

# WASTE CONTROL PLAN FOR THE 200-CW-5, 200- CW-2, 200-CW-4 AND 200-SC-1 OPERABLE UNITS

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the  
U.S. Department of Energy under Contract DE-AC06-96RL13200

**Fluor Hanford**

P.O. Box 1000  
Richland, Washington

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# WASTE CONTROL PLAN FOR THE 200-CW-5, 200-CW-2, 200-CW-4 AND 200-SC-1 OPERABLE UNITS

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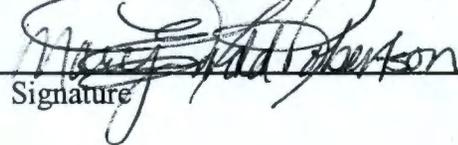
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**APPROVAL PAGE**

**Title:** Waste Control Plan for the 200-CW-5, 200-CW-2, 200-CW-4 and 200-SC-1 Operable Units

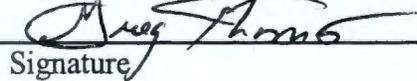
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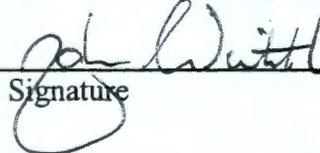
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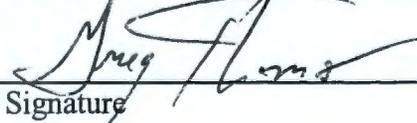
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**WASTE CONTROL PLAN**

**Work Scope Description:**

200-CW-5 U-Pond/Z-Ditches Cooling Water Group Operable Unit (OU). Characterization was performed at the 216-Z-11 Ditch. The scope of work involved three characterization activities for the vadose zone and one characterization activity for the Z Ditches source piping. Vadose zone characterization step 1 included ground penetrating radar (GPR) and electromagnetic induction (EMI) surveys. Vadose zone characterization step 2 included gross gamma/passive neutron (GG/PN) logging of driven Geoprobe rods. Vadose zone characterization step 3 included drilling one deep borehole for soil sampling, spectral gamma logging (SGL), and GG/PN. Spectral gamma logging may also be performed in existing wells near the 216-Z-11 Ditch. Soil samples were collected and analyzed for radiological and chemical contaminants of concern and physical properties. Characterization of the Z Plant source piping included accessing the piping through manhole ports to conduct a remote video survey and collect in-situ spectral gamma detector measurements. See Section 1.0 for additional information. Decommissioning of some existing wells will be performed as necessary in future years.

200-CW-2 S-Pond/Ditches Cooling Water Group OU. No field characterization is currently planned for the 200-CW-2 OU waste sites, however well decommissioning will be performed as necessary in future years.

200-CW-4 T-Pond/Ditches Cool Cooling Water Group OU. No field characterization is currently planned for the 200-CW-4 OU waste sites, however well decommissioning will be performed as necessary in future years.

200-SC-1 Steam Condensate Group OU. No field characterization is planned for the 200-SC-1 OU waste sites, however wells will be decommissioned within the scope of this revision as well as in future years. See Figure 2 in Attachment 1 for the location of these wells.

**List Constituents of Concern:**

Contaminants of concern at the 200-CW-5, 200-CW-2, 200-CW-4, and 200-SC-1 OUs include radionuclides, metals, and volatile and semi-volatile organic compounds. See Appendix A (Sampling and Analysis Plan) of the 200-CW-5 Work Plan (DOE/RL-99-66) for additional information.

**Site Description:**

**200-CW-5**

Waste sites in the 200-CW-5 OU are located in the 200 West Area of the Hanford Site in southeastern Washington State. There are 16 waste sites in this OU, which received mostly cooling water and steam condensate from U Plant and Z Plant operations. Figure 1 shows the location of the waste site characterized. Additional information on this site is presented in DOE/RL-99-66.

**200-CW-2**

Waste sites in the 200-CW-2 OU are located in the 200 West Areas of the Hanford Site in southeastern Washington State. The OU consists of eight waste sites and one associated UPR as defined in the pending Tri-Party Agreement Appendix C Package. These wastes sites and the UPR all received effluents from the 202-S Facility (REDOX Facility) and overflow from U Pond via the 216-U-9 Ditch.

**200-CW-4**

Waste sites in the 200-CW-4 OU are located in the 200 West Area of the Hanford Site in southeastern Washington State. The OU consists of eight waste sites that received wastes from the 221-T, 242-T, and 2706-T facilities.

**200-SC-1**

Waste sites in the 200-SC-1 OUs are located in the 200 East Area and the 200 West Area of the Hanford Site in southeastern Washington State. The 200-SC-1 OU has 16 waste sites (including three UPRs) that received steam condensate wastes from the 221-T, 242-T, and 2706-T facilities, among others. Figure 2 shows the location of the 216-S-6 Crib, the closest waste site to the well that is to be decommissioned.

