

*Revision Date – September 30, 2020*

*Hazardous Waste Management Act/ Resource  
Conservation and Recovery Act  
(HWMA/RCRA) Work Plan for the Idaho  
National Laboratory (INL)*

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## ACRONYMS

AMWTP	Advanced Mixed Waste Treatment Project
ARA	Auxiliary Reactor Area
ARARs	applicable or relevant and appropriate requirements
ARP	Accelerated Retrieval Project
ARVFS	Army Reentry Vehicle Facility Site
ASB	Air Support Building
ATR Complex	Advanced Test Reactor Complex
BEA	Battelle Energy Alliance, LLC
C&S	certified and segregated
CDP	Calcine Disposition Project
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESB	Contaminated Equipment Storage Building (now known as EFF)
CFA	Central Facilities Area
CFR	Code of Federal Regulations
CITRC	Critical Infrastructure Test Range Center (formerly known as the Waste Reduction Operations Complex)
COCA	Consent Order and Compliance Agreement
CSSF	Calcined Solids Storage Facility
CTF	Contained Test Facility
CWI	CH2M-WG Idaho, LLC.
D&D&D	deactivation, decontamination, and decommissioning
DEQ	Department of Environmental Quality
DOE	Department of Energy (Idaho Operations Office)
EBR	Experimental Breeder Reactor
EFF	Experimental Fuels Facility (formerly known as the CESB)
EPA	Environmental Protection Agency

ETR	Engineering Test Reactor
ETS	Evaporator Tank System
FAST	Fluorinel Dissolution Process and Fuel Storage
FDP	Fluorinel Dissolution Process
FFA/CO	Federal Facilities Agreement and Consent Order
Fluor Idaho	Fluor Idaho, LLC.
FR	Federal Register
FS&R	Filling, Storage, and Remelt Facility
HCRWSF	Hazardous Chemical and Radioactive Waste Storage Facility (CPP-1619)
HCWHNF	Hazardous Chemical Waste Handling and Neutralization Facility
HEPA	high-efficiency particulate air
HFEF	Hot Fuel Examination Facility
HFLS	HEPA Filter Leaching System
HTRE	Heat Transfer Reactor Experiment
HWMA	Hazardous Waste Management Act
HW/MW	hazardous waste/mixed waste
HWSF	Hazardous Waste Storage Facility
ICPP	Idaho Chemical Processing Plant
IET	Initial Engine Test
IHX	Intermediate Heat Exchanger
ILRWMS	Intermediate-Level Radioactive Waste Management System
ILTSF	Intermediate-Level Transuranic Storage Facility
ILWMS	INTEC Liquid Waste Management System
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
ITG	Idaho Treatment Group, LLC
IWTU	Integrated Waste Treatment Unit

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LDRs	land disposal restrictions
LDUs	land disposal units
LET&D	Liquid Effluent Treatment and Disposal
LOFT	Loss-of-Fluid Test (facility)
M&O	management and operations
MCC	Multicurie Cell
MFC	Materials and Fuels Complex
MTR	Materials Test Reactor
MWSF	Mixed Waste Storage Facility
N/A	not applicable
NaK	sodium-potassium alloy
NOD	Notice of Deficiency
NODA	Naval Ordnance Disposal Area
NON/CO	Notice of Noncompliance/Consent Order
NRF	Naval Reactors Facility
NWCF	New Waste Calcine Facility
ORSA	Outside Radioactive Storage Area (formerly known as the RSSF)
OSA	Outside Storage Areas
PBF	Power Burst Facility
PEWE	Process Equipment Waste Evaporator (system)
PMN	permit modification notification
PMR	permit modification request
POC	point of contact
PREPP	Process Experimental Pilot Plant
PSS	Primary Sodium System
PSUs	Portable Storage Units
PWL	Process Waste Liquid

