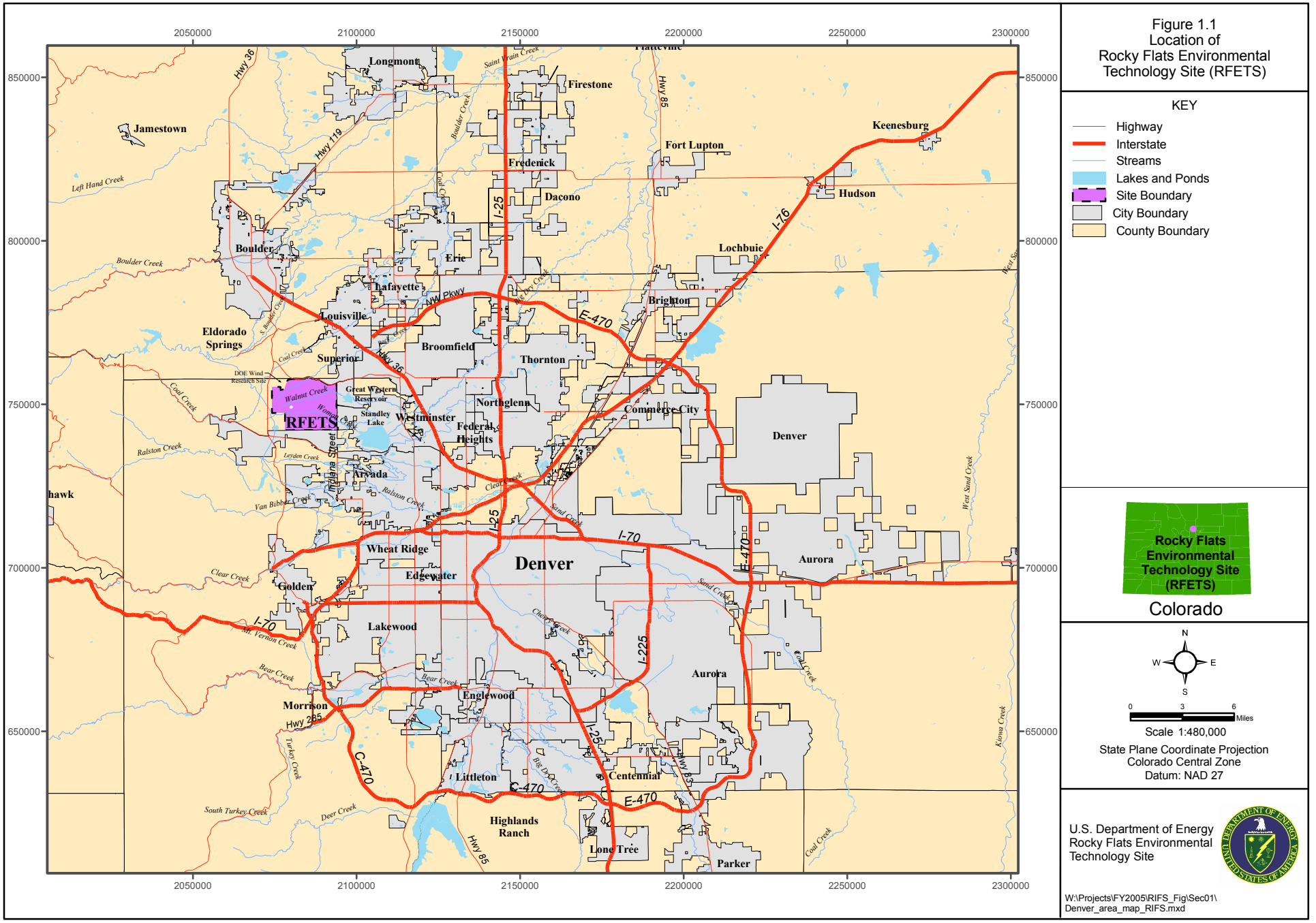

Figure 1.1
Location of
Rocky Flats Environmental
Technology Site (RFETS)

KEY

- Highway
- Interstate
- Streams
- Lakes and Ponds
- Site Boundary
- City Boundary
- County Boundary

