

DOE/NE-ID-11180
September 2004



U.S. Department of Energy
Idaho Operations Office

INEEL Sitewide Institutional Controls Annual Report – FY 2004



Idaho National Engineering and Environmental Laboratory

**DOE/NE-ID-11180
Revision 0
Project No. 23689**

INEEL Sitewide Institutional Controls Annual Report – FY 2004

September 2004

**Prepared for the
U.S. Department of Energy
Idaho Operations Office**

ABSTRACT

This report on the FY 2004 INEEL Sitewide institutional controls assessment presents the results of the annual inspection of Comprehensive Environmental Response, Compensation, and Liability Act sites at the Idaho National Engineering and Environmental Laboratory. These activities are described in the *INEEL Sitewide Institutional Controls Plan* (DOE/ID-11042). Inspections were performed during the spring and early summer of 2004 by the Long-Term Stewardship Program and representatives of the various facilities.

The assessment showed that the various institutional control measures in place across the INEEL are functioning as desired. The information on individual CERCLA sites found in the database was reviewed as part of the annual assessment. Minor revisions were made to reflect changing status of sites that are currently in remediation. Two sites have been added to the database: CPP-61 and TSF-06 Area 10 have been designated as “No Further Action” sites in recent decision documents.

CONTENTS

ABSTRACT.....	iii
ACRONYMS.....	vii
INTRODUCTION.....	1
1. WAG 1 TAN.....	3
1.1 Methods of Assessment.....	3
1.2 Results of the FY 2004 Assessments.....	4
2. WAG 2 TRA.....	6
2.1 Methods of Assessment.....	6
2.2 Results of the FY 2004 Assessments.....	7
3. WAG 3 INTEC.....	8
3.1 Methods of Assessment.....	8
3.2 Results of the FY 2004 Assessments.....	9
4. WAG 4 CFA.....	14
4.1 Methods of Assessment.....	15
4.2 Results of the FY 2004 Assessments.....	15
5. WAG 5 ARA/PBF.....	15
5.1 Methods of Assessment.....	16
5.2 Results of the FY 2004 Assessments.....	16
6. WAG 6 BORAX.....	17
6.1 Methods of Assessment.....	17
6.2 Results of the FY 2004 Assessments.....	17
7. WAG 7 RWMC.....	18
8. WAG 8 NRF.....	18
9. WAG 9 ANL-W.....	19

10.	WAG 10 Sitewide concerns	19
10.1	Methods of Assessment	19
10.2	Results of the FY 2004 Assessments	20
11.	REFERENCES	21

FIGURES

1-1.	Locations of Waste Area Groups at INEEL Site	2
------	--	---

TABLES

1-1.	Institutional control sites inspection at WAG 1	4
1-2.	TSF-23—The following wells were locked with signs in good condition	5
2-1.	Institutional control sites inspection at WAG 2	7
3-1.	Institutional control sites inspection at WAG 3, Group 1 Tank Farm Soils	10
3-2.	Institutional control sites inspection at WAG 3, Group 2 Soil Under Buildings	10
3-3.	Institutional control sites inspection at WAG 3, Group 3 Other Surface Soils	10
3-4.	Institutional control sites inspection at WAG 3, Group 4 Perched Water Wells	11
3-5.	Institutional control sites inspection at WAG 3, Group 5 Snake River Plain Aquifer	12
3-6.	Institutional control sites inspection at WAG 3, Group 6 Buried Gas Cylinders	13
3-7.	Institutional control sites inspection at WAG 3, Group 7 SFE-20 Hot Waste Tank System	13
3-8.	NSDs during FY 2003	14
4-1.	Institutional control sites inspection at WAG 4	15
5-1.	Institutional control sites inspection at WAG 5	16
6-1.	Institutional control sites inspection at WAG 6	17
10-1.	Institutional control sites inspection at WAG 10	20

ACRONYMS

ANL-W	Argonne National Laboratory–West
ARA	Auxiliary Reactor Area
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFA	Central Facilities Area
CFLUP	Comprehensive Facility and Land Use Plan
DOE	U.S. Department of Energy
EDMS	Electronic Data Management System
EPA	U.S. Environmental Protection Agency
FY	fiscal year
IC	institutional control
IET	Initial Engine Test
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
LOFT	Loss-of-Fluid Test
NRF	Naval Reactors Facility
NSD	Notice of Soil Disturbance
OMRE	Organic Moderated Reactor Experiment
OU	operable unit
PBF	Power Burst Facility
PCB	polychlorinated biphenyl
RPSSA	Radioactive Parts Security Storage Area
RWMC	Radioactive Waste Management Complex
SMC	Specific Manufacturing Capability
SPERT	Special Power Excursion Reactor Test
TAN	Test Area North

TRA	Test Reactor Area
TSF	Technical Support Facility
WAG	waste area group
WRRTF	Water Reactor Research Test Facility

INEEL Sitewide Institutional Controls Annual Report – FY 2004

INTRODUCTION

The Idaho National Engineering and Environmental Laboratory (INEEL) Site occupies 2,305 km² (890 mi²) in southeast Idaho. The site consists of several primary facility areas situated on an expanse of otherwise undeveloped, high-desert terrain. Buildings and structures at the INEEL are clustered within these primary facility areas, which are typically less than a few square miles in size and separated from each other by miles of primarily undeveloped land.

The primary use of INEEL land is to support facility and program operations and as buffer and safety zones around the facilities. Most of the work at the INEEL is performed within the site's primary facility areas:

- Test Area North (TAN)—Waste Area Group (WAG) 1
- Test Reactor Area (TRA)—WAG 2
- Idaho Nuclear Technology and Engineering Center (INTEC)—WAG 3
- Central Facilities Area (CFA)—WAG 4
- Auxiliary Reactor Area (ARA)/Power Burst Facility (PBF)—WAG 5
- Boiling Water Reactor Experimental Area (BORAX)—WAG 6
- Radioactive Waste Management Complex—WAG 7
- Naval Reactors Facility (NRF)—WAG 8
- Argonne National Laboratory-West (ANL-W)—WAG 9
- INEEL Sitewide—WAG 10.

The remaining INEEL land, which is largely undeveloped, is used for environmental research, ecological preservation, socio-cultural preservation, grazing, and some forms of recreation.

INEEL operations largely take place within the site's primary facility areas. In the Federal Facilities Agreement and Consent Order (DOE-ID 1991), the INEEL Site was divided into WAGs to facilitate environmental remediation efforts. Refer to Figure 1-1 for a map showing the location of the WAGs at the INEEL Site. WAG 10 is comprised of the lands not associated with the main facilities. Remedial efforts have progressed at all WAGs and are at completion in some locations. In accordance with guidance from the U.S. Environmental Protection Agency (EPA), institutional controls have been implemented where hazards to human health or the environment are present. Institutional controls (ICs) include a variety of nonengineered controls and are used during the remedial action phase, and after remediation is complete if hazards remain. Institutional controls are assessed annually to see that the controls are operating in accordance with their intended purpose. This report describes the 2004 INEEL Sitewide assessment and is divided into sections corresponding to each WAG.

