

## **ATTACHMENT 2** SECURITY, INSPECTIONS, and MAINTENANCE

PLANS consisting of:

- Security Procedures and Equipment, Section B of the INTEC Post-Closure Permit for the Volume 21 Waste Calcine Facility and CPP-601/627/640,
- Preparedness and Prevention Waiver, Section C of the INTEC Post-Closure Permit for the Volume 21 Waste Calcine Facility and CPP-601/627/640,
- General and Specific Inspection Schedule, Section D of the INTEC Post-Closure Permit for the Volume 21 Waste Calcine Facility and CPP-601/627/640,
- Maintenance Activities, Section E of the INTEC Post-Closure Permit for the Volume 21 Waste Calcine Facility and CPP-601/627/640,
- Example of Inspection Forms of the INTEC Post-Closure Permit for the Volume 21 Waste Calcine Facility and CPP-601/627/640,
- Example of Sampling and Analysis Plan Tables of the INTEC Post-Closure Permit for the Volume 21 Waste Calcine Facility and CPP-601/627/640.

**HWMA/RCRA INTEC POST-CLOSURE PERMIT  
FOR THE  
IDAHO NATIONAL LABORATORY**

**Volume 21  
Waste Calcining Facility and  
CPP-601/627/640**

**Attachment 2  
Section B, Security Procedures and Equipment**

**Revision Date: August 25, 2011**

**B. SECURITY PROCEDURES AND EQUIPMENT  
IDAPA 58.01.05.012 and 008 [40 CFR §§ 270.14(b)(4) and  
264.14]**

**Security**

1            Specific security measures taken for INTEC include fencing, warning signs, keycard access  
2 or personnel sign-in, and building locks.

**Security Procedures and Equipment [IDAPA 58.01.05.008  
and 58.01.05.012; 40 CFR §§ 264.14 and 270.14(b)(4)]**

3            A security system, physical control procedures, and equipment control access to INTEC. A  
4 security force operates the security system.

5            The security force's operations are consistent with DOE-ID directives and orders on access  
6 control. The DOE operates a personnel security clearance program to ensure that employees who are  
7 required to have a clearance to perform their duties are evaluated and cleared consistently with DOE-  
8 ID security policies.

9            Fencing, guarded gates, and uniformed guards with communication devices are used at  
10 INTEC. There are internal communication devices, such as a telephone system in occupied buildings  
11 at INTEC. The same communication devices are used for communication outside of the plant. The  
12 INTEC also has a plant-wide voice paging system that is used to announce critical information  
13 regarding security and safety.

**24-Hour Surveillance System [IDAPA 58.01.05.008; 40 CFR §  
264.14(b)(1)]**

14           Security at INTEC is provided by trained security guards, who monitor the entry and egress  
15 of people and material from the INTEC facility. The main INTEC guard gate at the west side of  
16 INTEC is staffed with guards 24 hours a day, seven days a week. There are other gates into INTEC,  
17 and they are either locked or staffed with guards. The guards also perform other security functions  
18 within the plant premises, including patrolling the perimeter fence and areas throughout INTEC on a  
19 24-hour basis.

## **Barrier and Means to Control Entry [IDAPA 58.01.05.008; 40 CFR § 264.14(b)(2)(i)]**

1           The treatment, storage, or disposal facilities (TSDFs) at INTEC are enclosed within a fence.  
2 All gates into INTEC are either locked or manned with security guards.

### **Barrier**

3           The INTEC facility is located approximately 42 air miles west of the largest nearby  
4 population area, Idaho Falls, Idaho. The entire INTEC facility area is enclosed within a fence. There  
5 are gates in the perimeter fences, but only three guarded gates. These gates are identified with the  
6 Guard Post (building) where they are located. The Guard Posts are numbered P-501 (CPP-1686), P-  
7 507 (CPP-661), and P-521 (CPP-697). The other gates are locked but can be opened by patrols when  
8 requested.

### **Means to Control Entry [IDAPA 58.01.05.008; 40 CFR § 264.14 (b)(ii)]**

9           Employees, sub-contractors, or vendors that have completed required access training and  
10 have keycard access are not escorted in the general INTEC interior.

11           Individuals that have the required access training but do not have keycard access sign an  
12 "Employee Log" and are allowed into INTEC without being escorted.

13           Individuals that do not have the required access training and do not have keycard access are  
14 escorted and sign a "Visitors Log" to gain access to INTEC.

