

## Attachment 22

# Past Practice Units

## Table of Contents

<b>J.0 Corrective Action for Solid Waste Management Units.....</b>	<b>4</b>
<b>J.1 Solid Waste Management Units .....</b>	<b>4</b>
J.1.a Landfills .....	5
J.1.a.(1) Titan Missile Silo Complex.....	5
J.1.a.(2) Waste Disposal Trenches.....	7
J.1.a.(3) Acid Disposal Pits.....	9
J.1.a.(4) Disposal Area 9A.....	9
J.1.a.(5) Buried Drum Areas 1 and 2 .....	9
J.1.a.(6) Buried Transformer Skin Areas 1 and 2 .....	9
J.1.a.(7) Buried Waste Area .....	10
J.1.a.(8) Disposal Area 1.....	10
J.1.a.(9) PCBs in the Anchor Trench for Collection Pond No. 3.....	10
J.1.a.(10) Transformer Found in the Vicinity of PCB Trench 4.....	10
J.1.a.(11) Past Practice Disposal Area at the Containment Building.....	11
J.1.a.(12) Impacted Soils at the Stabilization Building .....	11
J.1.a.(13) PCB Trenches.....	12
J.1.a.(14) Disposal Trenches and Cells .....	13
J.1.b Surface Impoundments .....	14
J.1.c Waste Piles.....	15
J.1.d Land Treatment Units.....	15
J.1.e Tanks.....	15
J.1.f Injection Wells.....	16
J.1.g Incinerators.....	17
J.1.h Wastewater Treatment Tanks.....	17
J.1.i Container Storage Units .....	17
J.1.i.(1) Active Storage Units .....	17
J.1.i.(2) Temporary Storage Units.....	17
J.1.i.(3) Other Storage Units.....	18
J.1.j Waste Handling Areas.....	18
J.1.j.(1) Active Waste Handling Areas.....	18
J.1.j.(2) Other Waste Handling Areas .....	19
J.1.k Transfer Stations.....	19
J.1.l Waste Recycling Operations .....	19

**J.2 Releases..... 20**

J.2.a Releases to Groundwater..... 20

J.2.b Releases to Facility Soils ..... 21

J.2.c Releases to Off-Site Soils..... 22

J.2.d Releases to the Air..... 22

**J.3 References ..... 23**

## List of Tables

**Table J-1 Missile Silo Complex Unit**

**Table J-2 Disposal Trenches**

**Table J-3 Other Disposal Units**

**Table J-4 RCRA and TSCA Regulated Disposal Trenches and Cells**

**Table J-5 Surface Impoundments**

**Table J-6 Tanks**

**Table J-7 Container Management Units**

**Table J-8 Waste Handling Areas**

## J.0 Corrective Action for Solid Waste Management Units

To comply with IDAPA 58.01.05.008 [40 CFR 264.101, 270.14(d)], information regarding active and inactive solid waste management units (SWMUs) at the US Ecology Idaho, Inc. (USEI) facility is presented in this Section. The applicable regulatory definition of a SWMU and the interpretation of that definition as it applies to the facility are discussed in paragraph J.1. Available information regarding each SWMU, based on historical facility records, environmental reports, and interviews with individuals familiar with past facility operations, is also summarized in paragraph J.1. The facility boundary and the location of each SWMU are depicted on Drawing Numbers PRMI-T05, and PRMI-T05a. Known releases of hazardous constituents to the groundwater, soil, and air are discussed in paragraph J.2. References used to compile the information presented herein are given in paragraph J.3.

### J.1 Solid Waste Management Units

The definition of a SWMU, as related to Resource Conservation and Recovery Act (RCRA) corrective action, has been discussed in various regulatory guidance documents since the passage of the Hazardous and Solid Waste Amendments (HSWA) in 1984. The RCRA Facility Assessment Guidance, published in October 1986 by the USEPA, provides the following regulatory definition of a SWMU:

“A Solid Waste Management Unit is defined as any discernible waste management unit at a RCRA facility from which hazardous constituents might migrate, irrespective of whether the unit was intended for the management of solid and/or hazardous wastes.”

Clarifying memoranda distributed by the USEPA in 1985 and 1986 state that the regulatory definition of a SWMU was intended to include the following types of units that have traditionally been subject to regulatory control under RCRA:

- Container storage areas
- Tanks
- Surface impoundments
- Land treatment units
- Waste piles
- Landfills
- Incinerators
- Underground injection wells
- Other physical, chemical, and biological treatment units

In addition, recycling units, wastewater treatment units, and other units that are regulated under non-RCRA programs may also be considered SWMUs. The USEPA's clarifying memoranda state that routine and systematic releases of hazardous constituents or hazardous waste constitute, in effect, the management of waste. Therefore, an area at which routine and systematic releases of hazardous constituents or hazardous waste have taken place can reasonably be considered a SWMU.

Using the criteria set forth by the USEPA's clarifying memoranda and available information describing current and past practices associated with the facility, the following basis for interpretation of the definition of SWMUs has been developed:

- Active, discernible units in which waste containing hazardous constituents are managed are considered SWMUs. Furthermore, all RCRA-regulated units have been identified as SWMUs.

- Inactive or closed units, whether regulated or non-regulated, in which clean closure as defined by RCRA or its equivalent was not achieved are considered SWMUs.
- Locations where spills or releases of materials or wastes containing hazardous constituents occurred routinely and systematically and resulted in a release of hazardous constituents to soil and/or groundwater are considered SWMUs.
- Facility buildings with hazardous waste management activities taking place inside are considered SWMUs.
- Above ground and underground waste storage tanks are evaluated for classification as SWMUs.
- Waste generated by the facility is collected, accumulated, and stored prior to disposal. The waste accumulation and storage areas are considered SWMUs, but the process or area generating the waste is not considered an SWMU unless spills or releases containing hazardous constituents occurred routinely and systematically and resulted in a release of hazardous constituents to soil and/or groundwater.

RCRA-regulated and non-regulated SWMUs exist on-site. RCRA-regulated units are defined as those units that received RCRA-regulated waste on or after November 19, 1980. Units that received hazardous waste prior to November 19, 1980, are referred to as pre-RCRA units and are not considered regulated units. Toxic Substance Control Act (TSCA) wastes are also managed on-site. For the purpose, TSCA units are considered non-regulated SWMUs. Available facility records and environmental reports were reviewed to obtain information detailing current and past practices associated with both regulated and non-regulated units. Paragraph J.3 provides a list of these references. The following paragraphs document the types of SWMUs known to exist on-site, including each unit's location, dimensions, materials of construction, details regarding operation, wastes present, and the quantity of wastes involved, if known. Section E provides additional information regarding the types of wastes previously handled on-site. The facility boundary and the location of each SWMU discussed in the following paragraphs are depicted on Drawing Numbers PRMI-T05 and -T05a.

## ***J.1.a Landfills***

### **J.1.a.(1) Titan Missile Silo Complex**

A below-grade Titan missile silo complex was constructed on the property by the United States Department of Defense during the 1960s. The missile silo complex consisted of the following primary components:

- Silo 1 Area (Silo 1, Propellant Room 1, Equipment Room 1, and Exhaust Vent 1)
- Silo 2 Area (Silo 2, Propellant Room 2, Equipment Room 2, and Exhaust Vent 2)
- Silo 3 Area (Silo 3, Propellant Room 3, Equipment Room 3, and Exhaust Vent 3)
- Antenna (Radar) Silos 1 and 2
- Powerhouse
- Electrical Vault
- Exhaust Shaft and Intake Shaft
- Elevator Shaft
- Control Center

The missile silo complex was decommissioned by the Department of Defense in the late 1960s and sold for salvage. Salvage operations involved the recovery of metal structures and collapsible floating floors. The facility was purchased by Western Containment, Inc. (Wes-Con) in 1972 and a Conditional Use

Permit was granted by the State of Idaho in June 1973 to Wes-Con for the disposal of pesticide wastes within the decommissioned Titan missile silos. Disposal of hazardous wastes other than pesticide wastes required specific state approval.

Wes-Con began their pesticide disposal operations in November 1973 and from 1973 through 1978, the quantity of pesticides received accounted for approximately 95 percent of the total wastes handled by Wes-Con. The pesticide wastes were primarily process wastes from pesticide manufacturing plants in Portland, Oregon, (Chipman Rhodia) and Denver, Colorado (Shell Chemical Company). Non-pesticide wastes, including polychlorinated biphenyls (PCB), laboratory wastes, and electroplating sludges received from facilities in the United States and Canada, accounted for the other five (5) percent of the wastes handled by Wes-Con. In 1974 through 1975, PCB wastes generated in Idaho, Washington, Oregon, and Alaska were disposed at the facility. Kepone wastes, radioactive wastes, Department of Defense poisonous gases, and pressurized gases were specifically not accepted for disposal on-site.

Most, if not all, of the wastes handled from 1973 through 1978 were disposed in the silos and associated structures. Drums of waste were dropped or lowered into the silos and facility soil/clay was added prior to, during, and after waste unloading to prevent damage to the drums (i.e., crushing) and to suppress odors. Water was also added during the disposal operation to suppress dust, to obtain a proper mud consistency, and to reduce the possibility of spark formation, explosion, and fire. Records indicate significant quantities of water were used on at least two (2) occasions to suppress fires within the silos. Information specific to the missile silos and associated structures, including dimensions, disposal capacity, and regulatory status is summarized in Table J-1.

In 1980, Wes-Con received interim status under RCRA for disposal of approved hazardous wastes on-site. In June 1981, the facility was acquired by Envirosource, Inc. of Horsham, Pennsylvania. The facility was operated by Enviro-safe Services of Idaho, Inc. (ESII), a subsidiary of Envirosource, Inc., from June 1981 through January 2001 when the company was acquired by US Ecology Idaho, Inc. (USEI) a subsidiary of American Ecology Corporation.

All of the silos and ancillary structures ceased receiving wastes prior to November 19, 1980, and are therefore considered pre-RCRA units. Sampling and analysis of soil and groundwater at the facility was required by Administrative Order (pursuant to RCRA Sections 3008(a) and 3013) in 1983 to determine whether hazardous waste or hazardous waste constituents had been released from the silos or other underground structures. See paragraph J.2 for a discussion of the results of this investigation.

The silos and their ancillary equipment, exhaust and propellant shafts, the antenna silos, the elevator shaft, and the openings to the powerhouse dome were covered in August 1989 in accordance with the conditions set forth in the facility's original Part B Permit. The cover over the silos included construction of an engineered cap consisting of a gas venting layer (composite layer comprised of a drainage net placed between two (2) geotextile layers), a high-density polyethylene liner, a clay/low permeability soil cap, and a venting/carbon adsorption system. Certification of completion of cover activities was provided to the USEPA and State of Idaho Department of Health and Welfare, Division of Environmental Quality on October 30, 1989. A copy of the Construction Quality Assurance (CQA) Report, which documents compliance with the Part B permit requirements, was sent to the agencies as an attachment to the certification letter. A copy of this report is available at the facility.

In March 1986, an electrical vault at the facility was observed by facility personnel to contain liquid. The vault is located in the center of the southern portion of the facility, approximately 100 feet southeast of the Vehicle Wash Facility. Further observations indicated the liquid contained water and a water/heavy oil layer. Waste screening methods and on-site analyses indicated that the vault contained high concentrations of chlorinated hydrocarbons. PCBs were not detected above the method detection limit of 5 mg/ml in the water or water/heavy oil layer. Aside from the initial (on-site) characterization, sampling and analysis has not been performed to verify the contents of the vault. Information regarding the electrical vault has been included in Table J-1.