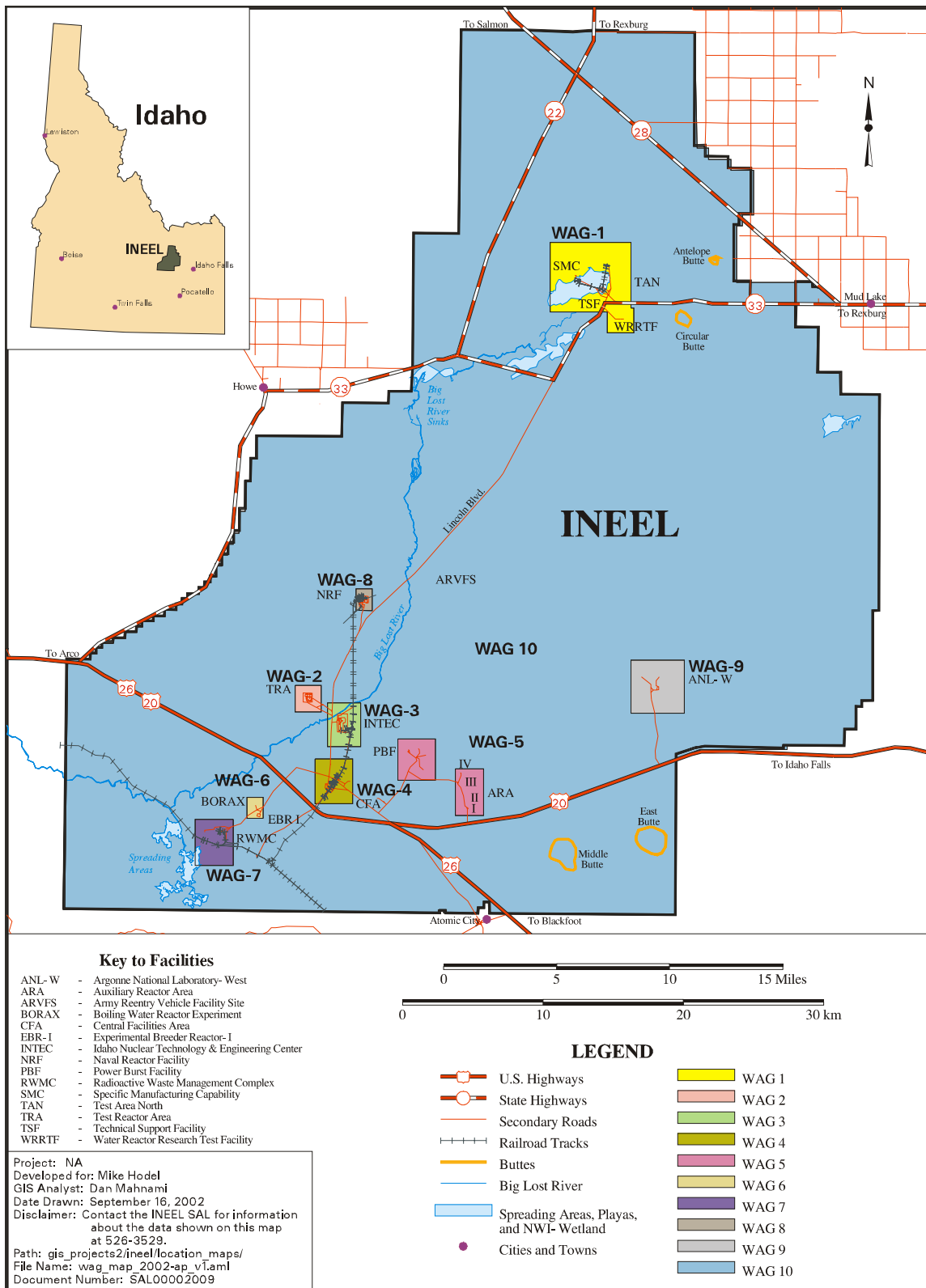


Figure 1-1. Locations of Waste Area Groups at INEEL Site.

1. WAG 1 TAN

Test Area North (TAN) is located in the north-central portion of the INEEL Site and is approximately 41 ha (102 acres). TAN is designated as WAG 1. TAN was originally built between 1954 and 1961 to support the Aircraft Nuclear Propulsion Program sponsored by the U.S. Air Force and the U.S. Atomic Energy Commission. Upon termination of this research in 1961, the area facilities were converted to support a variety of other U.S. Department of Energy (DOE) research projects. From 1962 through the 1980s, the area supported reactor safety testing at the Loss-of-Fluid Test (LOFT) Facility. Beginning in 1980, TAN was used to conduct work with material from the 1979 Three-Mile Island reactor accident. This material has been relocated to storage at INTEC.

Current activities at TAN include the manufacture of armor for military vehicles at the Specific Manufacturing Capability (SMC) Facility. Operational activities have ceased at other TAN facilities and closure of TAN is in progress. Decontamination and decommissioning activities and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial activities have been accelerated in 2004. Current activities include:

- Remediation of Technical Support Facility (TSF)-03, Burn Pit
- Remediation of Water Reactor Research Test Facility (WRRTF)-01 Burn Pits
- Remediation of TSF-26 PM-2A area, and the adjacent TSF-06 Area B contaminated soils
- The removal of TAN-616, adjacent to TSF-09/18 (V-Tanks)
- Cleaning and draining of the TAN-607 fuel storage basin
- Remediation of contaminated soil at TSF-09/18, V-Tanks
- Inactivation and removal of many buildings included in the WRRTF.

1.1 Methods of Assessment

Twenty institutionally controlled areas require annual inspection at TAN, in accordance with the *INEEL Site-wide Institutional Controls Plan* (DOE-ID 2004a). They are Initial Engine Test (IET)-04, TSF-03, TSF-05, TSF-06 Area 1, TSF-06 Area 5, TSF-06 Area 11, TSF-06 Area B, TSF-07, TSF-08, TSF-09, TSF-10, TSF-18, TSF-23, TSF-26, TSF-28, TSF-29, TSF-39, TSF-42, TSF-43, and WRRTF-01. The areas are assessed for the presence and condition of warning signs, the general condition of the site, and the effectiveness of controls, such as access restrictions at radiologically contaminated sites.

The WAG 1 CERCLA sites are recorded in the Comprehensive Facility and Land Use Plan (CFLUP) (DOE-ID 1997), available at <http://cflup.inel.gov>. The CFLUP records are reviewed and updated as part of the annual assessment.

Two sites, TSF-05 and -23, are maintained as part of OU 1-07B. Annual assessment of the institutional controls at these sites is performed with the OU 1-10 institutional control sites. The TSF-05 and TSF-23 sites are associated with the groundwater contamination beneath TAN, and numerous associated wellheads and well houses have been inspected.

1.2 Results of the FY 2004 Assessments

The WAG 1 institutional controls assessment was performed on April 20, 2004. The assessment team included G. Lynn Schwendiman, the WAG 1 representative, and D. Renee Fitch, a representative of Long-Term Stewardship, who performed the WAG 1 inspections in previous years.

The accelerated closure activity at TAN was very evident at the time of the assessment visit. Some CERCLA sites were not accessible due to construction and remediation activities. Where possible, the CERCLA warning signs were observed from a distance. All CERCLA sites were found to have at least one CERCLA warning sign visible on April 20, 2004. Refer to Table 1-1 for a listing of the WAG 1 CERCLA sites and Table 1-2 for the WAG 1 wells assessed, including comments. Log sheets of the assessment are stored in the Electronic Data Management System (EDMS) project files.

The CERCLA module of the CFLUP was reviewed and updated during the 2004 assessment, in accordance with *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a). The CERCLA module of the CFLUP is available electronically at <http://cflup.inel.gov>. TSF-03, TSF-09, TSF-18 and WRRTF-01 sites were revised to record the change from “remediation pending” status to “remediation in progress” status. TSF-06 Area 10, the buried reactor vessel site, has been added to the listing of WAG 1 CERCLA sites. This site was changed from a “No Action” site to a “No Further Action” site and is now posted with a warning sign and listed in the CFLUP, per the Record of Decision Amendment (DOE-ID 2004b).