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IDAHO NATIONAL LABORATORY**

**Volume 21  
Waste Calcining Facility and  
CPP-601/627/640**

**Attachment 2  
Section C, Preparedness and Prevention Waiver**

**Revision Date: August 25, 2011**

**C. Preparedness and Prevention**  
**IDAPA 58.01.05.008 [40 CFR § 264 Subpart C]**

1           A waiver from these requirements, Preparedness and Prevention, has been approved by the  
2 DEQ based on the following:

- 3           • The WCF and CPP-601/627/640 were closed as landfills and are concrete monoliths
- 4           • The WCF and CPP-601/627/640 landfills are unoccupied and there is no movement of waste  
5 into or out of the units
- 6           • There is no safety equipment, alarms, communication devices, or fire fighting equipment  
7 associated with the WCF or the CPP-601/627/640 landfills
- 8           • The WCF and CPP-601/627/640 landfills have no need for adequate aisle space.

9           None of the requirements described in 40 CFR 264 Subpart C apply to the WCF or the CPP-  
10 601/627/640 landfill monoliths.

11           In addition, as described in Section B, Security Procedures and Equipment, access to the  
12 WCF and CPP-601/627/640 monoliths is controlled through physical barriers. These barriers prevent  
13 unauthorized personnel from contact with the WCF or CPP-601/627/640 monoliths.

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**Volume 21  
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**Attachment 2  
Section D, Inspection Schedule**

**Revision Date: August 25, 2011**

**D. GENERAL AND SPECIFIC INSPECTION SCHEDULE  
IDAPA 58.01.09.012 and 008 [40 CFR 270.14(b)(5) AND  
264.15(b)(1)]**

1           The WCF landfill cap and the CPP-601/627/640 earthen cover, storm water drainage system,  
2 security system, and groundwater monitoring system are inspected for malfunctions, deterioration,  
3 and discharges that may cause, or may lead to, releases of hazardous waste constituents to the  
4 environment or a threat to human health. No safety or emergency equipment is associated with the  
5 closed WCF and CPP-601/627/640 facilities. Areas subject to inspection under this permit include:

- 6       • WCF landfill cap
- 7       • CPP-601/627/640 earthen cover
- 8       • INTEC facility security system
- 9       • Groundwater monitoring system.

**D.1 The Integrity of the WCF Landfill Cap and CPP-601/627/640  
Earthen Cover**

10           The integrity of the WCF landfill cap and the CPP-601/627/640 earthen cover are inspected  
11 on a semi-annual basis. The inspections are documented on the RCRA WCF and CPP-601/627/640  
12 Post-Closure Monitoring forms. The forms are used to document the inspection and the findings of  
13 the following:

- 14       • Concrete cap (for cap surface erosion, cracks, spalling, subsidence, joint seal condition)
- 15       • Earthen cover (for surface pooling, subsidence, erosion, animal intrusion)
- 16       • Surface drainage (for runoff drainage maintained away from the cap)
- 17       • Brass benchmarks [integrity of brass survey caps ]

18           The inspection frequency may be modified based on information obtained from the  
19 monitoring.

## D.2 Security System for the INTEC Facility

1 Security items at the INTEC requiring inspection include:

- 2 • Signs and fences for integrity
- 3 • Gates and locks for integrity and operability
- 4 • Badge readers for integrity and operability

5 The frequency of inspection for security equipment varies and is based on the manufacturer's  
6 maintenance recommendations and equipment history. The inspection of security equipment is  
7 developed by Security Systems Maintenance and is specified by the specific building and/or device  
8 being inspected.

## 9 D.3 Groundwater Monitoring System

10 The need to inspect the condition of monitoring wells developed as a result of past data  
11 collection efforts, site construction work, and natural deterioration. Examples of possible problems at  
12 monitoring wells could include:

- 13 • Well identification
- 14 • Inoperable locks
- 15 • Cracked surface casing
- 16 • Damaged cement pads
- 17 • Compromised impingement protection

18 The frequency and location of well maintenance activities are subject to changing well  
19 conditions. As a general rule, the overall condition of each well will be visually inspected at each  
20 visit to the well. Formal inspection of the wells will be completed and documented on a semi-annual  
21 basis. As current wells age and future wells are drilled, various problems related to the physical  
22 integrity of the well may arise that need to be addressed. Some of these problems include borehole  
23 cleanout from formation slough, pump work (trip-in, trip-out, troubleshoot, and repair), pump  
24 corrosion, and e-line retrieval repairs are made in accordance to inspection findings.