### J.1.a.(2) Waste Disposal Trenches

After the disposal capacities of the Titan missile silos (see paragraph J.1.a.(1)) were reached, disposal of wastes in unlined trenches was initiated. Waste Disposal Trenches 1-9 were utilized from the mid-1970s through 1980 for the disposal of wastes similar to those disposed in the silos. Facility records indicate that waste was last disposed in the trenches prior to November 19, 1980. As such, the trenches are considered pre-RCRA units. In 1983, the facility's Conditional Use Permit was revised by the state to prohibit the placement of liquid waste in trenches. Because the disposal trenches were utilized prior to this time, they may have received non-solidified liquid wastes. Available information regarding each trench is given below and summarized in Table J-2.

- Chemical Trench 1 is located in the northwestern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 620 feet long and 35 feet wide. The disposal capacity of the trench is estimated to have been 4,926 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, July 18, 1979.
- Waste Disposal Trench 1B is located in the northwestern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 590 feet long and 30 feet wide. The disposal capacity of the trench is estimated to have been 6,111 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, October 11, 1980.
- Waste Disposal Trench 2 is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 610 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 5,333 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, November 13, 1979.
- Chemical Trench 2B is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 470 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 2,889 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, February 4, 1980.
- Waste Disposal Trench 2C is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 570 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 4,630 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, September 9, 1980.
- Waste Disposal Trench 2D is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 280 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 1,741 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, October 13, 1980.
- Waste Disposal Trench 2E is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 270 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 2,259 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, October 30, 1980.
- Waste Disposal Trench 3 is located in the northwestern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 640 feet long and 30 feet wide. The disposal capacity of the trench is estimated to have been 6,037 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, October 19, 1980.

- Waste Disposal Trench 4 is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 520 feet long and 25 feet wide. The disposal capacity of the trench is estimated to have been 5,185 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, November 29, 1979.
- Waste Disposal Trench 4B is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 430 feet long and 25 feet wide. The disposal capacity of the trench is estimated to have been 4,074 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, September 11, 1980.
- Waste Disposal Trench 5 is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 230 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 1,963 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, November 18, 1980.
- Waste Disposal Trench 5B is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 230 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 1,815 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, July 24, 1980.
- Waste Disposal Trench 6 is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 210 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 1,889 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, March 24, 1980.
- Waste Disposal Trench 6A is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 180 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 1,111 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, November 18, 1980.
- Waste Disposal Trench 6B is located in the northeastern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 180 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 1,185 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, November 18, 1980.
- Waste Disposal Trench 7 is located in the northwestern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 220 feet long and 15 feet wide. The disposal capacity of the trench is estimated to have been 2,630 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, November 18, 1980.
- Waste Disposal Trench 8 is located in the northwestern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 240 feet long and 20 feet wide. The disposal capacity of the trench is estimated to have been 2,778 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to, or on, November 17, 1980.
- Waste Disposal Trench 9 is located in the northwestern portion of the facility. The trench was excavated to a depth of less than 20 feet below grade and was approximately 240 feet long and 40 feet wide. The disposal capacity of the trench is estimated to have been 3,500 cubic yards (yds<sup>3</sup>) and waste was last disposed in the trench prior to November 17, 1980.

All of the disposal trenches have been closed. Initial closure of each unit was performed when the disposal capacity of the trench had been reached or following final placement of waste within the trench. At initial closure, the disposal trench was filled to grade and covered with soils. In 1989, each trench was

covered with a minimum of an additional three (3) feet of clean soil in accordance with the conditions set forth in the facility's original Part B Permit.

### **J.1.a.(3) Acid Disposal Pits**

Acid wastes were disposed in two (2) small unlined pits located in the northeastern portion of the facility adjacent to the disposal trenches. Each pit is believed to be approximately 20 feet in diameter and 10 to 20 feet deep, with a disposal capacity estimated at 148 cubic yards. Bulk liquid acid wastes may have been placed directly in the acid disposal pits. Information regarding the acid disposal pits is summarized in Table J-3.

Waste was last disposed in the acid pits prior to November 18, 1980. Because waste disposal ceased prior to November 19, 1980, they are considered pre-RCRA units. Initial closure of the acid disposal pits was performed following final placement of waste within the pits. At initial closure, the acid disposal pits were filled to grade and covered with soils. In 1989, the acid disposal pits were covered with a minimum of an additional three (3) feet of clean soil in accordance with the conditions set forth in the facility's original Part B Permit.

### **J.1.a.(4) Disposal Area 9A**

Disposal Area 9A is located near the center of the facility south of Buried Drum Areas 1 and 2. This disposal area was identified during excavation of the Stabilization Facility foundation in March 1988. The area consists of two (2) unlined pits with a combined estimated disposal capacity of 1,389 cubic yards (yd<sup>3</sup>). Waste (primarily crushed drums and empty transformers) and soil were removed from the excavation and disposed in Cell 5. The area in the immediate vicinity of the Stabilization Facility foundation was overexcavated and backfilled to grade with soils.

The area is also a pre-RCRA unit because wastes were believed to have been last disposed in the pits prior to November 19, 1980. In 1989, the portion of Disposal Area 9A not covered by the Stabilization Facility foundation was covered with a minimum of three (3) feet of clean soil in accordance with the conditions set forth in the facility's original Part B Permit. Available information regarding Disposal Area 9A is summarized in Table J-3.

### **J.1.a.(5) Buried Drum Areas 1 and 2**

It is possible that buried 55-gallon drums containing hazardous waste may be located in two (2) areas:

- Buried Drum Area 1 - believed to be located southwest of Silo 3
- Buried Drum Area 2 - believed to be located southwest of Silo 2

Buried Drum Areas 1 and 2 are estimated to have had disposal capacities of 1,944 cubic yards and 13,852 cubic yards (yd<sup>3</sup>), respectively. Information regarding the types of waste contained in the buried drums is not available and both areas are believed to be unlined pits excavated to approximately 10 to 20 feet in depth. The buried drum areas would be considered pre-RCRA units because waste disposal within the pits is known not to have taken place after November 18, 1980. The areas have been filled to grade and covered with a minimum of three (3) feet of soils. Information regarding Buried Drum Areas 1 and 2 is summarized in Table J-3.

### **J.1.a.(6) Buried Transformer Skin Areas 1 and 2**

It is possible that buried transformer skins are located in two (2) areas near the center of the facility. The transformer skins were reportedly buried in two (2) unlined pits believed to be approximately 10 to 20 feet deep. Area 1, located adjacent to and west of PCB Trench 4, was approximately 250 feet long by 60 feet

wide. Area 2, located just west of Area 1, was approximately 90 feet long by 50 to 60 feet wide. Based on this information, the disposal capacities of Areas 1 and 2 are estimated to have been 11,111 cubic yards and 3,667 cubic yards, respectively. Both areas are considered pre-RCRA units because waste disposal within the pits ceased prior to November 19, 1980. Areas 1 and 2 have been filled to grade and covered with a minimum of three (3) feet of soils. Information regarding Buried Transformer Skin Areas 1 and 2 is summarized in Table J-3.

#### **J.1.a.(7) Buried Waste Area**

It is possible that buried waste contained in 55-gallon drums may have been placed in an unlined pit located in the center of the western half of the facility. The pit is approximately 240 feet long and 100 feet wide with an assumed depth of approximately 10 to 20 feet. The disposal capacity of the pit is estimated to have been 17,778 cubic yards. No information is available to indicate the types of waste buried at this location. However, the buried waste area is considered a pre-RCRA unit because waste disposal within the pit ceased prior to November 19, 1980. The area has been filled to grade and covered with a minimum of three (3) feet of soils. Information regarding the Buried Waste Area is summarized in Table J-3.

#### **J.1.a.(8) Disposal Area 1**

It is possible that buried waste may have been placed in an unlined pit located in the northeastern portion of the facility, south of Disposal Trench 2E and west of the Acid Disposal Pits. The pit comprising Disposal Area 1 is believed to be approximately 150 feet long, 100 feet wide, and 10 to 20 feet deep. The disposal capacity of the pit is estimated to have been 11,111 cubic yards. Although information regarding specific waste types is not available, it is known that waste disposal within the pit ceased prior to November 19, 1980. Based on this information, Disposal Area 1 is considered a pre-RCRA unit. The area has been filled to grade and covered with a minimum of three (3) feet of soils. Information regarding Disposal Area 1 has been summarized in Table J-3.

#### **J.1.a.(9) PCBs in the Anchor Trench for Collection Pond No. 3**

During excavation of the anchor trench for Collection Pond No. 3 in October 1993, PCB-contaminated soils were encountered. Soil samples were obtained from the affected soils and analyzed and results indicated the concentration of PCBs detected in the samples ranged from 5,100 to 22,000 ppm. Although buried debris was not observed in the excavated area, the affected area was assumed to be associated with past PCB disposal practices conducted on-site. Since PCB disposal is regulated under TSCA, the unit is considered non-regulated with respect to RCRA.

Soil was excavated from the affected area, containerized, and placed in an area designated for PCB storage and ultimate disposal. The bottom and perimeter of the anchor trench (i.e., beyond the excavated area) were sampled to define the extent of PCB contamination. Analytical results indicated that 0.20 ppm to 6,200 ppm of Aroclor 1260 was detected in the soil samples. Based on the analytical results, it was determined the area of affected soils extended east and south beyond the area excavated for the anchor trench. Following completion of the anchor trench, the area was backfilled with clean soil. The containerized soil was sampled, classified, and disposed accordingly. The USEPA and IDEQ were notified of the investigation findings. The area from which the PCB-contaminated soils were removed is delineated on Drawing Number PRMI-T05a. Information regarding this facility is summarized in Table J-3.

#### **J.1.a.(10) Transformer Found in the Vicinity of PCB Trench 4**

A buried transformer was unearthed in October 1991 during the regrading of an area excavated for cover material for PCB Trench 4. The transformer rolled to the bottom of the excavation and was partially covered with soil. The transformer was uncovered and soil samples were obtained from within the switch

box and the outside of the transformer. Although there was no visible soil staining, a soil sample was also taken from the side slope where the transformer had been dislodged. Analytical results indicated that 29 ppm, 2.5 ppm, and less than 1 ppm of Aroclor 1260 were detected in the soil samples from the switch box, transformer, and side slope soils, respectively.

The transformer was moved to the RCRA/PCB Storage Building, opened, checked for liquids, flushed, and disposed in Cell 14. Although PCBs were not detected in the soil samples collected within the cover material excavation, the areas from which the transformer had rolled and where it had been dislodged were over-excavated, the soil was disposed in Cell 14 and the excavation was backfilled to grade with clean fill. The USEPA and IDEQ were notified. The area where the transformer was found, located east of PCB Trench 4, is noted on Drawing Number PRMI-T05a. Facility information is summarized in Table J-3. Since PCB disposal is regulated under TSCA, the area is a non-regulated unit with respect to RCRA. There is no known history of past practice activities conducted in the area where the transformer was found.

### **J.1.a.(11) Past Practice Disposal Area at the Containment Building**

During excavation for construction of the Containment Building (now Container Storage Pad #8) in February 1994, a past practice debris/trash area was uncovered. Samples were collected from the debris and surrounding soil to determine if they were hazardous or had been impacted by hazardous constituents. Analytical results indicated that no hazardous constituents were detected in either the debris or the soil samples. Further investigation of the area indicated it contained debris from a fire clean-up, including a crushed 5-gallon pail, empty 1-gallon plastic containers of antifreeze, pieces of galvanized sheet-steel siding, charred wood, and plastic and paper from bags that had been destroyed (two (2) labels were found that suggest that the bags contained ammonia fertilizer). No liquids were observed in the excavated area.