Colorado

N
W E
S

0 3 6
Miles

Scale 1:480,000

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental
Technology Site

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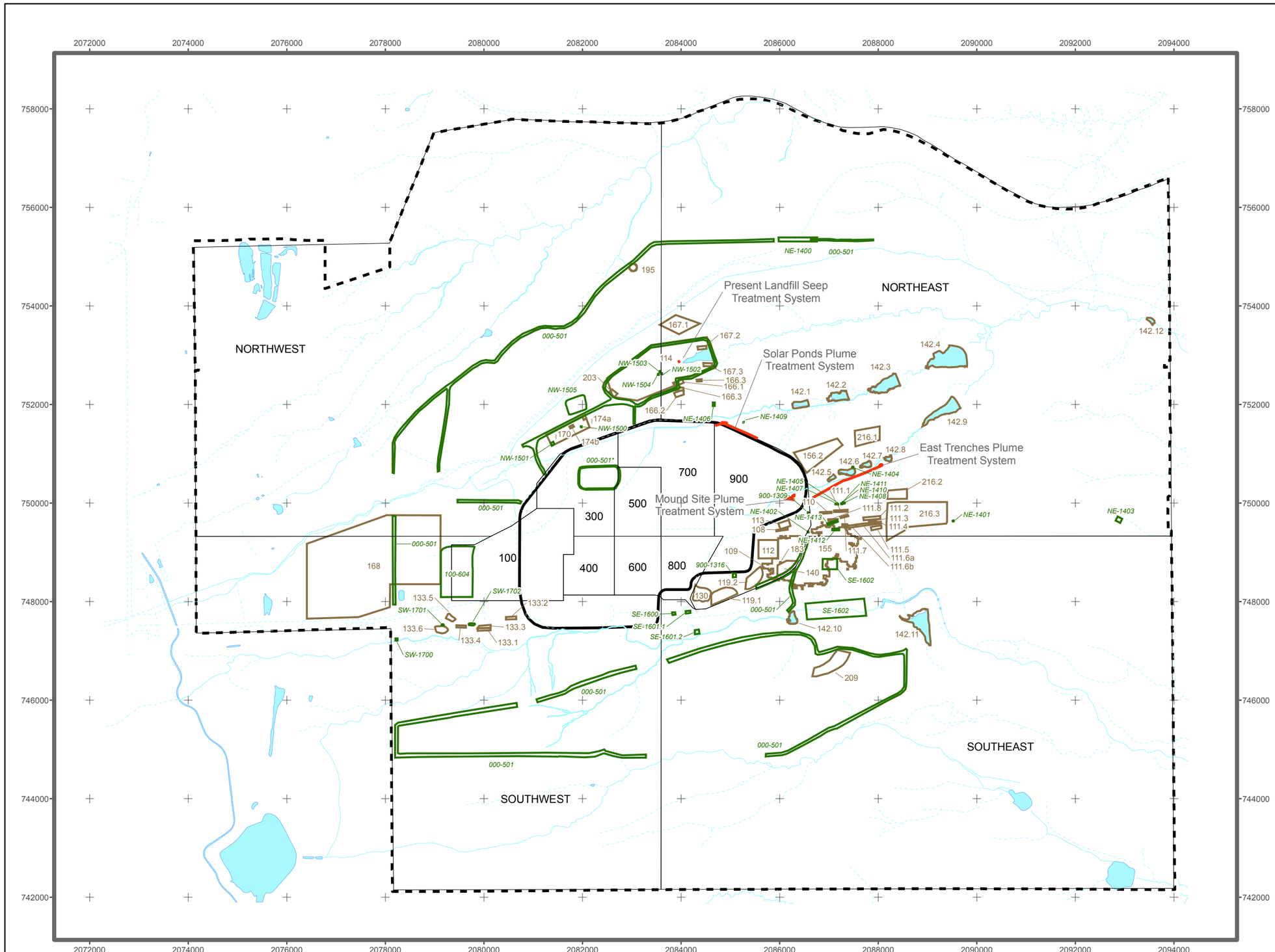
Figure 1.2

Buffer Zone IHSSs and PACs



* Although geographically located within the IA, this portion of the PAC 000-501 is categorized as part of the BZ. NFAA has been granted.