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PWTU	Portable Water Treatment Unit
RCRA	Resource Conservation and Recovery Act
RHMW	remote handled mixed waste
RMF	Retrieval Modification Facility
RMWSF	Radioactive Mixed Waste Staging Facility (CPP-1617)
ROD	Record of Decision
RSSF	Radioactive Sodium Storage Facility (now known as the ORSA)
RSTA	Reactivities Storage and Treatment Area
RSWF	Radioactive Scrap and Waste Facility
RTA	Request for Temporary Authorization
RTC	Reactor Technology Complex (now known as ATR Complex)
RWMC	Radioactive Waste Management Complex
SCMS	Sodium Components Maintenance Shop
SDS	Sodium Distillation System
SMC	Specific Manufacturing Capability
SPERT	Special Power Excursion Reactor Test
SPF	Sodium Process Facility
SPT	System Performance Test
SRP	Sludge Repackage Project (SRP)
SSA	SWEPP Storage Area
SSB	Sodium Storage Building
SSDTS	Secondary Sodium Drain Tank System
SSPS	Secondary Sodium Purification System
SSS	Secondary Sodium System
SWEPP	Stored Waste Examination Pilot Plant
TA	Temporary Authorization
TAN	Test Area North

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TBD	to be determined
TFF	Tank Farm Facility
THWS	TAN Hazardous Waste Storage
TRA	Test Reactor Area (now known as ATR Complex)
TREAT	Transient Reactor Test Facility
TSA	Transuranic Storage Area
TSA-RE	Transuranic Storage Area - Retrieval Enclosure
TSA-RE RMF	TSA-RE Retrieval Modification Facility
TSF	Technical Support Facility
VCO	Voluntary Consent Order
WCF	Waste Calcining Facility (located at INTEC)
WCF	Waste Characterization Facility (located at RWMC)
WEDF	Waste Engineering Development Facility
WERF	Waste Experimental Reduction Facility
WIPP	Waste Isolation Pilot Plant
WSF	Waste Storage Facility
WWSB	WERF Waste Storage Building

## INTRODUCTION

This work plan documents the proposed schedules for Hazardous Waste Management Act (HWMA)/Resource Conservation and Recovery Act (RCRA) regulated permitting and closure activities at the Idaho National Laboratory (INL). This document incorporates applicable amended Notice of Noncompliance/Consent Order (NON/CO) deadlines and proposed permit application, closure plan, and permit modification submittal dates.

**Table 1** presents the proposed schedule for deadlines/milestones for HWMA/RCRA regulated units located at the INL. These deadlines/milestones include milestones identified for HWMA/RCRA permitting and closure activities.

**Table 2** presents the proposed schedule of INL HWMA/RCRA regulated units to be closed.

**Table 3** presents closed INL HWMA/RCRA regulated units.

**Table 4** presents background information and descriptions for the INL HWMA/RCRA regulated units; this table also includes historical closure information.

**Appendix A** includes descriptions of waste management processes for INL HWMA/RCRA regulated units and related historical information of units closed under HWMA/RCRA regulations.