Table 1-1. Institutional control sites inspection at WAG 1.

Site	Signs	Comments	Actions Needed
WRRTF-01	Good condition	None	None
TSF-05 Well House	Good condition	New well house in place	None
TSF-28 Sewage Plant	Good condition	None	None
TSF-26 PM-2A Site	Good condition	Remediation in progress	None
TSF-10 Disposal Pond	Good condition	None	None
TSF-06 Area B	Good condition	Remediation in progress	None
TSF-08 Mercury Site	Good condition	None	None
TSF-09 V-1, -2, -3	Good condition	Work zone, access denied	None
TSF-18 V-Tank 9	Good condition	Work zone, access denied	None
TSF-06 Area 1	Good condition	Work zone, access denied	None
TSF-43 RPSSA	Sign removed	Work zone, access denied,	None
TAD-06 Area 10	New sign	None	None
TSF-29 Acid Pond	Good condition	Work zone, access denied	None
TSF-06 Area 11	Good condition	Work zone, access denied	None
TSF-06 Area 5	Good condition	Work zone, access denied	None
TSF-42 Pipe	Good condition	None	None
TSF-39 Transite	Good condition	None	None
TSF-03 Burn Pit	Good condition	Remedial work in progress	None
IET-04 Stack Rubble	Good condition	None	None
TSF-07 Disposal Pond	Good condition	None	None

Table 1-2. TSF-23—The following wells were locked with signs in good condition.

Well Number	Comments	Well Number	Comments
ANP-8	Old well house removed	TAN-29	
GIN-1		TAN-30A	
GIN-2		TAN-31	New well house noted
GIN-3		TAN-32	
GIN-4		TAN-33	
GIN-5		TAN-34	
TAN-1		TAN-35	
TAN-2		TAN-36	
TAN-3		TAN-37	Temporary wooden well house in place
TAN-4		TAN-38	
TAN-5		TAN-39	
TAN-6		TAN-40	
TAN-7		TAN-41	
TAN-8		TAN-42	
TAN-9		TAN-43	
TAN-10		TAN-44	
TAN-10A		TAN-45	
TAN-11		TAN-46	
TAN-12		TAN-47	
TAN-13A		TAN-48	
TAN-14		TAN-49	
TAN-15		TAN-50	
TAN-16		TAN-51	
TAN-17		TAN-52	
TAN-18		TAN-53A	
TAN-19		TAN-54	
TAN-20		TAN-55	
TAN-21		TAN-56	
TAN-MW-2		TAN-57	
TAN-22A		TAN-58	
TAN-23A		TAN-CH1	
TAN-24A		TAN-CH2	
TAN-25		TSF-05	New well house present
TAN-26		USGS-24	

Table 1-2. (continued).

Well Number	Comments	Well Number	Comments
TAN-27		TAN-D1	
TAN-28		TAN-D2	
TAN-1859	New well house noted	TAN-1861	
TAN-1860			

The FY 2004 assessment at WAG 1 of institutionally controlled areas determined that no negative conditions exist requiring maintenance or repairs, with the exception of TSF-43, the Radioactive Parts Security Storage Area (RPSSA). The sign was removed during demolition of the RPSSA buildings (TAN-647 and 648). Pads under the buildings, TAN-1006 and 1007, still exist and soil under the pads is contaminated. A new sign showing the contaminated soil area has been placed at the access point. A sign for TSF-29, the acid pond, has also been placed at the access point. An amendment to the OU 1-10 ROD was signed in February 2004 (DOE-ID 2004b) that categorized TSF-06 Area 10 as a “No Further Action” site requiring institutional controls, including a warning sign. The sign for TSF-06 Area 10 has been posted at the access point to TSF-06. Currently, all institutional control sites in the TSF-06 area have signage that is either visible from outside the area fence or visible at the access point. The sign at WRRTF-01, the burn pits, has been replaced to show that two burn pits are institutionally controlled and to advise visitors not to disturb the caps. All other WAG 1 institutional controls are operational and protective of human health and the environment.

The IC records in the CFLUP were reviewed and updated during 2004 and are available electronically at <http://cflup.inel.gov>. TSF-06 Area 10 has been added to the WAG 1 sites listed in the CFLUP. Extensive remediation has occurred at WAG 1 subsequent to this inspection. Many buildings and structures have been decommissioned. It is recommended that new photographs be obtained for CERCLA sites that have been affected during a future assessment cycle and existing photographs in the CFLUP be replaced as needed.

2. WAG 2 TRA

The Test Reactor Area (TRA) was established in the early 1950s to study the effects of radiation on materials, fuels, and equipment. Three major reactors have been built at TRA, including the Materials Test Reactor, the Engineering Test Reactor, and the Advanced Test Reactor. The Advanced Test Reactor is currently the only major operating reactor at TRA. A variety of laboratory facilities used for isotope production, broad-based research and development, analysis, and testing reside at the Test Reactor Area.

The TRA is designated as WAG 2. WAG 2 cleanup actions have included the removal and containment of contaminated soils from a wastewater disposal pond and the construction of caps and barriers at other contaminated soil sites. A ground water monitoring program is continuing at the area to examine contaminant concentrations in the underlying Snake River Plain Aquifer and the perched water bodies beneath the TRA area.

2.1 Methods of Assessment

Fourteen institutionally controlled areas require annual inspection at TRA, in accordance with the *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a) They are TRA-03, TRA-04, TRA-06, TRA-08, TRA-13, TRA-13SCA, TRA-15, TRA-19, TRA-34, TRA-X, TRA-Y and three PCB-contaminated soil sites located by TRA-619, TRA-626, and TRA-653. The areas are assessed for the presence and condition of warning signs, the general condition of the site, and the effectiveness of controls, such as access restrictions at radiologically contaminated sites.

The WAG 2 CERCLA sites are recorded in the Comprehensive Facility and Land Use Plan (CFLUP), available at <http://cflup.inel.gov>. The CFLUP records are reviewed and updated as part of the annual assessment.

The groundwater contamination site at TRA does not require institutional controls assessment, other than verifying that the CFLUP correctly lists the drilling and land-use controls. Groundwater monitoring is performed and reported under a separate program.

2.2 Results of the FY 2004 Assessments

The WAG 2 institutional control assessment was performed on April 4, 2004. The assessment team included Richard P. Wells, the WAG 2 task lead, and D. Renee Fitch, a representative of Long-Term Stewardship, who performed the WAG 2 inspections in 2003. Refer to Table 2-1 for a listing of the WAG 2 CERCLA sites, including comments. Log sheets of the assessment are stored in the EDMS project files.

Table 2-1. Institutional control sites inspection at WAG 2.

Site	Signs	Comments	CFLUP Review	Actions Needed
TRA-15	Good condition	None	No change	None
TRA-19	Good condition	None	No change	None
TRA-08	Good condition	None	No change	None
TRA-13	Good condition	None	No change	None
TRA-13SCA	Good condition	None	No change	None
TRA-03	Good condition	None	No change	None
TRA-06	Good condition	None	No change	None
TRA-04	Good condition	None	No change	None
TRA-34	Good condition	None	No change	None
TRA-619	Good condition	None	No change	None
TRA-626	Good condition	None	No change	None
TRA-653	Good condition	None	No change	None
TRA-X	Good condition	None	No change	None
TRA-Y	Good condition	None	No change	None
TRA-GW	Groundwater, no site to visit, no signs posted.		No change	None

The CERCLA module of the CFLUP was reviewed and updated during the 2004 assessment, in accordance with *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a). The CERCLA module of the CFLUP is available electronically at <http://cflup.inel.gov>.