**References:** 200-CW-5 U-Pond/Z-Ditches Cooling Water Group Operable Unit RI/FS Work Plan (DOE/RL-99-66) and its Sampling and Analysis Plan (Appendix A), Data Quality Objectives for Decommissioning 50 Mechanical Perforated Wells in Fiscal Year 2005 (WMP-24417) **Date Approved May 2004**

<p><b>Preparer:</b> <u>David Todak</u> </p> <p style="text-align: center;"><b>Print/Sign Name</b></p>	<p><b>Date</b> <u>6-9-05</u></p>	<p><b>Impact Level</b></p> <p style="text-align: center;">N/A</p>
<p><b>Project Task Lead:</b> <u>M.E. Todd-Robertson</u></p>		<p><b>IDW Coordinator:</b> <u>A.G. Rizzo</u> <i>ST 4/23/05</i> <i>M.W. Verwilligen</i></p>
<p><b>Planned Drilling Start and Finish Dates:</b> <b>From:</b> <u>TBD</u> <b>To:</b> <u>September 30, 2005</u></p>		
<p><b>Waste Storage Facility ID Number(s)</b> <u>N/A</u></p>		

<b>Field Screening Methods</b>				
<b>Method</b>	<b>Frequency</b>	<b>Reference</b>	<b>Detection Limit or Range</b>	<b>Analyst</b>
Ground penetrating radar, electromagnetic induction	Prior to intrusive characterization.	DOE/RL-99-66, Appendix A	Qualitative	Geologist
Alpha/beta-gamma detector	Continuous	DOE/RL-99-66, Appendix A	100 d/min alpha 1921 d/min gamma-beta	RCT
Dose rate, gamma	Continuous	DOE/RL-99-66, Appendix A	0.5 mR/h	RCT
Photo ionization detector, 11.7, and 11.8 eV lamp for organics	As required in the Health and Safety Plan	DOE/RL-99-66, Appendix A	0 to 1,000 ppmv	SSO
Innova (or B&K) multi-gas analyzer	At selected intervals	DOE/RL-99-66, Appendix A	1 to 18,000 ppmv	Sampler
Landtec GA-90	At selected intervals	DOE/RL-99-66, Appendix A	0.1 % to 100 %	Sampler
<b>Laboratory Methods (Contaminants of concern)</b>				
<b>Method</b>	<b>Frequency</b>	<b>Reference</b>	<b>Detection Range</b>	<b>Analyst</b>
Tables A2-1 and A2-1a	Table A3-3	DOE/RL-99-66, Appendix A	Tables A2-1 and A2-1a	On or off site Laboratory
<p><b>200-CW-5 OU Drill Site Coordinate Location:</b> Not applicable – No drilling is currently planned for FY2005.</p> <p><b>Decommissioning:</b> No wells are currently identified for decommissioning in this OU. As wells are identified for decommissioning, approval will be sought and granted through discussion at the Unit Manager's Meeting (UMM) and recorded in the UMM minutes.</p> <p><b>Waste Container Storage Area(s) Coordinate Location(s):</b> Although no longer staked, the waste container storage area will be reestablished at the representative site investigated if wells are decommissioned in or near this waste site. In addition, future 200-CW-5 well decommissioning needs and new waste container storage areas will be approved in Unit Manager's Meetings. All decommissioning wastes are considered IDW.</p> <p><b>Requirements for Spoils Pile Sampling (if any):</b> Not applicable – No spoils piles will be generated.</p> <p><b>Non-regulated Material Disposal Location(s):</b> An off-site Subtitle "D" landfill can be used for disposal of non-regulated miscellaneous solid waste. Non-regulated soil waste may be returned/disposed to the ground at or near the point of excavation, the location of which will be documented in the field logbook. Liquid wastes (e.g. purgewater, decontamination fluids) will be collected and taken to the Purgewater Storage and Treatment Facility (PSTF) or the Effluent Treatment Facility (ETF).</p> <p><b>200-CW-5 OU Sketch of Work Site:</b> Figure 1 identifies the borehole location (C3808) and waste container storage areas at the 216-Z-11 Ditch. (This borehole was completed in FY 2002.)</p>				
<p><b>200-CW-2 OU Drill Site Coordinate Location:</b> Not applicable – No drilling is currently planned for FY2005.</p> <p><b>Decommissioning:</b> No wells are currently identified for decommissioning in this OU. As wells are identified for decommissioning, approval will be sought and granted through discussion at the Unit Manager's Meeting (UMM) and recorded in the UMM minutes.</p> <p><b>Waste Container Storage Area(s) Coordinate Location(s):</b> New waste container storage areas will be approved in Unit Manager Meetings for future well decommissioning at 200-CW-2 waste sites. All decommissioning wastes are considered IDW.</p> <p><b>Requirements for Spoils Pile Sampling (if any):</b> Not applicable</p>				

**WASTE CONTROL PLAN**

**Non-regulated Material Disposal Location(s):** Not applicable

**200-CW-2 OU Sketch of Work Site:** Not applicable. No work is currently scheduled within the scope of this waste control plan.

**200-CW-4 OU Drill Site Coordinate Location:** Not applicable – No drilling is currently planned for FY2005.

**Decommissioning:** No wells are currently identified for decommissioning in this OU. As wells are identified for decommissioning, approval will be sought and granted through discussion at the Unit Manager's Meeting and recorded in the UMM minutes.