KEY

- HRR Area
- PAC Area
- IHSS Area
- Groundwater Treatment System

Standard Map Features

- IA OU boundary
- Pond
- Site boundary
- Perennial stream
- Intermittent stream
- Ephemeral stream

N
W E
S

0 1,000 2,000 Feet

Scale 1:24,000

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

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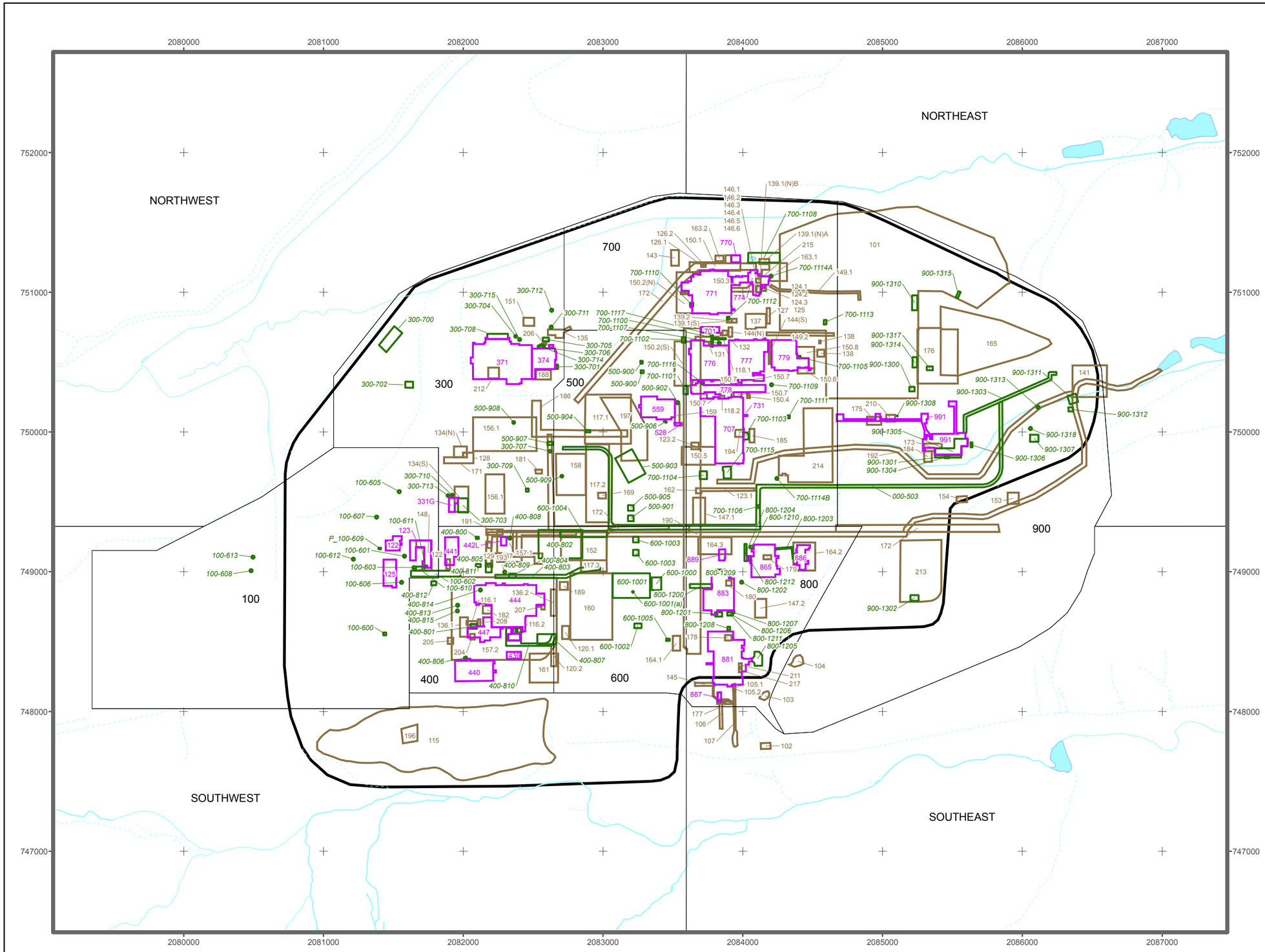
Figure 1.3

Industrial Area
IHSSs, PACs, and UBC Sites



KEY

- PAC Area
- IHSS Area
- UBC Area
- HRR Area

Standard Map Features

- IA OU Boundary
- Pond
- Site boundary
- Perennial stream
- Intermittent stream
- Ephemeral stream