The FY 2004 assessment at WAG 2 of institutionally controlled areas determined that no negative conditions exist requiring maintenance or repairs. The institutional controls are operational and protective of human health and the environment. Prior to the 2004 assessment, new IC signs were installed at the WAG 2 IC sites. The new signs conform to the standard color and format used across the INEEL Site. The IC records in the CFLUP were reviewed and were found to be up to date.

It is recommended that new photographs be obtained during a future assessment cycle and photographs in the CFLUP be replaced if the appearance of the site has changed.

3. WAG 3 INTEC

The Idaho Nuclear Technology and Engineering Center (INTEC) (formerly the Idaho Chemical Processing Plant) began receiving, storing, and reprocessing nuclear materials in 1953. The nuclear materials included irradiated nuclear fuel from test, defense, and research reactors in the United States and other countries. Between 1954 and 1989, the INEEL Site received defense-related waste for storage. The INTEC also reclaimed highly enriched uranium by reprocessing spent nuclear fuels. However, the end of the Cold War and changes in public attitudes toward nuclear power reduced the demand for the highly enriched uranium. So, in 1992, the DOE announced that the reprocessing portion of the plant's mission would be phased out.

Currently, the INTEC mission includes receiving and temporarily storing spent nuclear fuel and other radioactive wastes for future disposition, managing waste, and performing remedial actions. The INEEL CERCLA Disposal Facility, located near INTEC, will eventually provide 510,000 cubic yards of land disposal capacity for management of CERCLA waste from the INEEL.

3.1 Methods of Assessment

The INTEC is designated as WAG 3. Known contaminant releases at WAG 3 are the result of spent nuclear fuel reprocessing; storage, research, and ancillary activities; and releases associated with the INTEC tank farm. The WAG 3 release sites have been categorized into seven groups according to shared characteristics or common contaminant sources. Additional sites are classified as “No Action” and “No Further Action.” Institutional controls are a part of the remedy for each of the seven groups and for the “No Further Action” sites.

The seven groups consist of the following:

Group 1—Tank Farm Soils: these sites, located in the vicinity of the tank farm, consist of soil contamination that resulted from spills and pipeline leaks of radioactive liquids from plant liquid transfer operations. No evidence has been found to indicate that any of the tanks in the tank farm have leaked. Contamination resulting from transfer lines or valve boxes in the tank farm area currently account for about 95% of the known contaminant inventory, in total curies of radioactive material, at INTEC. The 1999 Record of Decision for Operable Unit (OU) 3-13 (DOE-ID 1999) consolidated Group 1 sites (CPP-16, CPP-20, CPP-24, CPP-25, CPP-26, CPP-28, CPP-30, CPP-31, CPP-32, and CPP-79) and sites adjacent to the CPP-604 Rare Gas Plant/Waste Evaporator building (CPP-15, CPP-27, CPP-33, and CPP-58) into site CPP-96. Site CPP-96 includes these previously identified tank farm soils sites and the intervening interstitial soils within the site CPP-96 boundary. IC signs are in place on CPP-96, which encircles the majority of the Group 1 sites, and on CPP-15 and CPP-58. These two sites are geographically separate and require separate warning signs, although they are still considered part of CPP-96. The 1999 Record of Decision for OU 3-13 determined that a separate remedial investigation/feasibility study, proposed plan, and record of decision will be prepared for the tank farm soils under OU 3-14.

Group 2—Soils Under Buildings and Structures: these sites consist of soil contamination that resulted from past hazardous or radioactive liquid spills, leaks, or plant operations. These sites are designated as CPP-02, CPP-41, CPP-60, CPP-68, CPP-80, CPP-85, CPP-86, CPP-87, and CPP-89.

Group 3—Other Surface Soils: these sites consist of soil contamination that resulted from inadvertent spills and leaks of radioactive waste, decontamination solutions, spent fuel storage water, and other plant-generated wastewaters and from storage of radionuclide-contaminated equipment. The Group 3 sites are designated as CPP-01, CPP-03, CPP-04, CPP-05, CPP-08, CPP-09, CPP-10, CPP-11, CPP-13, CPP-14, CPP-19, CPP-34, CPP-35, CPP-36, CPP-37a, CPP-37b, CPP-37c, CPP-44, CPP-48, CPP-55, , CPP-67, CPP-91, CPP-92, CPP-93, CPP-97, CPP-98, and CPP-99. Remediation of specific Group 3 sites is being initiated in 2004.

Group 4—Perched Water, site CPP-83, occurs at depths ranging from 100 to 420 feet in the basalt and the sedimentary interbeds beneath INTEC. The perched water poses no direct human health threat but does pose a threat as a contaminant transport pathway to the Snake River Plain Aquifer. No visible warning signs are in place at CPP-83. Wells associated with CPP-83 are assessed annually to verify the well is locked and properly identified. In future, only the Group 4 wells that are part of the monitoring program (DOE-ID 2004c) will be included in the annual IC assessment.

Group 5—The contaminated water in the Snake River Plain Aquifer below INTEC lies about 540 feet beneath the site. The source of contamination in the groundwater originates primarily from the injection well, CPP-23. Wells associated with Group 5 groundwater monitoring are assessed annually to verify the well is locked and properly identified. In future, only the Group 5 wells that are part of the monitoring program (DOE-ID 2003) will be included in the annual IC assessment.

Group 6—Buried Gas Cylinders, sites CPP-84 and CPP-94, consist of cylinders that originated from INTEC and were discarded by burial in trenches. CPP-94 has been remediated and remediation of CPP-84 is planned for completion in 2004.

Group 7—The SFE-20 Hot Waste Tank System, site CPP-69, consists of a concrete vault containing an abandoned radioactive liquid waste storage tank. The tank contains 400 gallons of liquid and about 55 gallons of sludge. The major threat posed by the SFE-20 Hot Waste Tank System is a potential release to the underlying soils and subsequent leaching and transport of soil contaminants to the perched water or the Snake River Plain Aquifer.

“No Action” and “No Further Action” sites include 40 sites that either have acceptable risk levels under a current residential exposure scenario or that may be adversely impacted by continued operations and therefore require review in five years. These sites are CPP-06, CPP-07, CPP-12, CPP-17, CPP-18, CPP-21, CPP-22, CPP-29, CPP-39, CPP-40, CPP-41b, CPP-42, CPP-43, CPP-45, CPP-46, CPP-47, CPP-49, CPP-50, CPP-51, CPP-52, CPP-53, CPP-54, CPP-56, CPP-57, CPP-59, CPP-61, CPP-62, CPP-63, CPP-64, CPP-70, CPP-71, CPP-72, CPP-73, CPP-74, CPP-75, CPP-76, CPP-77, CPP-78, CPP-88, CPP-90, and CPP-95. Warning signs are in place at CPP-06, CPP-17, CPP-22, and CPP-90.

The WAG 3 CERCLA sites are recorded in the Comprehensive Facility and Land Use Plan (CFLUP), available at <http://cflup.inel.gov>. The CFLUP records are reviewed and updated, if needed, as part of the annual assessment.