**Waste Container Storage Area(s) Coordinate Location(s):** New waste container storage areas will be approved in Unit Manager Meetings for future well decommissioning at 200-CW-4 waste sites. All decommissioning wastes are considered IDW.

**Requirements for Spoils Pile Sampling (if any):** Not applicable

**Non-regulated Material Disposal Location(s):** Not applicable

**200-CW-4 OU Sketch of Work Site:** Not applicable. No work is currently scheduled within the scope of this waste control plan.

**200-SC-1 OU Drill Site Coordinate Location:** Not applicable – No drilling is currently planned for FY2005.

**Decommissioning:** Scope will initially focus on one well (299-W26-2). As additional wells are identified for decommissioning, approval will be granted through discussions at the unit manager's meeting and be recorded in the UMM minutes.

**Waste Container Storage Area(s) Coordinate Location(s):** 216-S-6 Crib. Refer to Figure 2. As needs arise, new waste container storage areas will be approved in Unit Manager Meetings for future well decommissioning at 200-SC-1 waste sites. All decommissioning wastes are considered IDW.

**Requirements for Spoils Pile Sampling (if any):** Not applicable

**Non-regulated Material Disposal Location(s):** An off-site Subtitle "D" landfill can be used for disposal of non-regulated miscellaneous solid waste. Non-regulated soil waste may be returned/disposed to the ground at or near the point of excavation, the location of which will be documented in the field logbook. Liquid wastes (e.g. purgewater, decontamination fluids) will be collected and taken to the PSTF or the ETF.

**200-SC-1 OU Sketch of Work Site:** Figure 2 identifies the location of the 216-S-6 Crib, the well to be decommissioned (299-W26-2), and the waste container storage area.

**APPROVALS (Print/Sign Name and Date)**

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ATTACHMENT 1

DESCRIPTION OF WORK

CONTENTS

1.0 DESCRIPTION OF WORK .....1

1.1 WASTE STREAM.....2

1.2 WASTE GENERATION AND MANAGEMENT .....2

    1.2.1 Miscellaneous Solid Waste.....3

    1.2.2 Vadose Zone Drill Cuttings .....3

    1.2.3 Decontamination Fluids .....4

    1.2.4 Equipment and Construction Materials .....4

    1.2.5 Non-dangerous/No-Radiation-Added Solid Waste.....4

    1.2.6 Unplanned Release.....4

1.3 MANAGEMENT OF WASTE CONTAINERS .....5

1.4 STORAGE AND FINAL DISPOSAL.....5

1.5 RECORDS .....6

1.6 ESTIMATE OF INVESTIGATION-DERIVED WASTE QUANTITIES .....6

2.0 REFERENCES .....11

FIGURES

Figure 1. 200-CW-5 Location Map and Waste Container Storage Areas ..... 7

Figure 2. 200-SC-1 Location Map and Waste Container Storage Area ..... 8

TABLES

Table 1. Estimate of Investigation-Derived Waste Quantities..... 9

Table 2. 200-CW-5 Geophysical Data Collection Well List. .... 10

**TERMS**

CERCLA	<i>Comprehensive Environmental Response, Compensation and Liability Act of 1980</i>
ERDF	Environmental Restoration Disposal Facility
ID	identification
IDW	investigation-derived waste
MSW	miscellaneous solid waste
OU	operable unit
PPE	personal protective equipment
PUREX	Plutonium-Uranium Extraction (Plant)
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
RCT	radiological control technician
REDOX	Reduction-Oxidation (Plant)
TRU	transuranic (waste materials contaminated with 100 nCi/g of transuranic materials having half-lives longer than 20 years)
TSD	treatment, storage, and disposal
WAC	<i>Washington Administrative Code</i>
WESF	Waste Encapsulation and Storage Facility

## 1.0 DESCRIPTION OF WORK

This waste control plan (WCP) governs the management of investigation-derived waste (IDW) generated at the 216-Z-11 Ditch (Figure 1) under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) in accordance with the *200-CW-5 U-Pond/Z-Ditches Cooling Water Group Operable Unit RI/FS Work Plan* (DOE/RL-99-66). This waste site was characterized to provide data needed to refine the conceptual contaminant distribution model, support an assessment of risk, and evaluate and select a preferred remedial action. The scope involved a three-step process for vadose zone characterization.

Vadose zone characterization step one included surface geophysical surveys of the site using ground-penetrating radar (GPR) and electromagnetic induction. Vadose zone characterization step 2 involved the installation of Geoprobe® rods for gross gamma/passive neutron (GG/PN) logging methods to locate high-contamination areas. Vadose zone characterization step 3 consisted of drilling one deep borehole for soil sampling, with spectral gamma-ray logging (SGL) and GG/PN logging. No IDW was generated during activities in step 1 of the vadose zone characterization because it was non-intrusive. The step 2 Geoprobe rods and the step 3 drill casings were removed after use and contaminated casing was managed and disposed as IDW. Soil samples were collected and analyzed for radiological and chemical contaminants of concern and physical properties in step 3 of the vadose zone characterization. Soil cuttings were managed and disposed as IDW. The estimated IDW generated is provided in Table 1.