Following receipt of the analytical results confirming that neither the debris or soils contained hazardous constituents in excess of regulatory levels, the debris and trash in the excavated area and three (3) to four (4) inches of soil were removed and disposed in Cell 14. The area was backfilled with soils and construction activities resumed. The USEPA and IDEQ were involved in oversight of the investigation and were kept informed of the investigation findings. The debris/trash area (D-2) is depicted on Drawing Number PRMI-T05a. Based on the nature of its contents, the debris/trash area was determined to be a non-regulated unit. A summary of facility information is summarized in Table J-3.

### **J.1.a.(12) Impacted Soils at the Stabilization Building**

During excavation of the foundation for the Stabilization Building in August 1997, discolored soil was observed. Specifically, discolored soils were identified during the excavation of the drainage pipe that runs in an east-west direction south of the foundation excavation area. Upon identification of the discolored soil, foundation excavation activities were stopped and soil samples were collected for analysis. The area (Area 1) was over-excavated a minimum of three (3) feet beyond the excavation required for the construction of the building. During excavation, soil samples were collected from the backhoe bucket. The discolored soils were stockpiled in an area north of Container Storage Pad 4 and northwest of Silo 2 pending final analytical results.

Analytical results indicated that no compounds were detected in excess of the maximum allowable TCLP concentrations for volatile organics, semi-volatile organics, organochlorine pesticides, chlorinated herbicides, and metals in the samples obtained from the stockpiled soil. However, post-excavation samples collected from the over-excavated area indicated that contamination similar to that initially discovered was still present beyond the excavated area. Specifically, semi-volatiles, organochlorine pesticides, chlorinated herbicides, and metals were detected in the post-excavation samples at levels less than the maximum allowable TCLP concentrations. Prior to resumption of field construction activities, the

sidewalls were covered with a minimum of three (3) feet of clean fill in accordance with the *Work Plan for Excavation of Soil for a Proposed Stabilization Building at USEI Site B*. The IDEQ was notified of the investigation findings. The area of affected soils (D-3) is identified on Drawing Number PRMI-T05a. In addition to the detailed description given herewith, a summary of facility information is summarized in Table J-3.

A second area (Area 2) of potentially impacted soils was identified during excavation of the Stabilization Building cement silo footing in January 1998. During excavation of this area, two (2) buried pipes were encountered approximately four (4) feet below initial grade. Excavation activities were halted when odors from the excavated area were noticed by construction personnel. Soil samples were collected and analyzed for volatile organics, semi-volatile organics, organochlorine pesticides, PCBs, chlorinated phenoxyacid herbicides, and metals. The results of the initial analysis indicated that concentrations of PCB constituents (Aroclor 1242, 1254, and 1260) were detected at or below 330 ug/kg in a composite soil sample (i.e., below the TSCA cleanup standard).

In accordance with the *Work Plan for Excavation of Soil for a Proposed Stabilization Building at USEI Site B*, the impacted soils were over-excavated a minimum of three (3) feet beyond that required for construction of the footings and, where possible, to the west of the water tanks. Following completion of over-excavation and removal of the pipes, confirmatory samples were obtained. The excavated soils (approximately 500 cubic yards) and pipes removed from the impacted area were stockpiled pending analytical results.

The analytical results for the post-excavation sampling were compared with the USEPA Region IX Preliminary Remedial Goals for residential soil. The results of that comparison indicated that neither the hazard quotients nor cancer risks for any of the target analytes were exceeded. Following completion of sampling activities, a minimum of three (3) feet of clean fill material was placed on the floor and over the exposed sidewalls of the excavation prior to resuming field construction activities. The excavated soil was used in Cell 14 as clean fill or cover material. Information regarding the second area of impacted soils at the Stabilization Building is summarized in Table J-3.

During removal and closure of the Containment Building (Stabilization Portion) following the November 17, 2018 incident, excavation activities will be performed to remove the concrete slab, Mixing Bin Tanks, and liner system components underlying the building. During excavation activities, all materials will be removed down to the compacted subgrade. Sampling will be performed on the subgrade material left beneath the excavation to determine the proper management for the soils removed from the area. The area will be considered clean for closure purposes prior to construction of the Indoor Stabilization Building. The Indoor Stabilization Building will occupy a portion of the footprint that was occupied by the Stabilization Portion of the Containment Building, with Mixing Tanks that are approximately five (5) feet shallower than the original Mixing Bin Tanks.

### **J.1.a.(13) PCB Trenches**

Wes-Con received approval from the State of Idaho in 1979 for the disposal of PCB wastes, including PCB spill debris, empty transformers, solidified PCB waste, and possibly non-solidified PCB waste in trenches. Following approval, four (4) unlined trenches were excavated and used for the disposal of PCBs. These trenches are designated as PCB Trench 1, PCB Trench 2, PCB Trench 3, and PCB Trench 4. The dimensions, capacities, and other pertinent information for each of the trenches are summarized in Table J-4.

Historical information and permit documents indicate that charcoal or carbon may have been placed on the bottom of some of the trenches prior to the initial placement of waste in the trenches. Historical records also indicate that the USEPA modified the facility's TSCA approval for PCB disposal in 1983 because of issues regarding the disposal of liquid PCB wastes within the trenches.

PCB disposal is regulated under the authorization of TSCA. Therefore, the PCB trenches are considered non-regulated units with respect to RCRA because they have not received hazardous waste (defined under RCRA) after November 19, 1980.

All four (4) PCB disposal trenches have been closed. Initial closure of PCB Trenches 1, 2, and 3 was conducted when each trench reached disposal capacity. At initial closure, these three (3) trenches were filled to grade with soils. In 1989, PCB Trenches 1, 2, and 3 were covered with a minimum of an additional three (3) feet of clean soil in accordance with the conditions set forth in the facility's original Part B Permit. PCB Trench 4 was capped in 1988 using a 40 millimeter high-density polyethylene single membrane liner, a minimum of two (2) feet of clay, and a minimum of 2½ feet of soil (by survey). Certification of Closure for these units was submitted in November 1991.

### **J.1.a.(14) Disposal Trenches and Cells**

In addition to the disposal and PCB trenches discussed above, four (4) other landfill units were constructed at the facility. These trenches and cells were utilized for the disposal of RCRA-regulated wastes. Non-solidified liquid wastes may have been placed in Trenches 10 and 11, which were constructed prior to 1983. Historical records indicate that an estimated 500 55-gallon drums containing 2,4,5-trichlorophenol waste, which was suspected of also containing 2,3,7,8-tetrachlorodibenzo-p-dioxin, were disposed annually in Trench 10 and Trench 11 during 1982 and 1983. In 1983, the facility's Conditional Use Permit was revised by the State of Idaho to prohibit the placement of liquid waste in the trenches. Information regarding each disposal unit is presented below and summarized in Table J-4.

- Cell 5 is located along the eastern boundary of Cell 16. The cell was originally excavated in 1984 and equipped with a synthetic liner, leachate collection system, and leak detection system. In early 1986, prior to the placement of waste in the cell, the cell was extended and the liner and leachate collection system were upgraded. The dimensions and capacity of Cell 5 are presented in Table J-4. PCB wastes and RCRA-regulated wastes have been disposed in the cell. Cell 5 is a regulated unit and was closed in 2005. Closure Certification was approved by IDEQ on February 6, 2006.
- Trench 10 is located along the northern boundary of the facility adjacent to and south of Trench 11 and the dimensions and capacity of Trench 10 are presented in Table J-4. RCRA-regulated wastes were last disposed in the trench prior to or on May 26, 1983. The trench, which is unlined, is currently inactive and has a native soil cover. Trench 10 is a regulated unit. An alternative cap (evaporative cap) was installed on Trenches 10 and 11. USEI also constructed a pilot demonstration cap on the eastern side of the facility to demonstrate the effectiveness of this capping technology. The IDEQ reviewed and approved a work plan that provides the performance criteria associated with the demonstration period. Based on the results of this study, Closure of Trench 10 was approved by IDEQ on July 12, 2006.
- Trench 11 is located along the northern boundary of the facility. The dimensions and capacity of Trench 11 are presented in Table J-4. The trench, which is unlined, began receiving wastes in April 1983. Based on information that liquid hazardous wastes had been disposed in drums in the trench, 55-gallon drums were exhumed from the trench in 1984. Removal of drums ceased after contaminant fate and transport modeling indicated contaminant migration from the trench would be negligible because of the fluid retention capacity of the soils beneath the trench. Trench 11 is a RCRA-regulated unit that has received RCRA-regulated wastes for final disposal. The trench is currently inactive and an alternative cap has been placed on Trench 11 as described above. Closure of Trench 11 was approved by IDEQ on July 12, 2006.
- Cell 14 is located along the northern boundary of Cell 15 and is currently active. The dimensions and capacity of Cell 14 are presented in Table J-4. Phase 1 of Cell 14 was constructed in 1988 and Phase 2 was constructed in 1993. Cell 14 is a regulated unit and will continue to receive

RCRA-regulated waste, TSCA regulated waste, and non-hazardous waste for disposal. The cell is equipped with synthetic liners, leachate collection systems, and leak detection system.

- Cell 15 is located due south of and adjacent to Cell 14 and the southern boundary of the facility. Cell 15 receives RCRA and TSCA regulated wastes and non-hazardous waste for disposal. The cell is equipped with synthetic liners, leachate collection systems and leak detection systems. Construction of Cell 15, Phase 4 was completed in 2009. Disposal of wastes into Cell 15, Phase 4 commenced in December 2009.
- Cell 16, is located due west of and adjacent to Cell 5, Cell 14, and the western boundary of the facility. Cell 16 receives RCRA regulated waste and non-hazardous waste for disposal. TSCA regulated waste will also be received for disposal in Cell 16 once approval is received from EPA. The cell is equipped with synthetic liners, leachate collection systems and leak detection systems.

Section D contains additional information concerning the design, construction, and operation of Trenches 10 and 11 and Cells 5, 14, 15, and 16. Section E contains descriptions of the types of waste disposed in the trenches and cells.

### ***J.1.b Surface Impoundments***

There are three (3) active surface impoundments located on-site: the Evaporation Pond and Collection Pond Nos. 1, and 3. All three (3) active impoundments were constructed during the summer of 1984. Information specific to each surface impoundment is described below and summarized in Table J-5.

- The Evaporation Pond is a RCRA-regulated unit located along the eastern boundary of the facility west of PCB Trench 4. The dimensions and capacity are presented in Table J-5. The Evaporation Pond was originally constructed to address concerns regarding facility runoff control and is equipped with synthetic liners, a leachate collection system, and a leak detection system. The Evaporation Pond may have received wastewater from the facility's sump in the past. The Evaporation Pond is currently utilized for treatment/disposal of aqueous wastes, including landfill leachate, that may be effectively concentrated by evaporation.
- Collection Pond No. 1 is located in the northwest corner of the facility and its dimensions and capacity are presented in Table J-5. The collection pond was originally constructed to collect runoff from the landfills and active facility area. The pond is equipped with synthetic liners, a leachate collection system, and leak detection system. It is currently utilized as a holding pond for facility surface water and runoff although it can receive other aqueous wastes. This collection pond is active and is a RCRA-regulated unit.
- Collection Pond No. 2 is located in the northeast corner of the facility and its dimensions and capacity are presented in Table J-5. The collection pond was originally constructed to collect runoff from the landfills and active facility area. The collection pond is currently utilized as a holding pond for facility surface water and runoff. It was clean closed in 2011.
- Collection Pond No. 3 is located between Silo 2 and Silo 3 near the center of the northern portion of the facility and its dimensions and capacity are presented in Table J-5. The collection pond was originally constructed to collect runoff from the stabilization plant pad and active facility area. It is equipped with synthetic liners, a leachate collection system, and leak detection system. The collection pond is currently utilized as a holding pond for facility surface water and runoff although it can receive other aqueous wastes. The collection pond is active and is a RCRA-regulated unit.