3.2 Results of the FY 2004 Assessments

The WAG 3 institutional control assessment was performed on April 13, 2004. The assessment team included Wendell L. Jolley, the Long-Term Stewardship task lead, and D. Renee Fitch, a representative of Long-Term Stewardship, who performed the WAG 3 inspections in 2003. WAG 3 wells were inspected by D. Renee Fitch on May 20 and May 25, 2004. Log sheets of the assessment are stored in the EDMS project files. Tables 3-1 to 3-7 present the results of the 2004 assessment.

Table 3-1. Institutional control sites inspection at WAG 3, Group 1 Tank Farm Soils.

Site	Signs	Comments	CFLUP Review	Actions Needed
CPP-58	Good condition	None	No change	None
CPP-15	Good condition	None	No change	None
CPP-96	Good condition	None	No change	None

Table 3-2. Institutional control sites inspection at WAG 3, Group 2 Soil Under Buildings.

Site	Signs	Comments	CFLUP Review	Actions Needed
CPP-02	Good condition	None	No change	None
CPP-41	Good condition	None	No change	None
CPP-60	Good condition	None	No change	None
CPP-68	Good condition	None	No change	None
CPP-80	Good condition	None	No change	None
CPP-85	Good condition	None	No change	None
CPP-86	Good condition	None	No change	None
CPP-87	Good condition	None	No change	None
CPP-89	Good condition	None	No change	None

Table 3-3. Institutional control sites inspection at WAG 3, Group 3 Other Surface Soils.

Site	Signs	Comments	CFLUP Review	Actions Needed
CPP-01	Good condition	None	No change	None
CPP-03	Good condition	None	No change	None
CPP-04	Good condition	None	No change	None
CPP-05	Good condition	None	No change	None
CPP-08	Good condition	None	No change	None
CPP-09	Good condition	None	No change	None
CPP-10	Good condition	None	No change	None
CPP-11	Good condition	None	No change	None
CPP-13	Good condition	None	No change	None
CPP-14	Good condition	None	No change	None
CPP-19	Good condition	None	No change	None
CPP-34	Good condition	None	No change	None
CPP-35	Good condition	None	No change	None
CPP-36	Good condition	None	No change	None
CPP-37a	Good condition	None	No change	None
CPP-37b	Good condition	None	No change	None
CPP-37c	Good condition	None	No change	None
CPP-44	Good condition	None	No change	None
CPP-48	Good condition	None	No change	None

Table 3-3. (continued).

Site	Signs	Comments	CFLUP Review	Actions Needed
CPP-55	Good condition	None	No change	None
CPP-67	Good condition	None	No change	None
CPP-91	Good condition	None	No change	None
CPP-92	Good condition	None	No change	None
CPP-93	Good condition	None	No change	None
CPP-97	Good condition	None	No change	None
CPP-98	Good condition	None	No change	None
CPP-99	Good condition	None	No change	None

Table 3-4. Institutional control sites inspection at WAG 3, Group 4 Perched Water Wells.

Well Number	Label	Locked		Well Number	Label	Locked
CPP-33-1	Behind fence, did visual			MW-8	Yes	Yes
CPP-33-2	Yes	Yes		MW-9	Work zone, could not access	
CPP-33-3	Yes	Yes		MW-10	Yes	Yes
CPP-37-4	Yes	Yes		MW-11	Yes	Yes
CPP-55-06	Yes	Yes		MW-12	Yes	Yes
PW-1	Yes	Yes		MW-13	Yes	Yes
PW-2	Yes	Yes		MW-14	Yes	Yes
PW-3	Yes	Yes		MW-15	Yes	Yes
PW-4	Yes	Yes		MW-16	Yes	Yes
PW-5	Could not access, middle of perc ponds			MW-17	Yes	Yes
PW-6	Inside ICDF, could not access, did visual			MW-18	Yes	Yes
MW-1	Yes	Yes		MW-20	Yes	Yes
MW-2	Yes	Yes		USGS-50	Yes	Yes
MW-3	Yes	Yes		CPP-33-4-1	Yes	Yes
MW-4	Yes	Yes		CPP-33-4-2	Yes	Yes
MW-5	Yes	Yes		1236-ICPP-S-132	Yes	Yes
MW-6	Yes	Yes		1385-ICPP-SCI-P-216	Yes	Yes
MW-7	Yes	Yes		1386-ICPP-SCI-P-217	Yes	Yes
1387-ICPP-SCI-P-218	Yes	Yes		1397-ICPP-SCI-P-228	Yes	Yes
1388-ICPP-SCI-P-219	Yes	Yes		1398-ICPP-SCI-P-229	Yes	Yes

Table 3-4. (continued).

Well Number	Label	Locked		Well Number	Label	Locked
1389-ICPP-SCI-P-220	Yes	Yes		1399-ICPP-SCI-P-230	Yes	Yes
1390-ICPP-SCI-P-221	Yes	Yes		1400-ICPP-SCI-P-247	Yes	Yes
1391-ICPP-SCI-P-222	Yes	Yes		1401-ICPP-SCI-P-248	Yes	Yes
1392-ICPP-SCI-P-223	Yes	Yes		1402-ICPP-SCI-P-249	Yes	Yes
1393-ICPP-SCI-P-224	Yes	Yes		1403-ICPP-SCI-P-250	Yes	Yes
1394-ICPP-SCI-P-225	Yes	Yes		1404-ICPP-SCI-P-251	Yes	Yes
1395-ICPP-SCI-P-226	Yes	Yes		1405-ICPP-SCI-P-252	Yes	Yes
1396-ICPP-SCI-P-227	Yes	Yes		1397-ICPP-SCI-P-228	Yes	Yes

Table 3-5. Institutional control sites inspection at WAG 3, Group 5 Snake River Plain Aquifer.

Well Number	Label	Locked		Well Number	Label	Locked
MW-18	Yes	Yes		USGS-77	Yes	Yes
USGS-34	Yes	Yes		USGS-82	Yes	Yes
USGS-35	Yes	Yes		USGS-84	Yes	Yes
USGS-36	Yes	Yes		USGS-85	Yes	Yes
USGS-37	Yes	Yes		USGS-111	Yes	Yes
USGS-38	Yes	Yes		USGS-112	Yes	Yes
USGS-39	Yes	Yes		USGS-113	Yes	Yes
USGS-40	Could not access, did visual			USGS-114		Yes
USGS-41	Could not access, did visual			USGS-115		Yes
USGS-42	Could not access, did visual			USGS-116		Yes
USGS-43	Yes	Yes		USGS-121	Yes	Yes
USGS-44	Yes	Yes		USGS-122	Yes	Yes
USGS-45	Yes	Yes		USGS-123	Could not access (ICDF), did visual	
USGS-46	Yes	Yes		USGS-128	Yes	Yes
USGS-47	Well under asphalt, not visible			LF2-08	Yes	Yes
USGS-48	Yes	Yes		LF2-09	Yes	Yes
USGS-49	Could not access, did visual			LF2-10	Yes	Yes

Table 3-5. (continued).

Well Number	Label	Locked		Well Number	Label	Locked
USGS-51	Inside perc pond area, could not access			LF2-11	Yes	Yes
USGS-52	Could not access, did visual			LF2-12	Yes	Yes
USGS-57	Construction zone-could not visit well site.			LF3-08	Yes	Yes
USGS-59	Yes	Yes		LF3-09	Yes	Yes
USGS-67	Yes	Yes		LF3-10	Yes	Yes
MW-18	Yes	Yes		USGS-77	Yes	Yes

Table 3-6. Institutional control sites inspection at WAG 3, Group 6 Buried Gas Cylinders.