N
W E
S

0 350 700
Feet

Scale 1:8,400

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental
Technology Site

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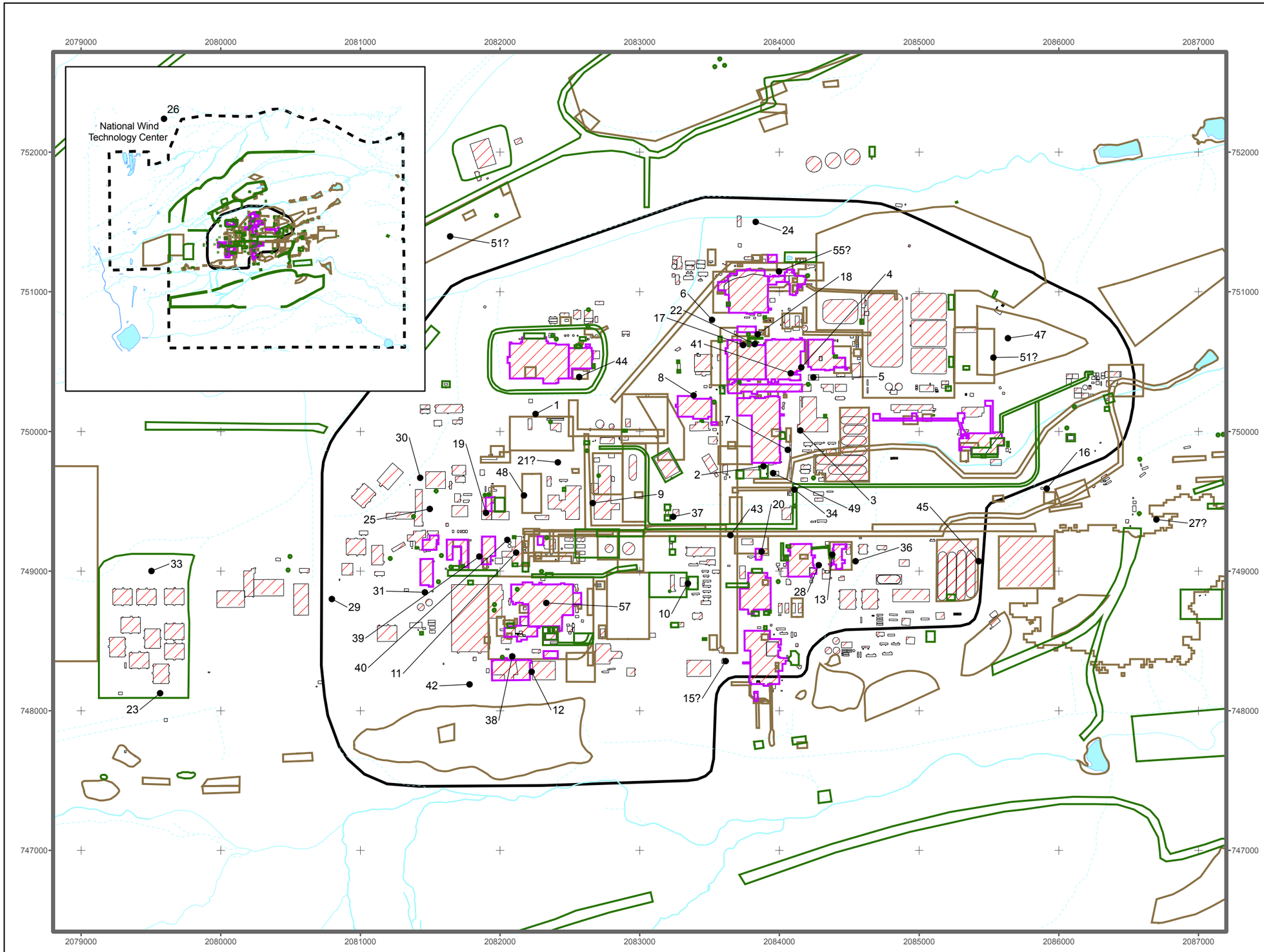
Figure 1.4

Approximate Locations of PICs



KEY

- PAC Area
- UBC Area
- IHSS Area
- Demolished Building/Removed Tanks
- ● Approximate PIC Location
- ? Assumed Location Using Available Information