Section D contains additional information regarding the design, construction, and operation of the surface impoundments.

### ***J.1.c Waste Piles***

Not Applicable.

### ***J.1.d Land Treatment Units***

Not Applicable.

### ***J.1.e Tanks***

Above ground and underground storage tanks are utilized on-site for the storage of product, including diesel fuel, gasoline, propane, and oil, as well as wastes, including RCRA-regulated wastes and TSCA-regulated wastes. Underground storage tanks and reinforced concrete sumps are used to contain runoff from process areas, washdown water, vehicle wash wastewater, sanitary wastewater, and laboratory wastewater. A portable tank is utilized to contain process water for use on-site. Information regarding each tank or sump is provided below and summarized in Table J-6. See Section D for information pertaining to the design and construction of RCRA Tank Nos. 1, 2, 3, and 4.

- RCRA Tank No. 1 is utilized for the storage of liquid organic and inorganic wastes, including RCRA and TSCA-regulated wastes. The tank, which is approximately 12 feet in diameter and 20 feet high, was installed in 1987. The tank is constructed of carbon steel and is equipped with a concrete secondary containment structure.
- RCRA Tank No. 2 is identical to RCRA Tank No. 1 and is also permitted to be used for the storage of liquid organic and inorganic wastes, including RCRA and TSCA-regulated wastes, and was also placed into service in 1987.
- RCRA Tank No. 3 was installed in 1991 at the Plant Pad. It is permitted to be used for the storage of liquid organic and inorganic wastes, including RCRA- and TSCA-regulated wastes.
- RCRA Tank No. 4 is identical in construction to RCRA Tank No. 1 but was installed in 1987. The tank is permitted to be used for the storage of liquid organic and inorganic wastes, including RCRA- and TSCA-regulated wastes.
- Mixing Bin Tanks 1 and 2 were located in and were constructed in 1998 as part of the Containment Building (Stabilization Portion). The two (2) Tanks were used to treat a wide variety of wastes of both solid and liquid form. These wastes were both hazardous and non-hazardous. The tanks were constructed with an inner steel wear plate, and dual wall concrete containment system equipped with leak detection with an additional liner beneath the tanks as part of the Containment Building.
- PCB Tank No. 1 was utilized for the storage of liquid PCB wastes. The tank was installed in 1986. and was constructed of carbon steel, equipped with a steel secondary containment structure. PCB Tank No. 1 was used exclusively for the storage of TSCA-regulated wastes. PCB Tank No. 1 was closed and removed in 2016.
- PCB Tank No. 2 was identical in construction to PCB Tank No. 1 but was installed in 1988. The tank was used exclusively for the storage of TSCA-regulated wastes. PCB Tank No. 2 was closed and removed in 2016.

- The Diesel Flushing Tank was utilized for the storage of diesel fuel and the tank was installed in 1985. The diesel fuel contained in the tank was used for PCB flushing at the PCB Processing Facility. The tank was used exclusively for the storage of product. The Diesel Flushing Tank was closed and removed in 2016.
- The Diesel Fuel Tank and Gasoline Tank are utilized for the storage of fuels used for site equipment and vehicles. Each tank has a HDPE (high-density-polyethylene) lined basin that provides spill containment. Propane Tanks are also located on-site. These tanks are used exclusively for the storage of product.
- Two (2) Shop Oil Tanks are utilized in the Maintenance Shop for the storage of oil. A Shop Heating Oil Tank is used in the Maintenance Shop for the storage of heating oil and diesel fuel. These tanks are used for the storage of product.
- The Portable Polyethylene Tank is utilized for the storage of process water.
- The original Laboratory Sump was utilized to collect laboratory wastewater for facility processing or for off-site disposal. The tank, which was installed in 1988, was constructed of double-walled carbon steel with an epoxy lining. The tank was closed and removed in 2019 following the demolition of the original Laboratory/Receiving building.
- The Stabilization Laboratory Sump was installed in 1988 but was never used and was removed and placed in the boneyard. The tank is constructed of double-walled carbon steel. In 2019 the tank was repainted and then installed at the new Laboratory Building, located adjacent to Cell 15.
- Subsurface Septic Tanks are utilized for the storage of sanitary wastewater from toilets, showers, and the laundry. A total of five (5) septic tanks are present on-site. Two (2) of the tanks are used to hold gray water, which is treated in the Evaporation Pond. The remaining three (3) tanks are used for black water (sewage) storage. The black water tanks are periodically emptied by a licensed hauler and disposed at a licensed off-site facility. Analysis of the process water and sanitary wastewater indicates that hazardous constituents have not been detected in excess of regulatory levels. Any leach fields associated with the septic tanks that serviced discharges from original Department of Defense and Wes-Con structures have not been used since at least 1981. Such leach fields may have existed, but have never been identified. Leach fields were not constructed for the septic tanks which service the showers and laundry.
- The Vehicle Wash Facility Sump was installed at the Vehicle Wash Facility in 1984 and is utilized to contain vehicle wash wastewater. This system was upgraded in 2002 by the addition of a poly inner tank and a 2-part epoxy coating applied to the inner surface of the outer tank. This tank meets RCRA Subpart J requirements, but is non-regulated.
- There are two (2) sumps located at the Plant Pad. These sumps, constructed of reinforced concrete, were installed at the plant in 1983 to collect runoff from the process areas. The Plant Pad is located adjacent to the east edge of Container Storage Pad 4 (CSP #4) and contains the four (4) RCRA Tanks, and the Filtration (Decant) Building. The Pug Mill Mixing Unit was also located in the area prior to its closure. This area was sometimes referred to as the Process Plant.
- There are three (3) Containment Sumps located at the Stabilization Facility, which are constructed of steel-reinforced concrete and have corrosion resistant coatings. The sumps were installed in 1988 to collect washdown water and runoff and to contain spills on-site.

### ***J.1.f Injection Wells***

Not Applicable.

### ***J.1.g Incinerators***

Not Applicable.

### ***J.1.h Wastewater Treatment Tanks***

Not applicable - There are no active or inactive wastewater treatment tanks on-site. See paragraph J.1.e for septic tank information.

### ***J.1.i Container Storage Units***

A number of container storage units have been utilized on-site in conjunction with waste management and disposal operations. These include active, inactive, and closed container storage units. Several regulatory actions regarding drum management procedures on-site were undertaken during the three (3) year period from 1983 to 1985. As a result, measures were implemented which resulted in physical improvements to the facility and facility operations. Information regarding the active, inactive, and closed container storage units at the facility is summarized on Table J-7 and discussed in the following paragraphs.

#### **J.1.i.(1) Active Storage Units**

A number of units are currently utilized on-site for the storage of containerized hazardous waste. These active, RCRA-regulated storage units include:

- Container Storage Pad 4 (CSP #4)
- Container Storage Pad 5 (CSP #5)
- RCRA(Pad 7)/PCB Storage Building (Solids only)  
Container Storage Pad 8 (CSP #8)
- Truck Unloading Aprons #1, #2, & #3
- Stabilization Facility
- Container Storage Area 1 (CSA #1) (Solids only)

CSP 4 and 5 consist of subdivided, curbed, reinforced-concrete outside storage areas used for container receiving, processing, and storage. Historical information indicates that Container Storage Pads 4 and 5 were used as solidification process pads. Receiving, processing, and storage is also conducted within the RCRA(Pad 7)Storage Building, which has a curbed, concrete floor. Container Storage Pad 8 (previously the Containment Building (Debris Portion)) is a covered, unenclosed, subdivided storage area for receiving, processing, and storing containers. The Stabilization Facility serves a dual purpose as a container storage area and waste handling area; this unit has a curbed, sealed or coated, reinforced-concrete floor and provides outside receiving, processing, and storage areas for containers of liquid and solid waste. All of the areas listed above have been designed to provide segregated container management and storage. See Section D for detailed information regarding each container storage area.

#### **J.1.i.(2) Temporary Storage Units**

Temporary Storage Areas TS-1 through TS-23, located in the northern half of the facility, were utilized in the past for the temporary storage of drums and other containers of hazardous waste. Historical

information indicates that drums and containers may have been stored on bare ground in the temporary storage areas located within the area bounded by PCB Trench 4, Trench 10, and Cell 5.

The temporary storage areas are regulated units because they were used for management of RCRA-regulated wastes. Temporary Storage Areas TS-1 through TS-3, TS-6 through TS-11, TS-14 through TS-18, TS-22, and TS-23 are currently inactive. Temporary Storage Areas TS-4, TS-5, TS-12, TS-13, TS-19, TS-20, and TS-21 have been closed.

### **J.1.i.(3) Other Storage Units**

Raw materials utilized in the stabilization process are stored at the Plant Pad, an outside storage area comprised of a reinforced-concrete pad. Waste storage does not currently occur at the pad; however, historically the pad was permitted for the storage of RCRA-regulated wastes on an elevated conveyor.

Pad 6, consisting of a reinforced-concrete pad, is currently used as a truck loading/unloading area. Permitted storage of RCRA-regulated and TSCA-regulated wastes has not taken place at Pad 6. However, spillage associated with waste handling operations may have occurred.

### **J.1.j Waste Handling Areas**

In addition to those areas previously described, there are several other waste handling areas on-site. Descriptions of additional active and inactive waste handling areas on-site are provided in the following paragraphs. Information regarding these waste handling areas is also summarized in Table J-8.

#### **J.1.j.(1) Active Waste Handling Areas**

Active waste handling areas are utilized to support the hazardous waste treatment and disposal activities conducted on-site and are described below. See Section D for additional information regarding active operations.

- A Staging/Queuing Area is located north of the Maintenance Building. This area is utilized for sampling waste that is transported to the facility in bulk trucks. A steel platform (sampling stand) was erected to facilitate safe access to the interior of bulk trucks during waste sampling.
- The Vehicle Wash Facility is an active operation located in the southwestern portion of the facility and is used to decontaminate vehicles prior to their leaving the facility.
- The Filtration (Decant) Building is located at the Plant Pad and was utilized in the past for drum decanting operations. The building currently houses equipment associated with the leachate treatment system.
- The PCB Processing Facility is an inactive, non-RCRA-regulated unit located in the northern portion of the facility. The processing facility was utilized exclusively to handle PCB-contaminated wastes. Due to damage from the November 17, 2018 incident, the enclosure collapsed and was disposed in Cell 15. The steel floor remains in place at this time. The date of replacement of the enclosure is not known at this time.

RCRA(Pad 7) Storage Building is located in the center of the facility west of PCB Trench 4 and is utilized for the storage of RCRA regulated wastes.

- The Indoor Stabilization Building is located in the center of the facility. Waste treatment activities conducted in the Stabilization Building include the stabilization of "fine wastes," liquids, and other wastes.

- The Stabilization Facility, which is located near the center of the facility, consists of an outdoor area where hazardous waste stabilization activities are performed.