Site	Signs	Comments	CFLUP Review	Actions Needed
CPP-94	Good condition	None	No change	None
CPP-84	Good condition	None	No change	None

Note: CPP-94 has been remediated. Remediation of CPP-84 is planned to be completed in 2004.

Table 3-7. Institutional control sites inspection at WAG 3, Group 7 SFE-20 Hot Waste Tank System.

Site	Signs	Comments	CFLUP Review	Actions Needed
CPP-69	Good condition	None	No change	None

Institutional controls at INTEC were found to be in correct order during the 2004 assessment. Corner markers, noted on the log sheets at boundary monuments, were in place. One sign at CPP-10 was down because the fence post had been damaged during winter snow removal activities. This is a small site and the second sign is clearly visible. Corner brass markers are in place. Therefore, the sign was removed rather than being placed again.

Wells at INTEC were found to be properly locked and labeled throughout. Several wells could not be visited due to placement in restricted/controlled areas, such as the percolation pond, the ICDF facility, or in the security perimeter zone. In the future, only the Group 4 and Group 5 wells that are part of the monitoring program will be included in the annual IC assessment.

CERCLA signage at INTEC has been in place over several years. It is recommended that new signs be placed so that all CERCLA signs at INTEC will conform with INEEL standards. It is further recommended that the photographs in the CFLUP be replaced to keep the CFLUP current.

The CERCLA module of the CFLUP for WAG 3 was reviewed and updated during the 2004 assessment, in accordance with *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a). Based on agency approval of an Explanation of Significant Difference to the OU 3-13 ROD (DOE-ID 2004d) to have leaked polychlorinated biphenyls (PCBs) contaminated fluid. The site has been cleaned but one sample shows that soil contaminated with PCB may remain at depth. CPP-61 is therefore a “no further action” site and will be controlled by restricting activities and lease transfers. No warning signs will be posted at CPP-61. The CERCLA module of the CFLUP is available electronically at <http://cflup.inel.gov>.

The recording and reporting of soil disturbances at INTEC is handled with Notice of Soil Disturbances (NSDs). During FY 2003, nine NSDs were submitted to the agencies for approval. The status of these activities is listed in Table 3-8.

Table 3-8. NSDs during FY 2003.

NSD Number/ Approval Date	Title	CERCLA Soils ^a Encountered?	Comments
NOD-03-01, 12/19/02	CPP-603 HVAC Upgrade	Yes	Soils exceeding the WAG 3 remediation goal (RG) were encountered, boxed and managed per the NOD as CERCLA waste. 150-cubic yards of soil disturbed.
NOD-03-02, 1/15/03	NSF Dry Storage Pad	No	No soils exceeding the WAG 3 RG were encountered. 100-cubic yards of soil disturbed.
NOD-03-03r3, 3/3/03	Repair of Steam Line Leak in CPP-58	Yes	Soils returned to excavation per the NOD since site is scheduled for future remediation. 25-cubic yards of soil disturbed.
NOD-03-04, 3/4/03	EUSU (utilities) Upgrade	No	No soils exceeding the WAG 3 RG were encountered. 20-cubic yards of soil disturbed.
NOD-03-05, 3/25/03	Craft Relocation to CPP-663	No	No soils exceeding the WAG 3 RG were encountered. 5-cubic yards of soil disturbed.
NDS-03-06, 5/5/03	CPP-1637 Upgrade	N/A	Work never performed; no soil disturbed.
NSD-03-06, 8/1/03	Sewer Line Upgrade	No	Work currently in progress.
NSD-03-08, 5-1-03	Potable Water Line Repair (Emergency)	No	No soils exceeding the WAG 3 RG were encountered. 15-cubic yards of soil disturbed.
NSD-03-09, 8/13/03	APS Ductwork Repair	N/A	Work held for future construction.
NOD-02-03, 8/8/02	Cathodic Protection Upgrade	No	Work is ongoing.
a. CERCLA soil is soil in which contamination has been detected above the WAG 3 remediation goal.			

4. WAG 4 CFA

The Central Facilities Area (CFA) has been used since 1949 to house many of the support services for all of the operations at the INEEL, e.g., laboratories, security operations, fire protection, a medical facility, communication systems, warehouses, a cafeteria, vehicle and equipment pools, and the bus system. The CFA is designated as WAG 4. The boundary of WAG 4 is loosely defined as the Central Facilities Area but has no enclosing fence. Cleanup actions at WAG 4 have included the removal of mercury- and asbestos-contaminated soils, the removal of laboratory french drains, and the removal and disposal of heavy metal- and petroleum-contaminated soils. Native soil covers were also placed on the Central Facilities Area Landfills I, II, and III during the summer of 1996.

4.1 Methods of Assessment

Five institutionally controlled areas require annual inspection at CFA, in accordance with the *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a). They are CFA-01, CFA-02, CFA-03 (the Landfills), CFA-07 (the french drain) and CFA-08 (the Sewage Plant drain field). The areas are assessed for the presence and condition of warning signs, the general condition of the site, and the effectiveness of controls, such as access restrictions at radiologically contaminated sites.

The WAG 4 CERCLA sites are recorded in the Comprehensive Facility and Land Use Plan (CFLUP), available at <http://cflup.inel.gov>. The CFLUP records are reviewed and updated, if needed, as part of the annual assessment.

4.2 Results of the FY 2004 Assessments

The WAG 4 institutional control assessment was performed on April 8, 2004. The assessment team included Richard P. Wells, the WAG 4 task lead, and D. Renee Fitch, a representative of Long-Term Stewardship, who performed the WAG 4 inspections in 2003. Refer to Table 4-1 for a listing of the WAG 4 CERCLA sites, including comments. Institutional controls at WAG 4 were found to be in proper order and correct. Log sheets of the assessment are stored in the EDMS project files.

The CERCLA module of the CFLUP was reviewed during the 2004 assessment, in accordance with *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a) and found to be correct. The CERCLA module of the CFLUP is available electronically at <http://cflup.inel.gov>.

Table 4-1. Institutional control sites inspection at WAG 4.

Site	Signs	Comments	CFLUP Review	Actions Needed
CFA-01	Good condition	None	No change	None
CFA-02	Good condition	None	No change	None
CFA-03	Good condition	None	No change	None
CFA-07	Good condition	None	No change	None
CFA-08	Good condition	None	No change	None

5. WAG 5 ARA/PBF

WAG 5 consists of the Power Burst Facility (PBF) and the Auxiliary Reactor Area (ARA). PBF and ARA are located fairly close together and were both experimental reactor facilities built in the 1950s.

Decontamination and dismantlement of ARA began in 1990 and was completed in 1999. The ARA-I facility was built in 1957 to support the Stationary Low-Power Reactor No. 1 (SL-1). The SL-1 reactor was built at ARA-II in 1957 and operated intermittently from 1958 until it was destroyed by a nuclear accident in January 1961. At that time, ARA-I became the staging area for the emergency response to the 1961 SL-1 reactor accident and cleanup. Construction of the ARA-III facility was completed in about 1959 to house the Army Gas-Cooled Reactor Experiment research reactor. That reactor was deactivated in 1961, and the facility was modified in 1963 to support the ARA-IV reactor until the Army Reactor Program was phased out in 1965. The ARA-IV facility was built to accommodate the Mobile Low-Power Reactor I and was active from 1957 until 1964. The Nuclear Effect Reactor at ARA-IV operated from 1967 to 1970. Decontamination and dismantlement were performed in 1984 and 1985.