The source piping characterization involved remote visual inspection of the Z Plant discharge piping through the manhole access ports and in situ assays by spectral gamma detectors. The source piping characterization also generated IDW.

Borehole geophysical logging was also conducted at other waste sites associated with the 200-CW-5 Operable Unit as identified in Table 2. These wells were logged as part of normal site-wide operations and information from these surveys were included in the remedial investigation report. Additional geophysical logging may be conducted at other 200-CW-5, 200-CW-2, 200-CW-5, and/or 200-SC-1 wells in the future. All wastes generated as a result of such logging will be managed as IDW and stored at the 200-CW-5 Waste Container Storage Area.

A number of wells in the 200-CW-5, 200-CW-4, 200-CW-2, and 200-SC-1 OUs do not meet the current standards for construction and maintenance of wells and will be decommissioned. Initially, only well 299-W26-2 immediately adjacent to the 216-S-6 Crib, is scheduled to be decommissioned in 2005. Waste generated from this activity is IDW and will be designated based on 200-SC-1 representative waste site characterization data.

Any wastes generated during this project will be managed in accordance with this waste control plan and state and Federal regulations. An overview of the waste management strategy for the 200 Areas waste sites is presented in Appendix E of DOE/RL-98-28, *200 Areas Remedial Investigation/Feasibility Study Implementation Plan – Environmental Restoration Program*. Every effort will be used to minimize waste generated during this project.

## 1.1 WASTE STREAM

One or all of the below waste streams are anticipated and may fall into any combination of the following categories: transuranic (TRU), radioactive, mixed, hazardous, dangerous, suspect radioactive, suspect dangerous, suspect mixed, and nonregulated:

- Miscellaneous solid waste (e.g., rubber, glass, paper, personal protective equipment, cloth, plastic, metal)
- Drill cuttings, soils, and slurries
- Decontamination fluids
- Equipment and construction materials (e.g., well casing, drill string, drive barrel, construction equipment and materials, sampling equipment, decommissioning materials, wooden pallets)
- Nondangerous/no-radiation-added (nonradioactive) solid waste (e.g., paper, wood, construction debris, metal, plastic, glass)
- Unplanned release and associated cleanup material.
- Well decommissioning waste (e.g. MSW, drill cuttings, soils & slurry, decontamination fluids and purgewater, equipment and construction debris).

## 1.2 WASTE GENERATION AND MANAGEMENT

All waste generated will be recorded in the geologist and/or buyer technical representative logbook, with such details as the location and type of waste, depth of sample, date of initial placement into container, date the container was sealed, and Package Identification Number. Marking, labeling, segregation, and staging of waste containers will be performed or directed by the waste transportation specialist.

Waste will be stored at the site-specific waste container storage area as shown in Figures 1 and 2. Future well decommissioning activities may require additional site-specific waste container storage areas, which will be approved in the Unit Manager's Meeting (UMM) and recorded in the UMM minutes. The IDW will be stored at these areas until analytical data are evaluated for proper waste designation and will be disposed of at the Environmental Restoration Disposal Facility (ERDF) if it meets the waste acceptance criteria specified in BHI-00139, Environmental Restoration Disposal Facility Waste Acceptance Criteria. No TRU waste was encountered during characterization at the 216-Z-11 Ditch, however if TRU waste is encountered, it will be sent to the Hanford Site Central Waste Complex for storage. In addition, if any waste needs to be transported to the Central Waste Complex, the EPA will be contacted to make an offsite determination before the waste is shipped. Any waste transported to the Central Waste Complex for storage must be dispositioned in accordance with the work plan required by TPA Milestone M-016-93 for TRU waste generated by CERCLA cleanup actions of the Hanford Site, and the final MO-016 Cleanup Schedule.

If, after designation of the waste is completed, the waste must be stored for longer than six months, the U.S. Department of Energy, Richland Operations Office (RL) will obtain concurrence from the lead regulatory agency on the schedule and location for disposition of the waste.

Details on the types and management of expected wastes are provided in the following subsections.

### **1.2.1 Miscellaneous Solid Waste**

Well decommissioning wastes are to be treated as suspect dangerous or suspect mixed waste based on process knowledge and representative waste site characterization sample results. Refer to the specific data quality objective for process knowledge and representative analytical data. Some waste associated with decommissioning may be considered environmentally controlled material or nondangerous/no-radiation-added solid waste based on process knowledge and representative analytical data. Decommissioning waste shall be containerized, marked, segregated, staged and dispositioned as stated below.

Miscellaneous solid waste (MSW) that has contacted suspect dangerous or suspect mixed waste will be treated as such. Field screening will be used to segregate radioactive IDW from no-radiation-added (non-radioactive) IDW. The MSW will be placed in a plastic bag, taped closed, marked to indicate the associated borehole footage interval, and placed in container(s) specific to each area of potential contamination. Container(s) will be properly marked and labeled. The containers will be segregated from other materials, based on field screening results and location, and then staged at the designated site-specific waste container storage area. The containers of MSW will be dispositioned using analytical results obtained from the soil contacted.