**HWMA/RCRA INTEC POST CLOSURE PERMIT  
FOR THE  
IDAHO NATIONAL LABORATORY**

**Volume 21  
Waste Calcining Facility and  
CPP-601/627/640**

**Attachment 2  
Section E, Maintenance Activities**

**Revision Date: August 25, 2011**

## **E. Maintenance Activities**

### **IDAPA 58.01.05.008 [264.118(B)(2)] and IDAPA 58.01.05.009 [265.118(B)(2)]**

#### **E.1 Maintenance of Landfill Cap and Final Cover**

1           If, during the semi-annual cap inspections, deficiencies are noted, the following will be  
2 performed to maintain the integrity of the containment system:

- 3           •     Replace soil lost to erosion
- 4           •     Maintain drainage channels and culverts that direct surface run-on and runoff away  
5                 from the disposal area and prevent surface water from infiltrating the cover
- 6           •     Control rodents as necessary to counter infestations (e.g., filling of rodent burrows  
7                 and applying insecticide)
- 8           •     Remove and replace cracked areas with grout or an appropriate concrete patch  
9                 material, if cracks in the concrete greater than ½ inch (in width) are discovered.

#### **E.2 Monitoring Well Maintenance**

10           The need to inspect and repair the condition of monitoring wells was identified as a result  
11 of past data collection efforts, site construction work, and/or natural deterioration. Examples of  
12 possible problems at monitoring wells include inoperable locks, cracked surface casings, and  
13 damaged cement pads. As current wells age and future wells are drilled, various problems with  
14 regard to the physical integrity of the well may arise that need to be addressed. Some of these  
15 include borehole cleanout from formation slough, pump work (trip-in, trip-out, troubleshoot, and  
16 repair), pump corrosion, and e-line retrieval. Construction of new monitoring wells shall be  
17 performed in accordance with 40 CFR § 264.97(c).

18           Attempts to analyze field-collected data have also shown the importance of maintaining  
19 wells. For example, water-table map construction is complicated with elevation survey  
20 inconsistencies. This occurs when the surface construction of a given well is altered, rendering  
21 the measuring point elevation invalid.

1           The frequency and location of well maintenance activities are subject to changing well  
2 conditions. As a general rule, the overall condition of each well will be visually inspected at each  
3 visit to the well for ground water sampling purposes. The wells will be inspected semiannually.  
4 Maintenance problems encountered at any well location will be addressed as they occur.

### **E.2.1 Maintenance Implementation**

5           The overall condition of each well in the monitoring well network will be checked in  
6 conjunction with the water-level surveys. Observed damage will be noted in the field logbook  
7 and the Project Manager (PM) for well services and surveillance notified. Repairs to the  
8 damage(s) noted will be made prior to the next water level monitoring or groundwater sampling  
9 event.

### **E.2.2 Maintenance Tracking**

10           The PM, well services and surveillance, directs and tracks well repair activities as they  
11 occur. Changes to a well or wellhead, whether or not related to damage observed during an  
12 inspection, are recorded in field logbooks and/or well modification logs. Examples of changes  
13 that may occur include, but are not limited to, modifying surface casing dimensions,  
14 adding/removing the landing plate. If a well modification results in alteration of the current  
15 water-level measuring point, a new water-level measuring point will be established.

### **E.2.3 Corrective Actions**

16           In the event a discrepancy is discovered by field personnel or auditors, the appropriate  
17 corrective action will be initiated. The level of action taken is related to the level of the  
18 discrepancy. Corrective actions can range from field changes resulting from unforeseen field  
19 conditions to DOE reportable incidents.

## **E.3 Maintenance of Security System**

20           Maintenance of the RCRA barriers and related equipment will be performed by Facility  
21 Operations throughout the post-closure period. The need for maintenance shall be identified  
22 through routine inspection. Examples of maintenance that shall be performed include fence  
23 repair, and light replacement, as applicable.

1 Facility Operations Maintenance follows a preventive maintenance schedule approved by  
2 Facility Management. The schedule is maintained at the INTEC facility and is developed based  
3 on the specific RCRA interest involved. The Preventive Maintenance Procedures outline the  
4 equipment to be tested and methods to use to perform the tests. The frequency of inspection is  
5 based on the manufacturer recommendations and equipment history. Equipment problems and  
6 malfunctions identified during preventive maintenance are tracked through a work control  
7 system. The records shall be maintained for at least three years from the date of inspection and  
8 repair.