At PBF, the Special Power Excursion Reactor Tests I (SPERT-I) reactor was operated from 1955 to 1964. It was decommissioned in 1964 and demolished in 1985. The Power Burst Reactor was built in 1972 and operated until 1985. The SPERT-II reactor was operated from 1960 to 1964. The SPERT-III reactor was decommissioned and decontaminated in 1980. The SPERT-IV reactor was operational from 1961 to 1970. The various reactor areas have housed second missions, including reduction of low-level radioactive waste, development of waste treatments, storage of waste, incineration of waste, and laboratory operations.

5.1 Methods of Assessment

Seventeen institutionally controlled areas require annual inspection at ARA/PBF, in accordance with the *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a). The areas are assessed for the presence and condition of warning signs, the general condition of the site, and the effectiveness of controls, such as access restrictions at radiologically contaminated sites.

The WAG 5 CERCLA sites are recorded in the Comprehensive Facility and Land Use Plan (CFLUP), available at <http://cflup.inel.gov>. The CFLUP records are reviewed and updated as part of the annual assessment.

5.2 Results of the FY 2004 Assessments

The WAG 5 institutional control assessment was performed on April 4, 2004. The assessment team included Richard P. Wells, the WAG 5 task lead who performed the WAG 5 inspections in 2003, and D. Renee Fitch, a representative of Long-Term Stewardship. Refer to Table 5-1 for a listing of the WAG 5 CERCLA sites, including comments. Log sheets of the assessment are stored in the EDMS project files. The CERCLA module of the CFLUP was reviewed and updated during the 2004 assessment, in accordance with *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a). The CERCLA module of the CFLUP is available electronically at <http://cflup.inel.gov>. The records in the CFLUP were found to be in good order for WAG 5 in 2004.

All institutionally controlled areas at WAG 5 were found to be in good condition with the IC operating as planned. All required fencing and monuments were in place during the assessment. Subsequent to the inspection visit, remediation activities have altered the conditions at WAG 5. The changes will be noted in the next annual IC assessment. The information in the CFLUP is current. It is recommended that in the future new photographs be obtained for display in the CFLUP.

Table 5-1. Institutional control sites inspection at WAG 5.

Site	Signs	Comments	CFLUP Review	Actions Needed
ARA-01	Good condition	None	No change	None
ARA-02	Good condition	None	No change	None
ARA-03	Good condition	None	No change	None
ARA-06	Good condition	None	No change	None
ARA-07	Good condition	None	No change	None
ARA-08	Good condition	None	No change	None
ARA-12	Good condition	None	No change	None
ARA-16	Good condition	None	No change	None
ARA-23	Good condition	None	No change	None
ARA-24	Good condition	None	No change	None

Table 5-1. (continued).

Site	Signs	Comments	CFLUP Review	Actions Needed
ARA-25	Good condition	None	No change	None
PBF-10	Good condition	None	No change	None
PBF-12	Good condition	None	No change	None
PBF-13	Good condition	None	No change	None
PBF-21	Good condition	None	No change	None
PBF-22	Good condition	None	No change	None
PBF-26	Good condition	None	No change	None

6. WAG 6 BORAX

WAG 6 consists of the Experimental Breeder Reactor I, now a historic landmark, and the nearby Boiling Water Reactor Experiment Area (BORAX), which includes the sites of five separate experimental reactors that are no longer used and are being, or have been, decontaminated and decommissioned. The Boiling Water Reactor Experiment-I burial ground was covered with a cap consisting of layers of soil and rock as part of a cleanup action during the summer of 1996. The Boiling Water Reactor Experiment-I, a small reactor for testing boiling water reactor technology, was intentionally destroyed for research purposes after the mission of the reactor had been completed in 1954. The destruction of the reactor resulted in the contamination of about two acres of the surrounding terrain. Much of the reactor debris was buried in place, and the area was covered with about six inches of gravel to reduce radioactivity levels. New fence boundaries provide protection of the barrier, which should not be disturbed, and prevent exposure to the waste buried below. Access to the site is restricted to authorized inspections only.

6.1 Methods of Assessment

Five institutionally controlled areas require annual inspection at WAG 6, in accordance with the *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a). The areas are BORAX-01, BORAX-02, BORAX-08, BORAX-09 and EBR-08. The CFLUP records for these sites are reviewed as part of the annual assessment.

6.2 Results of the FY 2004 Assessments

The WAG 6 institutional control sites were visited on June 8, 2004. New signs were placed at all sites. The assessment team included Richard P. Wells, the WAG 10 task lead, Mike Crane, the INEEL photographer, and D. Renee Fitch, a representative of Long-Term Stewardship. Refer to Table 6-1 for results of the WAG 6 CERCLA site assessment. Log sheets of the assessment are stored in the EDMS project files.

Table 6-1. Institutional control sites inspection at WAG 6.

Site	Signs	Comments	CFLUP Review	Actions Needed
BORAX-01	New sign placed	None	New Photo	None
BORAX-02	New sign placed	None	New Photo	None
BORAX-08	New sign placed	None	New Photo	None
BORAX-09	New sign placed	None	New Photo	None
EBR-08	New sign placed	None	New Photo	None

WAG 6 institutional controls were assessed and found to be in good order. The WAG 6 CERCLA sites are recorded in the Comprehensive Facility and Land Use Plan (CFLUP), available at <http://cflup.inel.gov>. The CFLUP records are reviewed and updated as part of the annual assessment. New photographs of the IC sites were placed in the CFLUP.

7. WAG 7 RWMC

The Radioactive Waste Management Complex (RWMC), designated as WAG 7, is located in the southwestern quadrant of the INEEL and encompasses a total of 177 acres. The RWMC is divided into three separate areas by function: the Subsurface Disposal Area, the Transuranic Storage Area, and the administration and operations area. The Subsurface Disposal Area, originally established in 1952, covers an area of 97 acres, including the dike that surrounds the landfill. The Subsurface Disposal Area comprises of a number of burial pits, trenches, and soil vaults used for the disposal of solid radioactive waste. The Transuranic Storage Area was added to the RWMC in 1970. Located adjacent to the east side of the Subsurface Disposal Area, the Transuranic Storage Area encompasses 58 acres and is used to store retrievable transuranic waste and ship it to the Waste Isolation Pilot Plant. The 22-acre administration and operations area at the RWMC includes administrative offices, maintenance buildings, equipment storage, and miscellaneous support facilities.

Currently, the Subsurface Disposal Area contains three OUs where remediation is ongoing in accordance with finalized CERCLA records of decision: OU 7-08 (Organic Contamination in the Vadose Zone), OU 7-12 (Pad A), and OU 7-10 (Pit 9). Rather than managing the institutional controls separately at these three OUs, they are being managed as one area called the [SDA CERCLA site](#). The pending comprehensive OU 7-13/14 record of decision will further define CERCLA sites and future remedial actions at this WAG. There are no current CERCLA institutional control measures implemented for the Transuranic Storage Area or the administration and operations areas, because the areas are under active operational facility control.

The 2004 assessment was performed on May 4, 2004 by Brent Burton, the Project Environmental Lead for WAG 7, and D. Renee Fitch, a representative of Long-Term Stewardship. Warning signs were observed around the perimeter of the SDA. The records in the CFLUP were reviewed and found to be up-to-date. No deficiencies or recommendations were noted.

8. WAG 8 NRF

The Naval Reactors Facility is designated as WAG 8. Sites being investigated at this facility include landfills, old spills, waste water disposal systems (e.g., ponds, ditches, basins, drains, and drain fields) and storage areas. Possible contaminants include metals (barium, chromium, copper, lead, mercury, nickel, silver, and zinc), organics (hydrocarbons, paints, pesticides, PCBs, and solvents), radionuclides, and petroleum products.