### **1.2.2 Vadose Zone Drill Cuttings**

Vadose zone drill cuttings are to be treated as suspect dangerous or suspect mixed waste, based on process knowledge and field screening results. Drill cuttings shall be containerized in properly labeled mid-performance coated drums with 10-mil reinforced plastic liners to mitigate the spread of contaminants to the environment. Containers will be properly marked and labeled. Mark the container lid with the date, well name, start and close date, start depth and ending depth, gross weight, and sampling date. If screening levels indicate that the cuttings may be characterized as TRU waste, the cutting containers also will have vented lids. The containers will be segregated from other materials, based on field screening results and location, and then staged in an enclosure at the designated site-specific waste container storage area. The containers of drill cuttings will be dispositioned using analytical results associated with the contaminated media contacted.

The IDW soil that does not designate as dangerous waste, is below *Washington Administrative Code* (WAC) 173-340-747, "Deriving Soil Concentrations for Ground Water Protection," groundwater protection standards, and has been released from a radiological perspective may be returned to the ground at or near the point of generation or at an uncontaminated location within the remediation area.

### 1.2.3 Decontamination Fluids

Decontamination fluids (water and/or non-dangerous cleaning solutions) generated from cleaning equipment and tools in the OU will be contained, transported, and discharged at the Hanford Site 600 Area Purgewater Storage and Treatment Facility (ModuTanks)<sup>1</sup> in accordance with Appendix F of the *Hanford Federal Facility Agreement and Consent Order* (Ecology et al. 1989). If necessary, decontamination fluids can be containerized and stored at the designated site-specific waste container storage area.

Additional chemical decontamination of sample equipment may be conducted at the Waste Sampling and Characterization Facility, because decontamination and containment systems already are established at this location. The waste generated at the Waste Sampling and Characterization Facility is not considered IDW and will be managed in accordance with applicable regulations and requirements.

### 1.2.4 Equipment and Construction Materials

Equipment and construction materials in contact with suspect dangerous and suspect mixed waste will be decontaminated with a three-bucket wash or a high-temperature and high-pressure wash (180 °F and >1000 lbf/in<sup>2</sup>) within a wash basin capable of retaining rinsate, or it will be treated as MSW. All water used for decontamination activities shall be potable (i.e., Hanford Site potable water or City of Richland water). Rinsate shall be managed as described in Section 1.2.3. All sampling equipment shall be cleaned and decontaminated for chemical contamination after radiological release by a radiological control technician (RCT). If contamination is determined to be fixed for any equipment or materials, the radiological control technician and task manager will make the decision to remove the contamination using more aggressive methods or to dispose of the equipment. If necessary, equipment and construction materials can be containerized and stored at the designated site-specific waste container storage area.

### 1.2.5 Non-dangerous/No-Radiation-Added Solid Waste

All non-dangerous/no-radiation-added (non-radioactive) solid waste will be radiologically released and may be disposed to an offsite solid-waste landfill. This waste will not have contacted any suspect dangerous or mixed waste and will be free of any liquids. Items in this category include paper, wood, construction debris, metals, plastic, food waste, glass, etc. A radiological release certification form and/or the well identification number and date of generation should be attached and visible from outside the trash bag. If necessary, non-dangerous/no-radiation-added solid waste can be containerized, segregated, and stored at the designated site-specific waste container storage area.

### 1.2.6 Unplanned Release

The initial response to emergency and non-emergency events and conditions shall follow the direction provided in the individual work location Health and Safety Plan (HASPS). Once the

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<sup>1</sup> ModuTank is a trademark of ModuTank Inc., Long Island City, New York.

initial assessment is completed and appropriate measures have been taken to curtail and contain the spill or release, the waste specialist will ensure that compatible waste container(s) are properly marked, labeled, and segregated from other materials based on process knowledge, field screening results, and location and then will be staged at a designated site-specific waste container storage area. The containers will be dispositioned using analytical results or process knowledge. These actions will be conducted in accordance with the requirements of WAC 173-303-145, "Dangerous Waste Regulations," and 40 *Code of Federal Regulations* (CFR) 302, "Designation, Reportable Quantities, and Notification."

### 1.3 MANAGEMENT OF WASTE CONTAINERS

The containers will be stored inside the applicable site-specific waste container storage area. The waste container storage areas shown in Figure 1 and Figure 2 may be relocated within or adjacent to the identified waste site to accommodate changes in the remedial investigation field operations. If a waste container storage area is relocated, the lead regulatory agency will be notified before the change and relocation of the waste container storage area. Containers awaiting analytical results will be marked and labeled "Waste Awaiting Designation," as prescribed in the preceding sections. Weekly inspections will be performed to document the integrity, container marking/labeling, physical container placement, storage area boundaries/identification/warning signs, and spill control. Containers showing signs of deterioration will be identified on the container inspection form and immediately will be overpacked or repackaged. Spills or releases will be reported as stated above. In the event of a spill or release, appropriate immediate action will be taken to protect human health and the environment.