**Appendix B** provides historical summary information for INL HWMA/RCRA regulated units.

**Appendix C** provides the RCRA permitting points of contact (POC) matrix for the INL.



**Table 1.** DEQ/INL Proposed Permitting Schedule.

<b>HWMA/RCRA Permitting Items/Milestones</b>		<b>Deliverable Date</b>
<b>Hazardous Waste Management Act (HWMA)/Resource Conservation and Recovery Act (RCRA) Work Plan for the Idaho National Laboratory (INL) – Revision</b>		
1	Fluor Idaho, LLC. (Fluor Idaho) revises/updates the HWMA/RCRA Work Plan for the INL and posts the document on the Internet at the Fluor Idaho external web page @ <a href="https://fluor-idaho.com/Community">https://fluor-idaho.com/Community</a> by a target date of:	09/30/2020 and 04/30/2021
<b>Update to the Volume 1 – HWMA/RCRA Part A Permit Application for the INL – Idaho Nuclear Technology and Engineering Center (INTEC)</b>		
1	Fluor Idaho Transmits the Volume 1 update (if necessary) to the Idaho Department of Environmental Quality (DEQ) by a target date of:	03/31/2021
2	DEQ approves the revision to the Volume 1 Permit Application by a target date of:	TBD
<b>Update to the Volume 3 – HWMA/RCRA Part B Permit Application for the INL – General Information for INL Waste Management Units</b>		
1	Fluor Idaho Transmits the Volume 3 update (if necessary) to the DEQ by a target date of:	07/30/2021
2	DEQ approves the revision to the Volume 3 Permit Application by a target date of:	TBD
<b>AMWTP HWMA/RCRA Permit Class 2 PMR/RTA to add D003 to the Part A to allow processing of potentially pyrophoric S3000 (Sludge) Waste Stream in the Treatment Facility</b>		
1	Fluor Idaho transmits a Class 2 PMR/RTA for the AMWTP Permit to the DEQ by a target date of:	TBD
2	Fluor Idaho completes a public mail-out and legal notification for the Class 2 PMR/RTA – this notice announces the 60-day public comment period and identifies the date/time/place for the public meeting on the PMR – by a target date of:	within 7 days before/after submission of the PMR to DEQ
3	DEQ approves the RTA by a target date of:	TBD
4	Fluor Idaho holds a public meeting as required at TBD (during the public comment period) by a target date of:	TBD
5	The 60-day public comment period ends on:	TBD
6	DEQ approves the Class 2 PMR by a target date of:	TBD
7	Fluor Idaho transmits clean copy revised pages to the DEQ, by a target date of:	within 45 days of DEQ approval

**Table 1.** (continued)

<b>HWMA/RCRA Permitting Items/Milestones</b>		<b>Deliverable Date</b>
<b>Volume 18 Class 2 PMR/RTA for the RWMC/ARP for Processing Problematic Waste Streams in the SRP Treatment Process in WMF-1619 (ARP VII)</b>		
1	Fluor Idaho transmits a Class 2 PMR/RTA for the Volume 18 RWMC/ARP Permit to the DEQ by a target date of:	TBD
2	Fluor Idaho completes a public mail-out and legal notification for the Class 2 PMR/RTA – this notice announces the 60-day public comment period and identifies the date/time/place for the public meeting on the PMR – by a target date of:	within 7 days before/after submission of the PMR to DEQ
3	DEQ approves the RTA by a target date of:	TBD
4	Fluor Idaho holds a public meeting at TBD (during the public comment period) by a target date of:	TBD
5	The 60-day public comment period ends on:	TBD
6	DEQ approves the Class 2 PMR by a target date of:	TBD
7	Fluor Idaho transmits clean copy revised pages to the DEQ, by a target date of:	within 45 days of DEQ approval
<b>Volume 14 Class 2 Permit Modification Request (PMR)/Request for Temporary Authorization (RTA) for the Integrated Waste Treatment Unit (IWTU) – Outage J Modifications</b>		
1	Fluor Idaho transmits a Class 2 PMR/RTA for the Volume 14 ILWMS Permit to the DEQ by an estimated target date of:	11/30/2020*
2	Fluor Idaho completes a public mail-out and legal notification for the Class 2 PMR/RTA – this notice announces the 60-day public comment period and identifies the date/time/place for the public meeting on the PMR – by a target date of:	within 7 days before/after submission of the PMR to DEQ
3	DEQ approves the RTA by a target date of:	TBD
4	Fluor Idaho holds a public meeting at TBD (during the public comment period) by a target date of:	TBD
5	The 60-day public comment period ends on:	TBD
6	DEQ approves the Class 2 PMR by a target date of:	TBD
7	Fluor Idaho transmits clean copy revised pages to the DEQ by a target date of:	within 45 days of DEQ approval
*Target date revised due to COVID-19 Standby issued to Fluor Idaho on 03/26/2020. This Target Date may be extended pending further evaluation of schedule impacts due to COVID-19.		