Note:
Insufficient information exists to identify locations for the following PICs:
14
32
35
46
50 (may coincide with NPWL/OPWL)
51 (may have been PU&D Yard [IHSS 170] or S&W Yard [IHSS 165])
52
53
54
56 (Rio Grande Motorways leak [occurred offsite])
58
59
60
61

Standard Map Features

- IA OU Boundary
- Pond
- Site boundary
- Perennial stream
- Intermittent stream
- Ephemeral stream

N
W E
S

0 350 700
Feet

Scale 1:8,400

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

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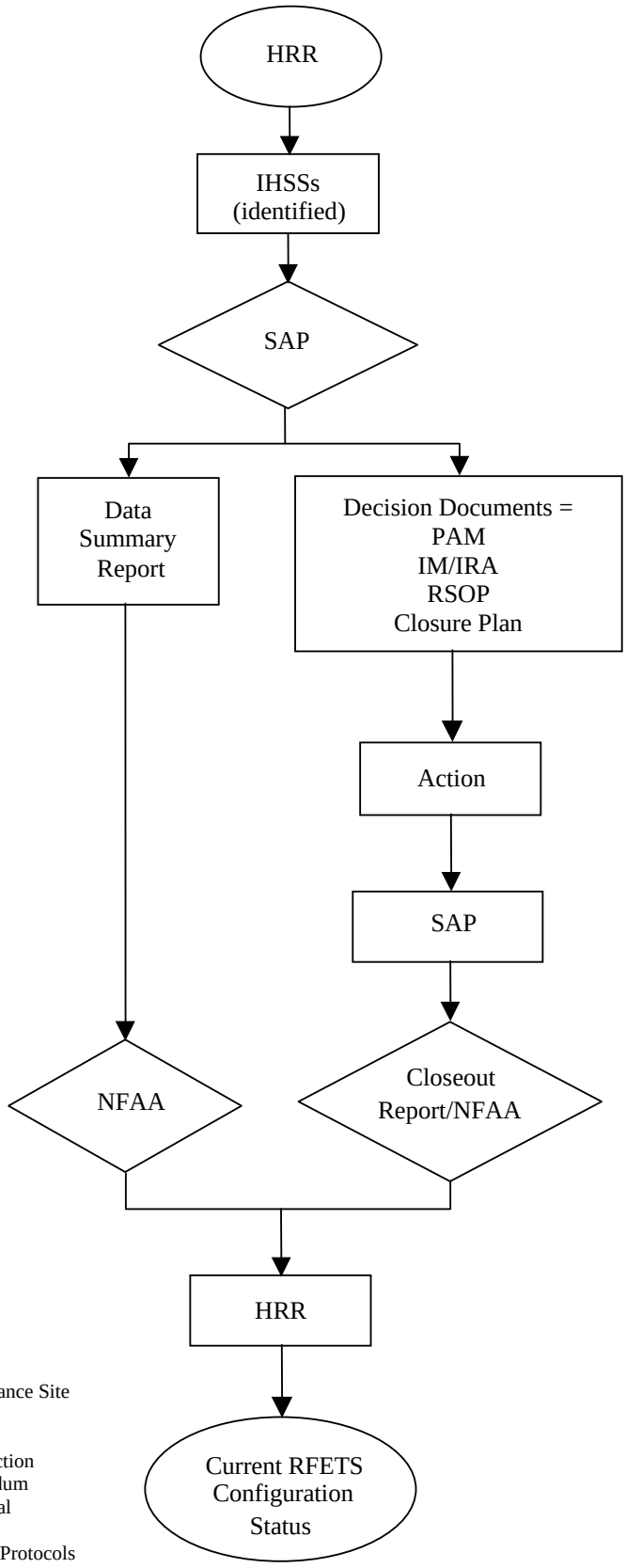
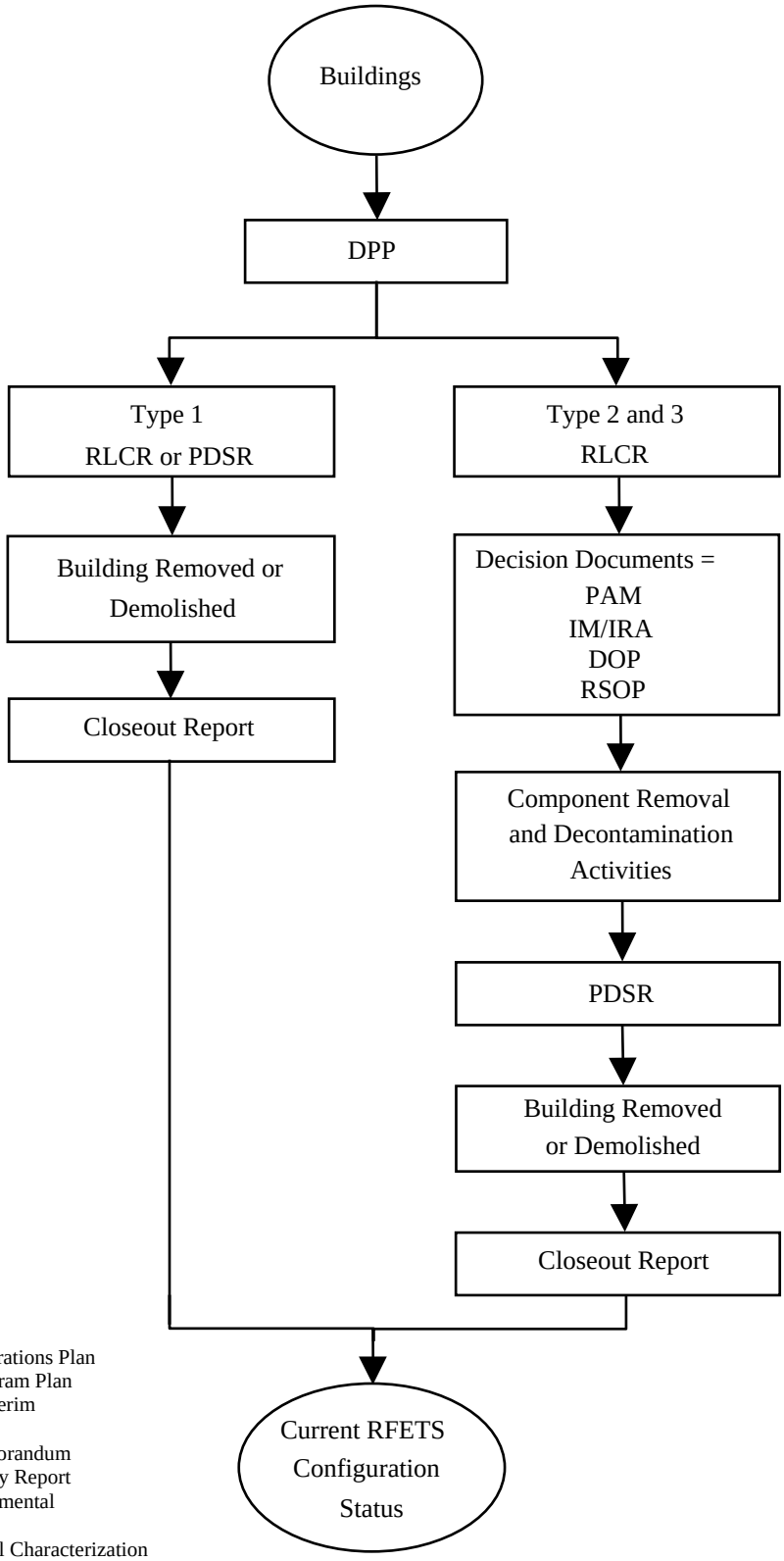
Figure 1.5
IHSS Disposition Flow Chart



HRR = Historical Release Report
IHSS = Individual Hazardous Substance Site
IM/IRA = Interim Measure/Interim Remedial Action
NFAA = No Further Accelerated Action
PAM = Proposed Action Memorandum
RFETS = Rocky Flats Environmental Technology Site
RSOP = RFCA Standard Operating Protocols
SAP = Sampling and Analysis Plan

Figure 1.6
Building Disposition Flow Chart



DOP = Decommissioning Operations Plan
DPP = Decommissioning Program Plan
IM/IRA = Interim Measure/Interim Remedial Action
PAM = Proposed Action Memorandum
PDSR = Pre-Demolition Survey Report
RFETS = Rocky Flats Environmental Technology Site
RLCR = Reconnaissance-Level Characterization Report
RSOP = RFCA Standard Operating