### **J.1.j.(2) Other Waste Handling Areas**

Other waste handling areas were typically utilized on-site in the past for the stabilization/solidification of hazardous wastes. A brief description of each area follows:

- The Pug Mill Mixing Unit, located at the Plant Pad, was utilized in the treatment (stabilization) of RCRA-regulated hazardous wastes. This system was closed in 2006 and has been removed.
- The Temporary Solidification Area was located south of Cell 5. The solidification area consisted of a lined pit approximately 50 feet long, 40 feet wide, and 10 to 20 feet deep. The pit was utilized for the solidification of wastes after November 19, 1980. Pursuant to an USEPA Consent Order issued in October 1984, the Temporary Solidification Area was closed in accordance with the provisions set forth in the Interim Status Removal and Decontamination Plan. This plan was submitted to the USEPA and IDEQ in September 1984. Information included in a letter indicated that closure of the solidification area involved the removal and disposal of the temporary solidification pad and several feet of underlying soils in Trench 11. In April 1985, additional sampling was conducted at the solidification pad area that confirmed the pad and affected soils had been removed.
- Solidification of liquid hazardous wastes was conducted at Solidification Pads 1, 2, and 3. These pads, which are considered RCRA-regulated units since they received hazardous waste for solidification after November 19, 1980, were originally constructed as the concrete aprons for the three (3) missile silos. Each pad was capped as part of the closure of its associated missile silo.
- The Maintenance Shop (also referred to as the Maintenance Building), a Quonset-hut type structure, is located in the southwestern portion of the facility. PCB contamination of the original concrete floor and a portion of the structure has resulted from past operations in the building. A concrete and a metal floor have been placed over the contaminated sub-flooring to permit continued use of the structure.
- TSCA regulated waste was handled within the PCB Capacitor (Process) Building. The building and surrounding area were clean closed in 1989 by removing the structure, concrete floor, and approximately 1 foot of soil beneath the floor. The resulting debris and soil were disposed in Cell 5. Sampling was performed in the building footprint to confirm that PCBs had not affected the surface soils in the immediate vicinity of the structure.

### **J.1.k Transfer Stations**

Not Applicable.

### **J.1.l Waste Recycling Operations**

Not Applicable.

## J.2 Releases

Sampling and analysis of groundwater, surface and subsurface soils, off-site surface soils, and air have been performed on-site to determine whether hazardous waste or hazardous waste constituents have been released from RCRA-regulated, pre-RCRA, and non-regulated SWMUs or as a result of facility operations. Groundwater and subsurface soils were sampled pursuant to an Administrative Order in 1983. Off-site soils and air were sampled in 1985 by the State of Idaho. A routine RCRA groundwater monitoring program was instituted at the facility in 1988.

There are no known releases from the facility that have impacted surface water. Furthermore, the potential for generation of subsurface gas (methane) is not anticipated since the facility does not accept, nor has it ever accepted, municipal wastes or putrescible wastes for disposal. Information regarding known releases to groundwater, facility surface and subsurface soils, off-site surface soils, and air is summarized in the following paragraphs.

### *J.2.a Releases to Groundwater*

Sampling and analysis of groundwater beneath the facility was required by an Administrative Order in 1983. Groundwater samples were collected for analysis from three (3) monitoring wells situated immediately adjacent to the missile silos. The analytical results indicated that carbon tetrachloride, chloroform, methyl chloride, methylene chloride, and trichloroethylene were detected in the samples in low parts per billion concentrations.

In 1984 and 1985, extensive facility investigations and hydrogeologic characterization studies were conducted to obtain additional information regarding the subsurface conditions beneath the facility. Although low concentrations of VOC's were detected in some of the samples obtained from the 18 perimeter monitoring wells, based on discussions with the pump manufacturer and a review of laboratory quality assurance/quality control data, the compounds reported were believed to be attributed to contaminated pumps and laboratory sample handling.

The USEPA and State of Idaho RCRA Part B Permit granted to the facility in December 1988 required implementation of a groundwater monitoring program. In 1988 through 1990, 20 new monitoring wells were installed to complete the groundwater monitoring network required by the Part B Permit. Seven (7) additional monitoring wells were installed in 1993 to allow for expanded facility monitoring. The groundwater monitoring network consists of 55 wells. Semi-annual groundwater monitoring is conducted to obtain water level and water quality data. Specifically, groundwater samples are collected and analyzed for 28 VOC's in addition to field purge parameters (specific conductivity, temperature, and pH) in accordance with the facility's existing Part B Permit requirements.

Additional sampling for constituents identified in IDAPA 58.01.05.008 [40 CFR Part 264, Appendix IX] was conducted at Monitoring Wells U-1, U-2, U-3, U-4, U-21, and U-23 in response to the detection of VOC's in groundwater samples from these wells. From 1991 to the present, a total of seven (7) VOC's have been detected in groundwater samples obtained from six (6) upper aquifer monitoring wells: U-1, U-20, U-21, U-22, U-23, and U-24. The VOC's identified include: carbon disulfide, carbon tetrachloride, chloroform, chloromethane, methylene chloride, 1,1,2,2-tetrachlorethane, and tetrachloroethene.

Carbon tetrachloride, chloroform, and chloromethane were detected in samples obtained from monitoring well (MW) U-21 (the downgradient well for Silo 2) in October 1991. The reported concentration for chloroform was above the detection monitoring criteria established by the facility's RCRA permit. As a result, an alternative concentration limit was set for chloroform, and a corrective measures study was completed for MW U-21. The corrective measures study concluded that fugitive vapors from Silo 2 were the source of the chloroform detected in samples obtained from the well. A compliance monitoring program for MW U-21 was adopted by permit modification in November 1993.

In September 1996, analytical results indicated that carbon tetrachloride was detected in the groundwater sample obtained from MW U-23 (the downgradient well for Cell 5) at a concentration in excess of the established detection monitoring criteria. Verification sampling conducted in October 1996 confirmed the presence of carbon tetrachloride in the samples obtained from the well. In July 1997, carbon tetrachloride was detected in the groundwater sample obtained from Monitoring Well U-1 at a concentration in excess of the established monitoring criteria. An evaluation of data pertinent to Monitoring Wells U-1 and U-23 indicated that vapors present in the subsurface soils at the facility may have come in contact with the groundwater at the wells.

An evaluation of the analytical results for the monitoring wells discussed in the preceding paragraphs indicated that the occurrence of the individual volatile organics in the groundwater samples appears to be sporadic and may, in fact, be the result of soil vapors which have come in contact with the upper aquifer rather than a contiguous groundwater contamination plume. The seven (7) upper aquifer wells, U-1, U-20, U-21, U-22, U-23, U-24, and U-25 are the only wells with detected levels of constituents in the groundwater. See Section E for a detailed discussion of the current facility groundwater monitoring program and potential impacts on groundwater quality from pre-RCRA units.

### ***J.2.b Releases to Facility Soils***

Surface soil sampling was conducted in response to an Administrative Order in 1985 to determine if hazardous contaminants had migrated off-site. Analytical results indicated that low levels of volatile organics and inorganics were detected in samples collected on-site. Acid extractables, base/neutrals, and PCBs were detected at varying concentrations in samples collected from across the facility. In addition, copper and lead concentrations were detected above background levels. Surface soils identified as contaminated were excavated from the affected areas and disposed. Surface soil sampling at the Stabilization Building excavation indicated elevated lead levels. Impacted soils were removed and disposed in Cell 14 prior to construction of the building.

Since the above described action, USEI has implemented sampling programs to determine if there are other areas that have been impacted by previous fine waste release around the Outdoor Stabilization Facility. Any impacted soils were excavated and treated, if necessary and disposed of within the active landfill.

Subsurface soils were sampled and analyzed as part of the installation of the monitoring wells associated with the missile silo complex. Hazardous constituents were detected in soils obtained at depth during drilling of the wells. The analytical results indicate that a release to the soils in the immediate vicinity of the missile silos has occurred. Additionally, a number of the past practice units that received solid and non-solidified liquid hazardous wastes for final disposal are unlined trenches or pits. As such, the potential for subsurface soil contamination exists in association with the following unlined units:

- Waste Disposal Trenches 1 through 9
- PCB Trenches 1 through 4
- Trenches 10 and 11
- Acid Disposal Pits 1 and 2
- Disposal Area 9A
- Buried Drum Areas 1 and 2
- Buried Transformer Skin Areas 1 and 2
- Buried Waste Area
- Waste Disposal Area 1

- Disposal Area at Container Storage Pad 8
- Impacted Soils at the Indoor Stabilization Building

VOC's have been detected in groundwater samples obtained from several monitoring wells included in the current facility Groundwater Monitoring Program. Although the source of the volatile organic contaminants has not been identified, contamination of the upper aquifer in the immediate vicinity of the monitoring wells appears to be the result of the diffusion of vapors into the groundwater. The gas vapors are most likely associated with pre-USEI disposal of solvents in pre-RCRA units.

Although spills of reportable quantities have occurred on-site, the majority of these spills involved limited quantities and took place within containment structures. Spills which occurred within containment structures were limited to fifty-five (55) gallons or less per occurrence. Spills are currently addressed in accordance with the procedures described in the Contingency Plan.

### ***J.2.c Releases to Off-Site Soils***

Surface soil samples were collected and analyzed to determine if hazardous waste constituents had migrated off-site following a flash flood event in August 1983. Soil samples were collected from active areas within the facility, the perimeter of the facility, the lower shoulder of Lemley Road, and various areas within Owyhee County in 1985. The samples were analyzed for priority pollutants using approved USEPA SW-846 methods and protocols. Based on the analytical results, no evidence of significant off-site migration was found. Furthermore, the potential for migration of hazardous constituents from the facility via surface water runoff is controlled by facility run-on/run-off control measures.

Subsurface soils in the immediate vicinity of Monitoring Well U-1, an off-site upgradient background well which was abandoned in July 2012 to facilitate construction of Landfill Cell 16, may have been impacted by vapors. Monitoring Well U-1 was located approximately 200 feet west of the active waste management area. An evaluation of the analytical results for groundwater samples obtained from Monitoring Well U-1 indicated that vapors present in the subsurface soils at the facility may have come in contact with the groundwater at the well. Groundwater contamination at this well has been attributed to the lateral migration of vapors from the facility. See Section E (Groundwater Section) for a detailed discussion of the facility's groundwater monitoring program.

### ***J.2.d Releases to the Air***

Odors have been detected on-site since at least 1977 by both employees and nearby residents. Numerous odor complaints were made by nearby residents during the period 1977 to 1980. Strong odors were detected by facility inspectors and nearby residents in 1980 in conjunction with waste operations at Silo 2.

Air sampling was conducted by the Occupational Safety and Health Administration in 1984 following reports of worker illnesses. Air, bulk waste, and wipe samples were collected to determine the possible causes of the illnesses and to identify potentially hazardous airborne constituents and hazardous areas. While the investigation did not detect impermissible levels of air toxics or reveal the specific cause of worker illnesses, it did observe that toxic vapors or gases could volatilize and be released from open drums, leaking drums, Silo 2, and other storage and disposal areas. Additional monitoring using portable organic vapor analyzers indicated that no major emissions were detected on-site. Historically, concentrations had ranged from less than 1 ppm to greater than 200 ppm at the missile silos and at active drum storage areas and disposal trenches/cells. Since this study was conducted, the silo complexes have been capped and emissions controlled with activated carbon. A silo emission study was completed in 2004. The study indicated that uncontrolled chloroform emissions exceeded IDEQ's Ambient Concentrations (AACC) at the property boundary. One of the primary objectives of this study was to develop a reliable carbon change out schedule consistent with predicted emissions. Current controls

include redundant activated carbon canisters at the vent outlet of each silo. Specifically, each silo is equipped with a primary and secondary (redundant) carbon canister. Silo emissions are measured each month using tubes that detect chloroform emissions. When the tube reading, adjusted for temperature, meets or exceeds 500 ppm of chloroform, the carbon in the primary canister is changed out, the secondary canister is moved into the primary position, and the canister containing the new carbon is placed into the secondary position. A more detailed description of the measurement and change-out processes are described in *Carbon Canister Change-out Work Plan Final Report*, August 11, 2010. The document is available for review at the site.