### 1.4 STORAGE AND FINAL DISPOSAL

All IDW will be stored at the site-specific waste container storage area until the waste samples are returned and the proper waste shipping papers are completed. The process to develop proper waste shipping papers includes the following: receipt of analytical results, designation, profiling, and proper disposal of paperwork. The designation process ensures that the waste will be profiled for the proper disposal facility. Waste profiling provides information concerning each waste stream. The designation and profiling are conducted in accordance with dangerous waste regulation requirements (WAC 173-303-070, "Designation of Dangerous Waste" through 173-303-100). Dangerous waste will be evaluated for applicable land disposal restrictions in accordance with WAC 173-303-140, "Land Disposal Restrictions." The presence of polychlorinated biphenyls will be evaluated in accordance with the *Toxic Substances Control Act of 1976* and WAC 173-303-9904, "Dangerous Sources List." Radiological wastes will be determined to be acceptable for near surface (onsite) disposal if the concentrations of radionuclides are below those in BHI-00139.

The IDW that does not meet the ERDF waste acceptance criteria will remain at the designated site-specific waste container storage area pending disposal at an appropriate location. A case-by-case disposal determination will be made in instances where IDW exceeds the ERDF waste acceptance criteria. Any IDW requiring treatment before disposal requires approval by the lead regulatory agency.

Waste above radiological release levels that meets the ERDF waste acceptance criteria will be transported to the ERDF for disposal (ERDF is an "onsite" approved waste disposal facility). Non-radiologically contaminated dangerous waste may be shipped onsite to ERDF or to an offsite facility, contingent upon the waste meeting the offsite RCRA disposal facility's waste acceptance criteria and offsite determination of acceptability by the U.S. Environmental Protection Agency.

Soils associated with analytical results that are below the radiological release criteria specified in HNF-EP-0063, *Hanford Site Solid Waste Acceptance Criteria*, and below chemical cleanup values specified in WAC 173-340-747 groundwater protection standards, may be returned to the environment near the borehole.

If TRU levels of contamination are encountered, the suspect waste will be placed within engineering segregated boundaries of the designated storage area and posted according to radiological posting requirements. After representative samples are analyzed and the material is designated/characterized, the proper disposal facility will be selected. If the Central Waste Complex (CWC) is selected for long-term storage, soil sample(s) designated as TRU waste will be returned and placed back into the stored waste drum associated with the interval from which the sample was taken before it is shipped. Offsite determination of acceptability for waste selected for long-term storage at CWC will be obtained from the U.S. Environmental Protection Agency. In addition, if any waste needs to be transported to the Central Waste Complex, the EPA will be contacted to make any offsite determination before the waste is shipped. Any waste transported to the Central Waste Complex must be dispositioned in accordance with the work plan required by TPA milestone M-016-93 for TRU waste generated by CERCLA cleanup actions at the Hanford Site and in accordance with the final M-016 cleanup schedule.

Miscellaneous solid waste identified as nondangerous/no-radiation-added solid waste that does not require disposal at ERDF and meets the Hanford Site free-release criteria may be disposed of in an appropriate solid waste disposal facility (Subtitle "D" landfill).