WAG 8 cleanup actions have included removing contaminated soil from an acid spill area, removing and solidifying sludge from a french drain, and constructing a cap over three municipal-type landfills and implementing a 30-year monitoring program.

The Naval Reactors Facility is a DOE facility, operated by Westinghouse Electric Corporation for the Naval Nuclear Propulsion Program. Institutional control and annual inspections are not part of the scope in *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a).

9. WAG 9 ANL-W

WAG 9 is composed of Argonne National Laboratory-West (ANL-W) facilities. Sites being investigated there include tanks and wastewater handling and disposal systems such as ditches, ponds, pits, and drains. Contaminants at these sites include metals (beryllium and chromium) and radionuclides (such as neptunium-237, cesium-137, strontium-90, and americium-241).

Cleanup actions at WAG 9 have consisted of the removal of radioactively contaminated sludge from the Experimental Breeder Reactor II Leach Pit and the leach pit walls, ceiling, and piping; the removal of radioactive wastes (i.e., sludges, water, and piping) from the Industrial/Sanitary Waste Lift Station; and the removal of piping from a lift station (sump) that leads to the leach pit.

Argonne National Laboratory-West is operated by the University of Chicago under contract to the DOE. Institutional control and annual inspections are not part of the scope in *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a).

10. WAG 10 SITEWIDE CONCERNS

WAG 10 encompasses the INEEL Site area that falls outside of the other WAGs. As necessary, WAG 10 also encompasses areas beyond the INEEL boundaries that have been or may have been impacted by INEEL activities. Consequently, WAG 10 comprises a large area, much of which is assumed to be uncontaminated. On a sitewide basis, ground water concerns in the Snake River Plain Aquifer fall within WAG 10 and are managed separately from institutional controls.

WAG 10 includes miscellaneous surface sites and liquid disposal areas throughout the INEEL Site that are not included in other waste area groups. WAG 10 also includes areas where explosive ordnance items are present due to activities that occurred from 1942 through 1950, when portions of the present-day INEEL Site made up the Arco Naval Proving Ground. Projectiles (explosive and inert), explosive materials, and ordnance explosive wastes litter many parts of the INEEL Site even today. These materials are the result of test firing of naval guns, mass detonation tests, aerial bombing practice, and compatibility testing of explosive materials carried out by the U.S. Navy during the period when INEEL Site land was used as a proving ground.

Radioactively contaminated soil, unexploded ordnance, and explosive residues have been removed from several areas of the INEEL Site. In addition, chemically-contaminated soil and explosive chunks of TNT and RDX have been disposed of in several cleanup actions.

10.1 Methods of Assessment

Twenty-seven institutionally controlled areas received warning signs at WAG 10, in accordance with the *INEEL Sitewide Institutional Controls Plan* (DOE-ID 2004a). The areas are assessed for condition of warning signs, the general condition of the site, and the effectiveness of controls.

The WAG 10 CERCLA sites are recorded in the Comprehensive Facility and Land Use Plan (CFLUP), available at <http://cflup.inel.gov>. The CFLUP records are reviewed and updated as part of the annual assessment.

10.2 Results of the FY 2004 Assessments

The WAG 10 institutional control assessment was performed on June 8, 2004. New signs were placed at all sites (see Table 10-1). The assessment team included Richard P. Wells, the WAG 10 task lead, Mike Crane, the INEEL photographer, and D. Renee Fitch, a representative of Long-Term Stewardship. Log sheets of the assessment are stored in the EDMS project files.

Table 10-1. Institutional control sites inspection at WAG 10.

Site	Signs	Comments	CFLUP Review	Actions Needed
OMRE-01	New sign placed	None	New Photo	None
ORD-01	New sign placed	None	New Photo	None
ORD-03	New sign placed	None	New Photo	None
ORD-04	New sign placed	None	New Photo	None
ORD-05	New sign placed	None	New Photo	None
ORD-06	New sign placed	None	New Photo	None
ORD-07	New sign placed	None	New Photo	None
ORD-08	New signs (2) placed	None	New Photo	None
ORD-09	New sign placed	None	New Photo	None
ORD-10	New sign placed	None	New Photo	None
ORD-11	New sign placed	None	New Photo	None
ORD-12	New sign placed	None	New Photo	None
ORD-13	New sign placed	None	New Photo	None
ORD-14	New sign placed	None	New Photo	None
ORD-15	New sign placed	None	New Photo	None
ORD-16	New sign placed	None	New Photo	None
ORD-17	New sign placed	None	New Photo	None
ORD-18	New sign placed	None	New Photo	None
ORD-19	New sign placed	None	New Photo	None
ORD-20	New sign placed	None	New Photo	None
ORD-21	New sign placed	None	New Photo	None
ORD-22	New sign placed	None	New Photo	None
ORD-24	New sign placed	None	New Photo	None
ORD-25	New sign placed	None	New Photo	None
ORD-26	New sign placed	None	New Photo	None
ORD-27	New sign placed	None	New Photo	None
ORD-28	New sign placed	None	New Photo	None
STF-02	New sign placed	None	New Photo	None

WAG 10 institutional controls were assessed and found to be in good order. The WAG 10 CERCLA sites recorded in the Comprehensive Facility and Land Use Plan (CFLUP), available at <http://cflup.inel.gov>, were revised to show each site separately and now include photographs taken during the 2004 assessment. No recommendation for further changes to WAG 10 institutional controls are made.

11. REFERENCES

- DOE-ID, 1991, *Federal Facility Agreement and Consent Order for the Idaho National Engineering Laboratory*, Administrative Record No. 1088-06-29-120, U.S. Department of Energy Idaho Operations Office; U.S. Environmental Protection Agency, Region 10; Idaho Department of Health and Welfare, December 4, 1991.
- DOE-ID, 1997, *Idaho National Engineering and Environmental Laboratory Comprehensive Facility and Land Use Plan*, DOE/ID-10154, U.S. Department of Energy Idaho Operations Office, December 1997. (Official Use Only) Unclassified version available at: <http://cflup.inel.gov>.
- DOE-ID, 1999, *Final Record of Decision for Idaho Nuclear Technology and Engineering Center, Operable Unit 3-13*, DOE/ID-10660, Rev. 0, U.S. Department of Energy Idaho Operations Office, October 1999.
- DOE-ID, 2003, *Long-Term Monitoring Plan for OU-3-13, Group 5, Snake River Plain Aquifer*, DOE/ID-10783, Revision 2, March 2003.
- DOE-ID, 2004a, *INEEL Sitewide Institutional Controls Plan*, DOE/ID-11042, Rev. 1, U.S. Department of Energy Idaho Operations Office, June 2004.
- DOE-ID, 2004b, *Record of Decision Amendment for the V-Tanks (TSF-09 and TSF-18) and Explanation of Significant Differences for the PM-2A Tanks (TSF-26) and TSF-06, Area 10, at Test Area North, Operable Unit 1-10*, DOE/ID-10682 Amendment, Revision 0, February 2004.
- DOE-ID, 2004c, *Long-Term Monitoring Plan for Operable Unit 3-13, Group 4 Perched Water*, DOE/ID-10746, Revision 1, February 2004.
- DOE-ID 2004d, *Explanation of Significant Differences for the Record of Decision for the Idaho Nuclear Technology and Engineering Center, Operable Unit 3-13*, DOE/ID-11109, Revision 0, January 2004.