#### **E.4 Name of Contact for Post-Closure**

##### **IDAPA 58.01.05.008 [264.118 (b)(3)] and IDAPA 58.01.05.009 [265.118 (b)(3)]**

9 The name, address and telephone number of the person to contact during the post-closure  
10 period is:

11 INTEC Plant Shift Manager  
12 P.O. Box 2010  
13 Idaho Falls, ID 83403  
14 Phone number (208) 526-3100.

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**Volume 21  
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**Attachment 2  
Example of Inspection Checklists**

**Revision Date: August 25, 2011**

## WCF and CPP-601/627/640 HWMA/RCRA Well Inspection Checklist

Signature/Date

<b>Well Number:</b>				
Date and Time of Inspection:				
Previous Inspection Checklist Reviewed (Initials):				
Area/Item	Condition Acceptable? (Check One)		Describe the Nature of Any Repairs or Remedial Actions Necessary (for Items Checked "No")	Date of Completion for Any Necessary Repairs or Remedial Actions
Is well identifier in place and legible?**	Yes	No		
Are protective barriers in place?***	Yes	No		
Is the surface casing and cement pad intact?***	Yes	No		
Does well casing extend at least 12 inches above land surface and finished grade?*	Yes	No		
Is top of well casing completely covered?*	Yes	No		
Is wellhead cover securely attached to the well casing?*	Yes	No		
Comments:				

Open RCRA Remedial on this form:

Footnote Letter	Tracking Number	Date Remedial was Identified	Deficiency Description/Comments
Inspector's Name (printed):			
Inspector's Signature:			Date:
Facility Manager's Name (printed):			
Facility Manager's Signature:			Date:
Remedial Actions Completed or Not Required;			
Facility Manager's Signature:			

\* From IDAPA 37.03.09.36 Well Construction Standards.

\*\* From PER-112 HWMA/RCRA Post-Closure Permit, Section D.3 Groundwater Monitoring System

## RCRA WCF POST-CLOSURE MONITORING CAP INSPECTION

This data sheet is the current  
 revision date per EDMS

Signature/Date \_\_\_\_\_

Previous Inspection Checked (Initials): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Equip/Area Inspected	Types of Problems/ Inspection Items	Yes	No	Observations	Nature of Repairs or Remedial Actions	Completion Date For Repairs/ Remedial Actions
<b>Concrete Cap</b>	Surface Erosion					
	Cracks (cracks greater than 1/2" wide need to be repaired)					
	Spalling					
	Subsidence					
	Joint sealant present					
	Indication of Rodent Infestations					
<b>Surface Drainage</b>	Run-off drainage maintained away from cap					
<b>Brass Benchmarks Inspections</b>	Brass survey caps present					

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Open RCRA Remedial on this form:

Footnote Letter	Tracking Number	Date Remedial was Identified	Deficiency Description/Comments

Inspector's Name: (Print) \_\_\_\_\_ Inspector's Signature: \_\_\_\_\_  
 Facility Manager Name: (Print) \_\_\_\_\_ Facility Manager Signature: \_\_\_\_\_  
 Remedial Actions Completed or Not Required;  
 Facility Managers Signature: \_\_\_\_\_

**NOTE:** Inspection criteria is based on Volume 21 Hazardous Waste Management Act/Resource Conservation and Recovery Act Post-Closure Permit for the Idaho Nuclear Technology and Engineering Center Waste Calcining Facility, Permit Module IV.C Post Closure Care Inspection Plan and Attachment 2 Section D Inspection Schedule and Section E Maintenance Activities

## CPP-601/627/640 LANDFILL SEMIANNUAL INSPECTION OF EARTHEN COVER

\_\_\_\_\_  
 Signature / Date

**Notes:**

- 1: Inspections should be performed in spring and fall of each year.
- 2: Obtain a functional means of communication prior to performing inspection.
- 3: Areas with active construction or D&D shall be marked NA with activity description in comment section.

Inspection Date: \_\_\_/\_\_\_/\_\_\_

Approximate Time of Inspection: \_\_\_\_\_

Previous inspection report reviewed:  
 (Initials \_\_\_\_\_)

Inspection Items	Inspection Criteria	Issue/Concern		Observations/Comments (Location of issue or concern) (Use additional space below as needed)	Nature of Repairs or Remedial Actions Needed	Completion Date for Repairs or Remedial Actions
		Yes	No			
1. Surface Pooling	Pools of standing water greater than 2 inches deep and greater than 10 ft <sup>2</sup>					
2. Subsidence	Areas of subsidence greater than 2 inches deep and greater than 10 ft <sup>2</sup>					
3. Erosion	Erosion channels or runnels greater than 2 inches deep and greater than 10 ft <sup>2</sup>					
4. Animal Intrusion	Evidence of animal intrusion such as burrows.					