USEI also implemented an air monitoring program to track the ambient levels of radionuclides. Air samples are collected using several different methods (described in more detail in ERMP-03) at both occupational and non-occupational areas. Results indicate that levels are well below levels of concern and approximate background.

The USEPA conducted a Volatile Organic Compound Air Sampling Study/Preliminary Risk Assessment on-site in August 1986. The air sampling study was designed to characterize the types and quantities of hazardous air emissions that may have been released from the facility during waste handling and disposal operations at that time. Based on a records review and on-site screening results, sources of volatile organic compound emissions were identified. Ambient air sampling was conducted at various locations upwind and downwind of the facility and at a manway access exhaust vent near the powerhouse. Source sampling was also performed at the three (3) missile silos and at Trench 11. Results from both monitoring regimes were used to conduct a risk assessment to evaluate exposure for a receptor at the boundary of the property and for an off-site resident. Based on the operating conditions at the facility at that time, the evaluation resulted in ambient concentrations for non-carcinogenic compounds that were below those for which health impacts would be expected. The evaluation resulted in ambient concentrations of organic carcinogenic compounds that were below those for which health impacts would be expected for the residence scenario, but above those for which health impacts would be expected for the boundary scenario.

Potential air releases from active and inactive units have been greatly reduced through current operation and unit closure procedures. While releases of particulates from active landfill cells, the Stabilization Facility, and roadways, and volatile organics from the Evaporation Pond can occur, current operations at the facility are designed to minimize or eliminate these emissions. For example, only wastes meeting LDRs with minimal volatile organic concentrations are placed in the landfill cells and Evaporation Pond. The Indoor Stabilization Building will be constructed to handle "fine wastes," which will minimize the potential for emission of particulates, and in some cases, VOC's to the environment.

Engineered cover systems have been constructed at several of the pre-RCRA and non-regulated units. All closed units have a minimum of three (3) feet of soil cover in accordance with the conditions established by the facility's original RCRA Part B Permit. In addition, some of the units, including the missile silos and PCB Trench 4, have been capped using a high-density polyethylene liner and are equipped with an air venting/activated carbon system that meets the minimum required technology per 40 CFR 264. The cover systems help to reduce or eliminate the release of organics from these units.

## J.3 References

CH2M Hill, 1997, *Alternate Concentration Limit Demonstration for Monitoring Well U-23, USEI Site B*, June 1997.

CH2M Hill, 1997, *Work Plan for Excavation of Soil for a Proposed Stabilization Building at USEI Site*, July 1997.

Cleveland, Lee C., Letter to Kenneth D. Feigner, United States Environmental Protection Agency, regarding Interim Status Removal and Decontamination Plan for Site B Temporary Container Storage and Solidification Areas, dated September 13, 1985.

Envirosafe Services of Idaho, Inc., 1985, *Final Report on the Sampling and Analysis of Soils on and Around the USEI Site B Facility, Grand View, Idaho*, November 1984.

Envirosafe Services of Idaho, Inc., 1995, *USEI Site Tank Summary*, August 3, 1995.

Envirosafe Services of Idaho, Inc., 1996, *USEI Site B (IDD073114654) Operating Unit Summary*, February 28, 1996.

Envirosafe Services of Idaho, Inc., 1984, *Final Report on the Sampling and Analysis of Soils on and around the USEI Site B Facility, Grand View, Idaho*, November 1984.

Envirosafe Services of Idaho, Inc., 1996, *IDD073114654 Permit Reopener*, July 27, 1996.

Envirosafe Services of Idaho, Inc., *Past Practice Files*, various dates.

Envirosafe Services of Idaho, Inc., 1998, *Report of Removal of Potentially Impacted Soils for Stabilization Building Construction, Cement Silo Footings Area at USEI Site B*, January, 1998.

Envirosafe Services of Idaho, Inc., 1997, *Surface Soil Sampling and Risk Determination, Final Report*, September 1, 1997.

Fred C. Hart Associates, Inc., 1985, *Exposure Information Report, Envirosafe Services of Idaho, Grandview, Idaho*, Volume 1, August 20, 1985.

GCA Corporation, 1986, *Preliminary Assessment Report, Envirosafe of Idaho, Inc. - Site B*, Final Report, July 1986.

Report of Removal of Impacted Soils for Stabilization Building at USEI Site B, September 1997.

United States Environmental Protection Agency, 1985-1986, *Clarifying Memoranda*.

United States Environmental Protection Agency, 1994, *RCRA Corrective Action Plan*, May 1994.

United States Environmental Protection Agency, 1986, *RCRA Facility Assessment Guidance*, October 1986.

United States Environmental Protection Agency, 1993, *RCRA Inspection Manual*, October 1993.

United States Environmental Protection Agency, 1979, *Siting of Hazardous Waste Management Facilities and Public Opposition, Wes-Con, Inc., Grand View and Bruneau, Idaho*, Final Report.

United States Environmental Protection Agency - Region 10, 1987, *VOC Air Sampling Study/ Preliminary Risk Assessment, ESI, Grandview, Idaho*, February 1987.

United States Environmental Protection Agency - Region 10, 1988, *RCRA Facility Assessment, EnviroSAFE Services of Idaho, Inc.*, August 4, 1988.

Welsh, Michael S., Letter to Charles E. Findley, United States Environmental Protection Agency, and Cheryl R. Koshuta, State of Idaho, regarding Certification of Cover to Past Practice Units Silo 1, Silo 2, and Silo 3 with their Ancillary Equipment, Exhaust and Propellant Shafts, the Radar Silos, the Elevator Shaft, and the Openings to the Powerhouse Dome, dated October 30, 1989.

Weston, 1987, *Resource Conservation and Recovery Act Part B Permit Application, EnviroSAFE Services of Idaho, Inc.*, Volume 1, Section B, March 31, 1987.

**Table J-1**  
**Missile Silo Complex Units**

Unit Designation <sup>(a)</sup>	Approximate Diameter (Feet)	Approximate Depth (Feet)	Maximum Disposal Capacity (CY)	Date of Last Waste Disposal	RCRA Status	Operational Status
Silo 1 Area:						
Silo 1	40	160	12,566 <sup>(b)</sup>	17-Dec-79	Pre-RCRA	Closed <sup>(c)</sup>
Silo 1 Equipment Room	42	68	---	17-Dec-79	Pre-RCRA	Closed <sup>(c)</sup>
Silo 1 Propellant Room	40	35	---	17-Dec-79	Pre-RCRA	Closed <sup>(c)</sup>
Silo 1 Exhaust Vent	9.5	57.5	---	17-Dec-79	Pre-RCRA	Closed <sup>(c)</sup>
Silo 2 Area:						
Silo 2	40	160	12,556 <sup>(b)</sup>	13-Nov-80	Pre-RCRA	Closed <sup>(c)</sup>
Silo 2 Equipment Room	42	68	---	13-Nov-80	Pre-RCRA	Closed <sup>(c)</sup>
Silo 2 Propellant Room	40	35	---	13-Nov-80	Pre-RCRA	Closed <sup>(c)</sup>
Silo 2 Exhaust Vent	9.5	57.5	---	13-Nov-80	Pre-RCRA	Closed <sup>(c)</sup>
Silo 3 Area:						
Silo 3	40	160	12,566 <sup>(b)</sup>	14-Nov-80	Pre-RCRA	Closed <sup>(c)</sup>
Silo 3 Equipment Room	42	68	---	14-Nov-80	Pre-RCRA	Closed <sup>(c)</sup>
Silo 3 Propellant Room	40	35	---	14-Nov-80	Pre-RCRA	Closed <sup>(c)</sup>
Silo 3 Exhaust Vent	9.5	57.5	---	14-Nov-80	Pre-RCRA	Closed <sup>(c)</sup>
Antenna Silo 1	38	67	2,815	29-May-80	Pre-RCRA	Closed <sup>(c)</sup>
Antenna Silo 2	38	67	2,815	29-May-80	Pre-RCRA	Closed <sup>(c)</sup>
Powerhouse	130	60	0	18-Nov-80	Pre-RCRA	Closed
Electrical Vault	Varies	Varies	93	18-Nov-80	Pre-RCRA	Closed
Control Center	100	40	8,148	16-Oct-80	Pre-RCRA	Closed
Elevator Shaft	30	70	2,963	27-Oct-80	Pre-RCRA	Closed <sup>(c)</sup>
Exhaust and Intake Shaft	27	40	704	25-Aug-80	Pre-RCRA	Closed

(a) The location of each unit is shown on Drawing Number PRMI-T05a.

(b) Disposal capacity given above represents the maximum disposal capacity for the silo area (silo, equipment room, propellant room, and exhaust vent).

(c) Unit has been capped using a high-density polyethylene liner and low permeability soil, and is equipped with an air venting/activated carbon system (minimum required technology in accordance with 40 CFR Part 264). Certification of completion of cover activities was provided to the USEPA and IDEQ on October 30, 1989.

**Table J-2  
Disposal Trenches**

<b>Unit Designation<sup>(a)</sup></b>	<b>Approximate Footprint (Feet)</b>	<b>Maximum Depth (Feet)</b>	<b>Estimated Disposal Capacity (CY)</b>	<b>Date of Last Waste Disposal</b>	<b>RCRA Status</b>	<b>Operational Status</b>
Disposal Trench 1 (DISP-1)	620 x 35	20	4,926	18-Jul-79	Pre-RCRA	Closed
Disposal Trench 1B (DISP-1B)	590 x 30	20	6,111	11-Oct-80	Pre-RCRA	Closed
Disposal Trench 2 (DISP-2)	610 x 20	20	5,333	13-Nov-79	Pre-RCRA	Closed
Disposal Trench 2B (DISP-2B)	470 x 20	20	2,889	04-Feb-80	Pre-RCRA	Closed
Disposal Trench 2C (DISP-2C)	570 x 20	20	4,630	09-Sep-80	Pre-RCRA	Closed
Disposal Trench 2D (DISP-2D)	280 x 20	20	1,741	13-Oct-80	Pre-RCRA	Closed
Disposal Trench 2E (DISP-2E)	270 x 20	20	2,259	30-Oct-80	Pre-RCRA	Closed
Disposal Trench 3 (DISP-3)	640 x 30	20	6,037	19-Oct-80	Pre-RCRA	Closed
Disposal Trench 4 (DISP-4)	520 x 25	20	5,185	29-Nov-79	Pre-RCRA	Closed
Disposal Trench 4B (DISP-4B)	430 x 25	20	4,074	11-Sep-80	Pre-RCRA	Closed
Disposal Trench 5 (DISP-5)	230 x 20	20	1,963	18-Nov-80	Pre-RCRA	Closed
Disposal Trench 5B (DISP-5B)	230 x 20	20	1,815	24-Jul-80	Pre-RCRA	Closed
Disposal Trench 6 (DISP-6)	210 x 20	20	1,889	24-Mar-80	Pre-RCRA	Closed
Disposal Trench 6A (DISP-6A)	180 x 20	20	1,111	18-Nov-80	Pre-RCRA	Closed
Disposal Trench 6B (DISP-6B)	180 x 20	20	1,185	18-Nov-80	Pre-RCRA	Closed
Disposal Trench 7 (DISP-7)	220 x 15	20	2,630	18-Nov-80	Pre-RCRA	Closed
Disposal Trench 8 (DISP-8)	240 x 20	20	2,778	17-Nov-80	Pre-RCRA	Closed
Disposal Trench 9 (DISP-9)	240 x 40	20	3,500	17-Nov-80	Pre-RCRA	Closed

(a) The location of each unit is shown on Drawing Number PRMI-T05.