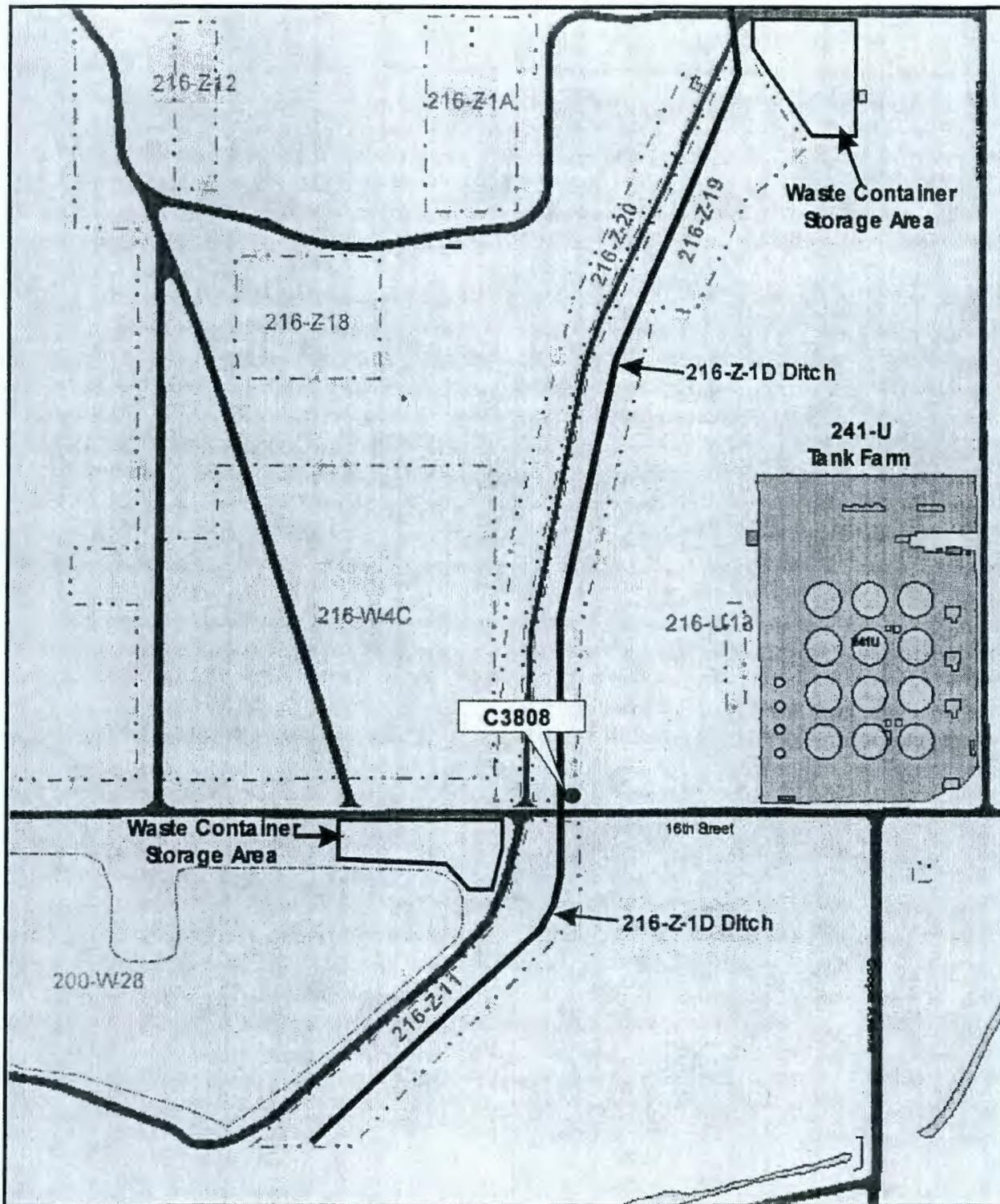
## 1.5 RECORDS

Original copies of all sampling records, waste inventory documentation, and waste container certification forms will be forwarded to the assigned waste transportation specialist to be included in the waste file and to initiate waste tracking in the *Solid Waste Information Tracking System*. The completed waste files will be included in the project file following final waste disposition.

## 1.6 ESTIMATE OF INVESTIGATION-DERIVED WASTE QUANTITIES

Estimates of the amount of waste that will be generated during this field investigation are given in Table 1. These quantities are based on IDW generated during previous 200 Areas drilling activities.

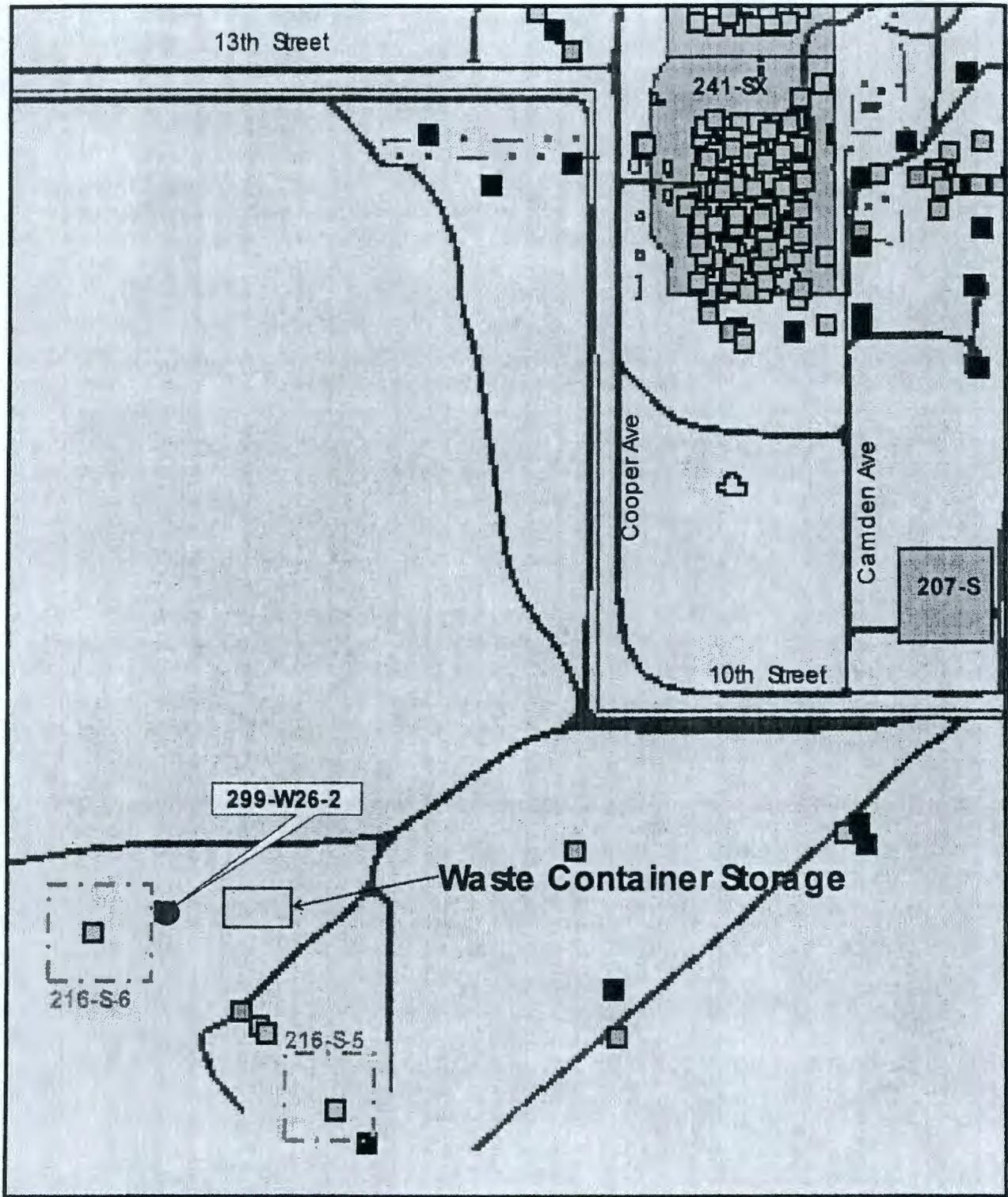
Figure 1. 200-CW-5 Location Map and Waste Container Storage Areas