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
 Completion Date                  Time                  Printed Name of Inspector                  Inspector's Signature

**Further Comments (use additional sheet(s) as necessary):**

Comment No.	Inspection Item No.	Remarks

**Open RCRA remedial on this form (use additional sheet(s) as necessary):**

Issue No.	Tracking No.	Date Remedial Was Identified	Deficiency Description/Comments

Inspector's Name: (Print) \_\_\_\_\_ Inspector's Signature: \_\_\_\_\_

Facility Manager's Name: (Print) \_\_\_\_\_ Facility Manager's Signature: \_\_\_\_\_

Remedial Actions Completed or Not Required:

Facility Manager's Signature: \_\_\_\_\_

**NOTE:** Inspection criteria based upon HWMA/RCRA Closure Plan for the CPP-601/627/640 Landfill - Phase 2, DOE/ID-11431, Revision 2, September 2010.

**HWMA/RCRA INTEC POST-CLOSURE PERMIT  
FOR THE  
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**Volume 21  
Waste Calcining Facility and  
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**Attachment 2  
Example of Sampling and Analysis Plan Tables**

**Revision Date: August 25, 2011**

**Sampling and Analysis Plan Table for Chemical and Radiological Analysis (Sub 1 of 2)**

SAP Table #: WCF\_FEB2011  
 Project Name: WCF SPRING 2011 SEMIANNUAL GW MONITORING FEBRUARY 2011  
 SAP Table Date: 1/10/2011

Project Manager: Neil Hutten  
 Sampler: Danielle Millward  
 SAM POC: Donna Kitchner

Revision #: 1

Event	Media	Coll. Type	Planned Date	Location	Type of Location	Location Name	Depth (ft)	AT1	AT2	AT3	AT4	AT5	AT6	AT7	AT8	AT9	AT10	AT11	AT12	AT13	AT14	AT15	AT16	AT17	AT18	AT19	AT20				
6969	GROUND WATER	GRAB	02/07/2011	MW-5-2	MONITORING WELL	INTEC	106.5 - 126.5	1	1	1																					
6970	GROUND WATER	GRAB	02/07/2011	CPP-33-1	MONITORING WELL	INTEC	89 - 99	1	1	1																					
6971	GROUND WATER	GRAB	02/07/2011	MW-2	MONITORING WELL	INTEC	102 - 112	1	1	1																					
6972	GROUND WATER	GRAB	02/07/2011	ICPP-2018	MONITORING WELL	INTEC	97.9 - 117.9	1	1	1																					
6973	GROUND WATER	GRAB	02/07/2011	ICPP-2019	MONITORING WELL	INTEC	95.2 - 120.2	2	2	2																					
6974	GROUND WATER	GRAB	02/07/2011	CPP-55-46	MONITORING WELL	INTEC	93.1 - 113.1	2	2	2																					
6975	GROUND WATER	GRAB	02/07/2011	MW-10-2	MONITORING WELL	INTEC	141 - 151	1	1	1																					
6976	GROUND WATER	FB	02/07/2011	INTEC	Field Blank	QC	NA	1	1	1																					
6977	GROUND WATER	TB	02/07/2011	INTEC	Trip Blank	QC	NA	1	1	1																					

AT1: Metal Set#1 - Filtered

AT2: Semivolatiles

AT3: Volatiles

AT4: Volatiles

AT5: Volatiles

AT6: Volatiles

AT7: Volatiles

AT8: Volatiles

AT9: Volatiles

AT10: Volatiles

AT11: Volatiles

AT12: Volatiles

AT13: Volatiles

AT14: Volatiles

AT15: Volatiles

AT16: Volatiles

AT17: Volatiles

AT18: Volatiles

AT19: Volatiles

AT20: Volatiles

Analysis Suite:

Configuracies:

Comments:

Metal Set #1 - Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver

The order of collection priority if volume is limited is as follows: Metals, VOCs, then SVOCs

Sample Activity WCF370 - collect 16. QC analyses (16 volume for WCF37001V9 and WCF37001VA only, do not collect extra volume for the duplicate (02) samples