**Table 1.** (continued)

<b>HWMA/RCRA Permitting Items/Milestones</b>		<b>Deliverable Date</b>
<b>Update to the IWTU System Performance Test (SPT) Plan (PLN-3298)</b>		
1	Fluor Idaho updates and transmits the SPT Plan (PLN-3298) to DEQ for approval by an estimated target date of:	10/31/2020*
2	DEQ approves the SPT Plan by a target date of:	TBD
3	Fluor Idaho transmits the IWTU System Performance Test (SPT) Report to the DEQ by a target date of:	90 days after SPT completion
*Target Date revised due to COVID-19 Standby issued to Fluor Idaho on 03/26/2020. This Target Date may be extended pending further evaluation of schedule impacts due to COVID-19.		
<b>Volume 14 Class 2 PMR for Changes to the Permit based on the IWTU SPT results and other informational changes</b>		
1	Fluor Idaho transmits the Volume 14 Class 2 PMR to the DEQ by a target date of:	45 days after the SPT report is issued
2	Fluor Idaho completes a public mail-out and legal notification for the Class 2 PMR – this notice announces the 60-day public comment period and identifies the date/time/place for the public meeting on the PMR, by a target date of:	within 7 days before/after submission of the PMR to DEQ
3	Fluor Idaho holds a public meeting as required at TBD (during the public comment period) by a target date of:	TBD
4	The 60-day public comment period ends by a target date of:	TBD
5	DEQ approves the Class 2 PMR by a target date of:	TBD
6	Fluor Idaho transmits clean copy pages of the revised permit to the DEQ by a target date of:	within 45 days of DEQ approval
<b>Volume 18 HWMA/RCRA Part B Permit – Permit Reapplication for INTEC</b>		
1	Fluor Idaho transmitted the Volume 18 HWMA/RCRA Permit Reapplication for Storage and Treatment Permit at the INTEC to the DEQ on:	10/23/2018
2	The DEQ completed an initial completeness review of the Volume 18 INTEC Permit Reapplication and issued an initial notice of completeness on:	12/20/2018
3	The DEQ prepares/issues a draft of the Volume 18 INTEC Permit for 45-day public comment on:	TBD
4	DEQ holds public meeting on the Draft Volume 18 INTEC Permit on:	TBD
5	DEQ public comment period ends on:	TBD

**Table 1.** (continued)

<b>HWMA/RCRA Permitting Items/Milestones</b>		<b>Deliverable Date</b>
6	DEQ responds to all comments and issues a final decision to deny, modify the draft permit or issue the Permit as proposed, by a target date of:	TBD
7	Following issuance of the final HWMA/RCRA permit, Fluor Idaho submits a PMR to administratively combine the INTEC portion of the permit with the current HWMA Partial Storage Permit for the Calcine Solids Storage Facility, by a target date of:	TBD
<b>Volume 18 HWMA/RCRA Part B Permit – Permit Reapplication for RWMC ARP</b>		
1	Fluor Idaho transmitted the Volume 18 HWMA/RCRA ARP Permit Reapplication for Storage and Treatment Permit to the DEQ on:	10/23/2018
2	The DEQ completed an initial completeness review of the Volume 18 ARP Permit Reapplication and issued an initial notice of completeness on:	12/20/2018
3	The DEQ prepares/issues a draft of the Volume 18 ARP Permit for 45-day public comment on:	TBD
4	DEQ holds public meeting on the Draft Volume 18 ARP Permit on:	TBD
5	DEQ public comment period ends on:	TBD
6	DEQ responds to all comments and issues a final decision to deny, modify the draft permit or issue the Permit as proposed, by a target date of:	TBD
7	Following issuance of the final HWMA/RCRA permit, Fluor Idaho submits a PMR to administratively combine the RWMC portion of the permit with the Advanced Mixed Waste Treatment Project HWMA/RCRA Permit, by a target date of:	TBD