- |                                |                                 |                           |
|--------------------------------|---------------------------------|---------------------------|
| ● Subject Wells                | <b>Wells</b>                    | - - - Waste Site Boundary |
| □ Waste Container Storage Area | ▣ Decommissioned                | ▣ Buildings/Structures    |
|                                | ▣ Candidate for Decommissioning | ▣ Roads                   |
|                                | ■ In Use                        |                           |



Figure 2. 200-SC-1 Location Map and Waste Container Storage Area



- |                                |                                 |                           |
|--------------------------------|---------------------------------|---------------------------|
| ● Subject Wells                | <b>Wells</b>                    | - - - Waste Site Boundary |
| □ Waste Container Storage Area | ■ Decommissioned                | ■ Buildings/Structures    |
|                                | ■ Candidate for Decommissioning | ▬ Roads                   |
|                                | ■ In Use                        |                           |



Table 1. Estimate of Investigation-Derived Waste Quantities.

Operable Unit	Method	Liquid Wastes	Soil Wastes	Miscellaneous Solid Waste	
		Purgewater and decon fluids (drums <sup>a</sup> )	Cuttings (drums <sup>a</sup> )	PPE/Trash (drums <sup>a</sup> )	Disposable Equipment
200-CW-5	Drilling	7	40	11	280 linear feet drill casing 240 linear feet Geoprobe rod
200-SC-1	Decommissioning	N/A	N/A	5	5 linear feet drill casing

<sup>a</sup>208-L (55-gal) drums.

<sup>b</sup>purgewater.

PPE = personal protective equipment.

Table 2. 200-CW-5 Geophysical Data Collection Well List.

Area	Operable Unit	Waste Site Code	Site Type	Hanford Well Name	Hanford Well ID
200 West	200-CW-5	207-U	Basin	299-W19-12	A4945
200 West	200-CW-5	207-U	Basin	299-W19-31	A4956
200 West	200-CW-5	207-U	Basin	299-W19-32	A4957
200 West	200-CW-5	216-U-9	Ditch	299-W35-78A	A5141
200 West	200-CW-5	216-U-10	Pond	299-W18-15	A4932
200 West	200-CW-5	216-U-10	Pond	299-W23-17	A7886
200 West	200-CW-5	216-U-10	Pond	299-W23-210	A8045
200 West	200-CW-5	216-U-10	Pond	299-W23-228	A9874
200 West	200-CW-5	216-U-10	Pond	299-W23-231	A9518
200 West	200-CW-5	216-U-14	Ditch	299-W18-250	A7730
200 West	200-CW-5	216-U-14	Ditch	299-W18-251	A7731
200 West	200-CW-5	216-U-14	Ditch	299-W19-92	A4961
200 West	200-CW-5	216-U-14	Ditch	299-W19-93	A4962
200 West	200-CW-5	216-U-14	Ditch	299-W23-16	A7885
200 West	200-CW-5	216-Z-1D	Ditch	299-W18-177	A7659
200 West	200-CW-5	216-Z-1D	Ditch	299-W18-187	A7669
200 West	200-CW-5	216-Z-1D	Ditch	299-W18-186	A7668
200 West	200-CW-5	216-Z-11	Ditch	299-W18-178	A7660
200 West	200-CW-5	216-Z-11	Ditch	299-W18-199	A7679
200 West	200-CW-5	216-Z-19	Ditch	299-W18-17	A5479
200 West	200-CW-5	216-Z-19	Ditch	299-W18-18	A7531
200 West	200-CW-5	216-Z-19	Ditch	299-W18-19	A7532
200 West	200-CW-5	216-Z-19	Ditch	299-W18-20	A5471
200 West	200-CW-5	216-Z-20	Crib	299-W18-29	A4941

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- HNF-EP-0063, 2002, *Hanford Site Solid Waste Acceptance Criteria*, Rev. 7, Fluor Hanford, Inc., Richland, Washington.
- HNF-PRO-20377, 2003, *Radiological Release Surveys for Material with Potential Volumetric Contamination*, Rev. 9, Fluor Hanford, Inc., Richland, Washington
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WMP-24648

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