**Table J-3  
Other Disposal Units**

Unit Designation <sup>(a)</sup>	Approximate Footprint (Feet)	Approximate Depth (Feet)	Estimated Disposal Capacity (CY)	Date of Last Waste Disposal	RCRA Status	Operational Status
Acid Disposal Pit 1	20 (Dia.)	10 to 20	148	18-Nov-80	Pre-RCRA	Closed
Acid Disposal Pit 2	20 (Dia.)	10 to 20	148	18-Nov-80	Pre-RCRA	Closed
Disposal Area 9A	Varies <sup>(b)</sup>	Varies <sup>(b)</sup>	1,389	18-Nov-80	Pre-RCRA	Closed
Buried Drum Area 1	Varies <sup>(b)</sup>	10 to 20	1,944	18-Nov-80	Pre-RCRA	Closed
Buried Drum Area 2	Varies <sup>(b)</sup>	10 to 20	13,852	18-Nov-80	Pre-RCRA	Closed
Buried Transformer Skin Area 1	250 x 60	10 to 20	11,111	18-Nov-80	Pre-RCRA	Closed
Buried Transformer Skin Area 2	90 x 60	10 to 20	3,667	18-Nov-80	Pre-RCRA	Closed
Buried Waste Area	240 x 100	10 to 20	17,778	18-Nov-80	Pre-RCRA	Closed
Disposal Area 1	150 x 100	10 to 20	11,111	18-Nov-80	Pre-RCRA	Closed
PCBs in Anchor Trench for Collection Pond No. 3	Varies <sup>(b)</sup>	Varies <sup>(b)</sup>	Varies <sup>(b)</sup>	Prior to Oct-93	Non-regulated <sup>(c)</sup>	Inactive <sup>(d)</sup>
Transformer near PCB Trench 4	Not applicable	Not applicable	Not applicable	Prior to Oct-91	Non-regulated <sup>(c)</sup>	Closed
Disposal Area at Containment Building (CSP #8)	Varies <sup>(b)</sup>	Varies <sup>(b)</sup>	Not applicable	Prior to Feb-94	Non-regulated	Closed
Impacted Soils at Stabilization Building Area 1	Varies <sup>(b)</sup>	Varies <sup>(b)</sup>	Not applicable	Prior to Aug-1997	Non-regulated	Closed
Impacted Soils at Stabilization Building Area 2	Varies <sup>(b)</sup>	Varies <sup>(b)</sup>	Not applicable	Prior to Jan-1998	Non-regulated	Closed

(a) The location of each unit is shown on Drawing Number PRMI-T05a.

(b) Irregularly shaped area. Exact dimensions unavailable.

(c) It is assumed that only PCB wastes were associated with the unit. Since PCB disposal is regulated under TSCA, the unit is considered non-regulated with respect to RCRA.

(d) Remediation measures completed.

**Table J-4**  
**RCRA and TSCA Regulated Disposal Trenches and Cells**

<b>Unit Designation<sup>(a)</sup></b>	<b>Approximate Footprint (Feet)</b>	<b>Approximate Depth (Feet)</b>	<b>Estimated Disposal Capacity (CY)</b>	<b>Date of Last Waste Disposal</b>	<b>RCRA Status</b>	<b>Operational Status</b>
PCB Trench 1 (PCB-1)	910 x 20	20	13,481	(b)	Non-regulated (c)	Closed
PCB Trench 2 (PCB-2)	1,300 x 40	18	34,667	(b)	Non-regulated (c)	Closed
PCB Trench 3 (PCB-3)	600 x 50	30	33,333	(b)	Non-regulated (c)	Closed
PCB Trench 4 (PCB-4)	890 x 115	35	110,000	07-Aug-86	Non-regulated (c)	Closed (d)
Cell 5	1,185 x 210	50	240,000	02-Feb-05	Regulated	Closed
Trench 10	1,300 x 85	40	77,000	26-May-83	Regulated	Closed (e)
Trench 11	1,250 x 120	40	345,000	17-Mar-00	Regulated	Closed (e)
Cell 14	1,750 x 1,040	50-75(f)	2,101,739	Not Applicable	Regulated	Active
Cell 15	768 x 2,260	55-65 (f)	4,800,000	Not Applicable	Regulated	Active
Cell 16	1,150 x 2,800	30	10,262,000	Not Applicable	Regulated	Active

(a) The location of each unit is shown on Drawing Number PRMI-T05a.

(b) Information is not available.

(c) It is assumed that only PCB wastes were associated with this unit. Since PCB disposal is regulated under TSCA, the trench is considered a non-regulated unit with respect to RCRA.

(d) PCB Trench 4 has been capped using a high-density polyethylene liner

(e) Unit has an evapotranspiration cover.

(f) From original grade.

**Table J-5**  
**Surface Impoundments**

<b>Unit Designation<sup>(a)</sup></b>	<b>Approximate Footprint (Feet)</b>	<b>Estimated Storage Capacity (Gallons)</b>	<b>RCRA Status</b>	<b>Operational Status</b>
Evaporation Pond	450 x 240	6,090,871 (b)	Regulated	Active
Collection Pond No. 1	170 x 95	279,502 (b)	Regulated	Active
Collection Pond No. 2	160 x 95	427,000(b)	Regulated	Closed in 2011
Collection Pond No. 3	200 x 170	531,962 (b)	Regulated	Active

(a) The location of each unit is shown on Drawing Number PRMI-T05a.

**Table J-6  
Tanks**

Unit Designation(a)	Approximate Footprint (Feet)	Approximate Depth (Feet)	Estimated Storage Capacity (Gallons)	Type of Tank	Type of Waste Stored	Date Installed	RCRA Status	Operational Status	Location
RCRA Tank No. 1	12 (Dia.)	20	16,930	Aboveground	(b)	1987	Regulated	Active	Plant Pad
RCRA Tank No. 2	12 (Dia.)	20	16,930	Aboveground	(b)	1987	Regulated	Active	Plant Pad
RCRA Tank No. 3	12 (Dia.)	20	16,930	Aboveground	(b)	1991	Regulated	Active	Plant Pad
RCRA Tank No. 4	12 (Dia.)	20	16,930	Aboveground	(b)	1987	Regulated	Active	Plant Pad
Mixing Tank No. 1	15 x 20	13	24,200	in and aboveground	(i)	2020	Regulated	Active	Indoor Stabilization Building
Mixing Tank No. 2	15 x 20	13	24,200	in and aboveground	(i)	2020	Regulated	Active	Indoor Stabilization Building
PCB Tank No. 1	10 (Dia.)	18.42	10,821	Aboveground	(c)	1986	Non-regulated	Closed	
PCB Tank No. 2	10 (Dia.)	18.42	10,821	Aboveground	(c)	1988	Non-regulated	Closed	
Diesel Flushing Tank	10 (Dia.)	20	11,750	Aboveground	(d)	1985	Non-regulated	Closed	
Diesel Fuel Tank	10 (Dia.)	18	10,000	Aboveground	(d)	(a)	Non-regulated	Active	
Gasoline Tank	10 (Dia.)	9	5,000	Aboveground	(d)	(a)	Non-regulated	Active	
Propane Tank	3.5 (Dia.)	20	192 cu. ft.	Aboveground	(d)	(a)	Non-regulated	Active	
Shop Oil Tanks (2 tanks)	(a)	(a)	285	Aboveground	(d)	(a)	Non-regulated	Active	Maintenance Shop
Shop Heating Oil Tank	(a)	(a)	250	Aboveground	(d)	1984	Non-regulated	Active	Maintenance Shop
Portable Polyethylene Tank	(a)	(a)	6,500	Aboveground	(d)	1990	Non-regulated	Active	
Laboratory Sump	(a)	(a)	1,000	Underground	(e)	1988	Non-regulated	Closed	Laboratory (Prior to 11/17/2018)
Laboratory Sump	(a)	(a)	1,000	Underground	(e)	1988	Non-regulated	Active	Laboratory
Septic Tanks	(a)	(a)	(a)	Underground	(f)	(a)	Non-regulated	Active	Decon Area
Septic Tank	(a)	(a)	1,250	Underground	(f)	2019	Non-regulated	Active	Administration Area
Vehicle Wash Facility Sump	18.5 x 6	6.5	5,520	Concrete Sump	(g)	1984	Non-regulated	Active	Vehicle Wash Facility
Plant Pad Sump	(a)	(a)	3,740	Concrete Sump	(h)	1983	Non-regulated	Active	Plant Pad
Plant Pad Sump	(a)	(a)	6,600	Concrete Sump	(h)	1983	Non-regulated	Active	Plant Pad
Containment Sump	(a)	(a)	15,450	Concrete Sump	(h)	1988	Non-regulated	Active	Stabilization Facility
Containment Sump	(a)	(a)	583	Concrete Sump	(h)	1988	Non-regulated	Active	Stabilization Facility
Containment Sump	(a)	(a)	1,492	Concrete Sump	(h)	1988	Non-regulated	Active	Stabilization Facility

- (a) Information is not available.
- (b) The tank is used for the storage of liquid organic and inorganic wastes, including TSCA-regulated and RCRA-regulated wastes.
- (c) The tank is used exclusively for storage of liquid PCB wastes. As such, the tank is considered non-regulated under RCRA.
- (d) The tank is used to contain product (diesel fuel, gasoline, propane, or oil). The portable polyethylene tank is used to contain process water.
- (e) The tank is used to collect laboratory wastewater for on-site processing or off-site disposal.
- (f) Septic tanks are used to hold sanitary wastewater prior to onsite (gray water) or off-site (black water) treatment.
- (g) The tank is used to collect wastewater generated during truck washing operations. Analysis of the washwater indicates hazardous constituents have not been detected in excess of regulatory levels in the samples collected from the tank. As such, the tank is considered a non-regulated unit under RCRA.
- (h) The sumps are used to collect runoff from specific process areas at the ESII facility.

**Table J-7  
Container Management Units**

Unit Designation <sup>(a)</sup>	Storage Area Description <sup>(b)</sup>	RCRA Status	Operational Status
<b>Active Storage Units:</b>			
Container Storage Pad 4	Curbed concrete pad (outdoor area)	Regulated	Active
Container Storage Pad 5	Curbed concrete pad (outdoor area)	Regulated	Active
RCRA (Pad 7) Building	Curbed concrete pads (indoor area)	Regulated	Active
Container Storage Pad 8 and Truck Unloading Aprons	Curbed concrete pads (outdoor)	Regulated	Active
Stabilization Building Truck Unloading Aprons	Curbed concrete pads (outdoor)	Regulated	Active
Stabilization Facility	Curbed concrete pads (outdoor area)	Regulated	Active
Container Storage Area 1	Compacted soil (outdoors area) <sup>(c)</sup>	Regulated	Active
<b>Temporary Storage Units:</b>			
Temporary Storage Area TS-1 (TS-1)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-2 (TS-2)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-3 (TS-3)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-4 (TS-4)	Temporary container storage <sup>(d)</sup>	Regulated	Closed
Temporary Storage Area TS-5 (TS-5)	Temporary container storage <sup>(d)</sup>	Regulated	Closed
Temporary Storage Area TS-6 (TS-6)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-7 (TS-7)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-8 (TS-8)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-9 (TS-9)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-10 (TS-10)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-11 (TS-11)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-12 (TS-12)	Temporary container storage <sup>(d)</sup>	Regulated	Closed
Temporary Storage Area TS-13 (TS-13)	Temporary container storage <sup>(d)</sup>	Regulated	Closed
Temporary Storage Area TS-14 (TS-14)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-15 (TS-15)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-16 (TS-16)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-17 (TS-17)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-18 (TS-18)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-19 (TS-19)	Temporary container storage <sup>(d)</sup>	Regulated	Closed
Temporary Storage Area TS-20 (TS-20)	Temporary container storage <sup>(d)</sup>	Regulated	Closed
Temporary Storage Area TS-21 (TS-21)	Temporary container storage <sup>(d)</sup>	Regulated	Closed
Temporary Storage Area TS-22 (TS-22)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
Temporary Storage Area TS-23 (TS-23)	Temporary container storage <sup>(d)</sup>	Regulated	Inactive
<b>Other Storage Units:</b>			
Plant Pad	Concrete pad (outdoors area)	Regulated	Active
Pad 6	Concrete pad (outdoors area)	Non-regulated	Active

(a) The location of each unit is shown on Drawing Number PRMI-T05a.

(b) Details regarding dimensions and waste storage capacities are discussed in paragraph J.1.i of this Section, if known.

(c) Staging/storage area for solids only.

(d) Historical information indicated that drums and containers may have been stored on bare ground in the temporary storage areas located within the area bounded by PCB Trench 4, Trench 10, and Cell 5.

**Table J-8  
Waste Handling Areas**

<b>Unit Designation<sup>(a)</sup></b>	<b>Operations Associated with Each Unit<sup>(b)</sup></b>	<b>Date of Last Waste Disposal</b>	<b>RCRA Status</b>	<b>Operational Status</b>
<b>Active Waste Handling Areas:</b>				
Staging/Queing Area	Sampling waste transported in bulk trucks	Not Applicable	Non-regulated	Active
Vehicle Wash Facility	Exterior washing of trucks prior to departure from site	Not Applicable	Non-regulated	Active
Filtration (Decant) Building	Houses leachate treatment system	Not Applicable	Regulated	Active
PCB Processing Building	Processing of PCB contaminated wastes for disposal	Not Applicable	Non-regulated	Inactive
RCRA (Pad 7) Building	Storage/handling of RCRA regulated wastes	Not Applicable	Regulated	Active
Stabilization Building	Stabilization of "fine wastes," liquids, and other wastes	Not Applicable	Regulated	Active
Stabilization Facility	Stabilization of hazardous wastes (outdoor area)	Not Applicable	Regulated	Active
<b>Other Waste Handling Areas:</b>				
Pug Mill Mixing Unit	Stabilization of hazardous wastes	(c)	Regulated	Inactive
Temporary Solidification Area	Solidification of liquid hazardous wastes (unlined pit)	Not Applicable	Regulated	Closed
Solidification Pads 1, 2, and 3	Solidification of liquid hazardous wastes	Not Applicable	Regulated	Closed
Maintenance Shop	Used in past as PCB Waste Handling Building	(c)	Non-regulated	Inactive
PCB Capacitor (Process) Building	Storage/handling of PCB contaminated wastes	Not Applicable	Non-regulated	Closed

(a) The location of each area is shown on drawing number PRMI-T05a.

(b) Details regarding dimensions and waste handling capacities are discussed in paragraph J.1.j of this Section, if known.

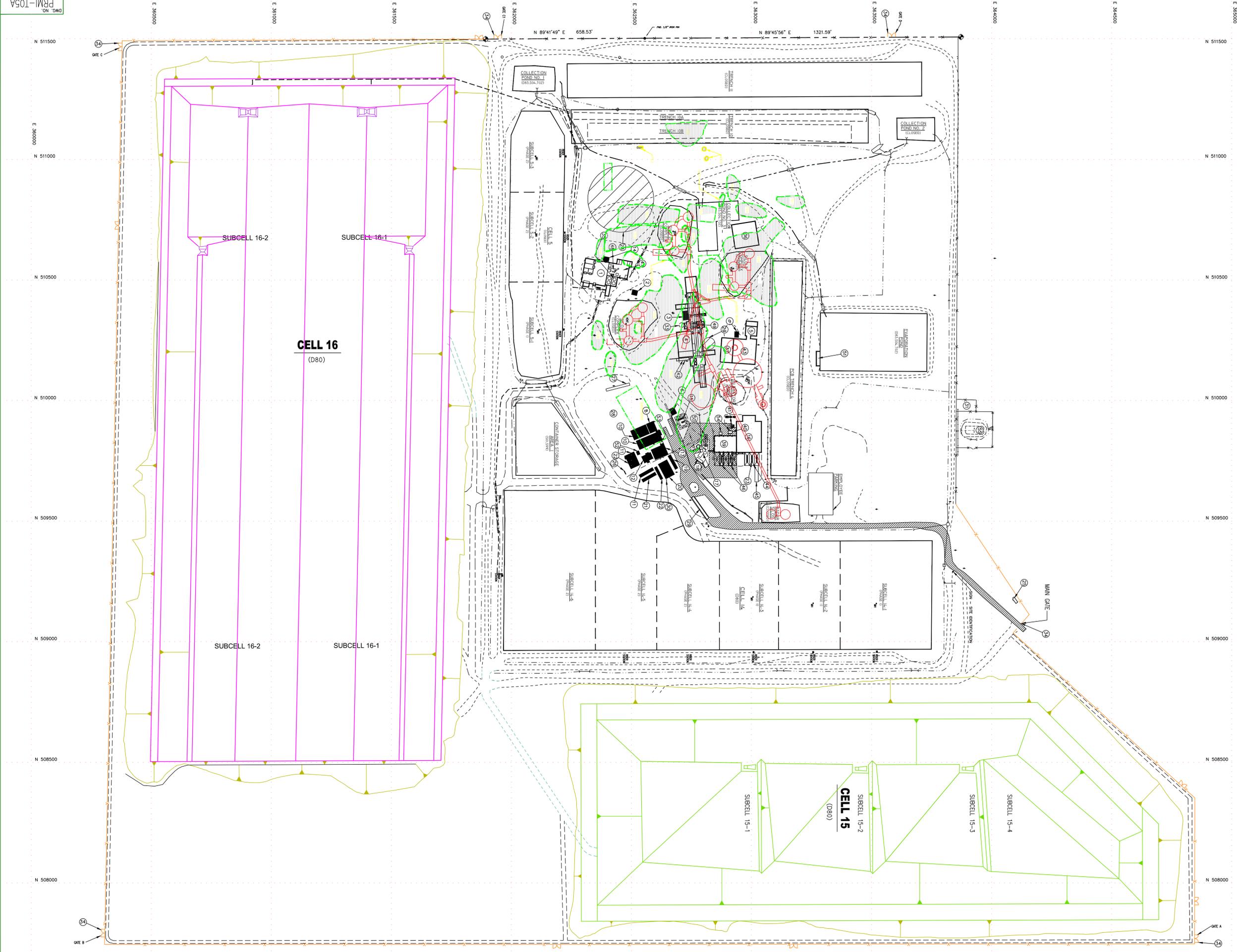
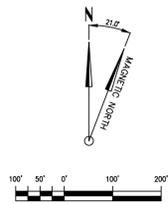
(c) Information is not available.

LEGEND

- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 

FACILITY KEY AND PROCESS CODES

- |                                       |   |
|---------------------------------------|---|
| 1 CONTAINER STORAGE PAD 4 (S01,104)   | 30 FLAG POLE  |
| 2 COMPRESSOR/WC BUILDING              | 31 WEATHER STATION  |
| 3 STABILIZATION FACILITY OFFICE       | 32 "UNASSIGNED"   |
| 4 STABILIZATION FACILITY (S01,104)    | 33 UNDERGROUND CLEAN WATER TANK                                     |
| 5 PCB PROCESSING BUILDING             | 34 EXHAUSTION GATES   |
| 6 VEHICLE WASH FACILITY               | 35 RCRA STORAGE TANKS-4 UNITS (S02,101)                             |
| 7 "UNASSIGNED"                        | 36 CONTAINER STORAGE PAD 5 (S01,104)                                |
| 8 FIELD TECH/PPE BUILDING             | 37 PAD 6-HIGH/PIPE STORAGE BUILDING APRON                           |
| 9 STORAGE BUILDING                    | 38 "UNASSIGNED"   |
| 10 MAINTENANCE SHOP                   | 39 STABILIZATION BUILDING (S04,101,104)                             |
| 11 SECONDWATER BUILDING               | 40 BAC HOUSE  |
| 12 LAB OFFICES                        | 41 HEPA FILTER HOUSE AND FAN  |
| 13 RECEIVING OFFICE/LAB               | 42 YARD TRUCK SCALE   |
| 14 PAD 4 OFFICE                       | 43 CONTAINER STORAGE PAD 7 (S01,104)                                |
| 15 FUEL STORAGE TANKS/FUELING STATION | 44 CONTAINMENT BUILDING TRUCK UNLOADING APRONS 1,2 AND 3 (S01)      |
| 16 CONTAINMENT BUILDING (S04,101,104) | 45 CONTAINMENT BUILDING TRUCK UNLOADING RAMP APRONS 1,2 AND 3 (S01) |
| 17 PUMP HOUSE/WATER STORAGE TANKS     | 46 CONTAINMENT BUILDING TRUCK UNLOADING APRONS 1 AND 2 (S01)        |
| 18 COMPRESSED GAS STORAGE AREA        | 47 PROCESS PLANT PAD  |
| 19 ADMINISTRATION BUILDING            | 48 LEACHATE TREATMENT SYSTEM  |
| 20 ADMINISTRATION LUNCH ROOM          | 49 STABILIZATION FACILITY ADDITIVE SILOS                            |
| 21 ADMINISTRATION BUILDING            | 50 STABILIZATION BUILDING ADDITIVE SILOS                            |
| 22 RECORDS STORAGE BUILDING           | 51 EVAPORATION POND LOADING/UNLOADING AREA                          |
| 23 REAGENT STORAGE                    | 52 OFFICE TRAILER SWAGERT TANK                                      |
| 24 "UNASSIGNED"                       | 53 LAB WASTE HOLDING TANK   |
| 25 SECURITY BUILDING                  | 54 CONTROL HOUSE  |
| 26 PROPANE TANK                       | 55 ET CAP TEST PAD  |
| 27 SAMPLING PLATFORM                  |   |
| 28 STAGING AREA                       |   |
| 29 TRUCK SCALE                        |   |



C					
B	RR	02/26		CELL 16 MODIFICATIONS	
A	JY/WH			PART B PERMIT RENEWAL APPLICATION	
REV.	BY	CHK'D	DATE	DESCRIPTION	PROJ. PLAN DATE
SITE B GRAND VIEW, IDAHO US EPA ID NO. IDD 073 114 654					
TITLE: FACILITY PLAN WITH PRE-RCRA UNIT					
DRAWN BY:	DATE:	SCALE:	FILE CODE:	PRINT/ISSUE:	REV. NO.:
MX	2/05/98				
CHECKED:	DATE:	ENGINEER:	DATE:	PRM-T05A	
PROJ. MGR.:	DATE:	APPROVED:	DATE:	PRM	B