**Table 2.** DEQ/INL Waste Management Processes to be Closed.

<b>RCRA CLOSURES AND NON/CO ACTIONS RELATED TO FACILITY CLOSURES AT THE INL</b>		
<b>1</b>	<b>INTEC Tank Farm Facility (TFF)-Phase V – Tanks VES-WM-187, 188, 189, and 190 and Remaining TFF RCRA Piping</b>	
	<ul style="list-style-type: none"> <li>Closure plan approval on:</li> </ul>	01/22/2009
	<ul style="list-style-type: none"> <li>Closure Plan, Rev 5 submitted to DEQ on:</li> </ul>	10/21/2012
	<ul style="list-style-type: none"> <li>Submit PE and Owner/Operator Certification for TFF Phase 5-A Closure to DEQ by:</li> </ul>	05/31/2016
	<ul style="list-style-type: none"> <li>DEQ acceptance of HWMA/RCRA Closure Certification of Tank Farm Facility Phase 5-A on:</li> </ul>	07/01/2016
	<ul style="list-style-type: none"> <li>Final TFF Closure completed by target date of:</li> </ul>	TBD
<b>2</b>	<b>WMF-636 AMWTP –TSA RE Interim Status Unit Closure of Treatment and Storage Units</b>	
	<ul style="list-style-type: none"> <li>Fluor Idaho transmits the 45-day Notification of Intent to Close the AMWTP HWMA/RCRA TSA WMF-636 Interim Status Unit on:</li> </ul>	10/15/2019
	<ul style="list-style-type: none"> <li>Fluor Idaho begins closure activities under the approved existing Interim Status Closure Plan on:</li> </ul>	11/30/2019
	<ul style="list-style-type: none"> <li>Fluor Idaho transmits Request for Amendment to the AMWTP HWMA/RCRA TSA Interim Status Document (TSA-06) to revise the existing Closure Plan on:</li> </ul>	02/27/2020
	<ul style="list-style-type: none"> <li>DEQ approval of Amendment to TSA IS Document Closure Plan:</li> </ul>	03/12/2020
	<ul style="list-style-type: none"> <li>Closure of TSA RE completed on or before a target date of:</li> </ul>	11/29/2021
	<ul style="list-style-type: none"> <li>Qualified Engineer and Owner/Operator Certification of Closure to the DEQ by a target date of:</li> </ul>	60 days after completion of closure
	<ul style="list-style-type: none"> <li>DEQ approval of Closure by a target date of:</li> </ul>	TBD
<b>3</b>	<b>WMF-636 Pad 2 AMWTP HWMA/RCRA Permit Closure of Storage Unit</b>	
	<ul style="list-style-type: none"> <li>Fluor Idaho transmits the 45-day Notification of Intent to Close WMF-636 Pad 2 by a target date of:</li> </ul>	TBD
	<ul style="list-style-type: none"> <li>Fluor Idaho begins closure activities under the approved existing HWMA/RCRA Closure Plan by a target date of:</li> </ul>	TBD
	<ul style="list-style-type: none"> <li>Fluor Idaho transmits AMWTP HWMA/RCRA Permit Class 1*PMR to revise the Attachment 8.E, Section I, Closure Plan for WMF-636 Pad 2 to DEQ by a target date of:</li> </ul>	TBD

**Table 2.** (continued)

<b>RCRA CLOSURES AND NON/CO ACTIONS RELATED TO FACILITY CLOSURES AT THE INL</b>		
	<ul style="list-style-type: none"> <li>• DEQ approves the Class 1* PMR by a target date of:</li> </ul>	TBD
	<ul style="list-style-type: none"> <li>• Qualified Engineer and Owner/Operator Certification of Closure to the DEQ by a target date of:</li> </ul>	60 days after completion of closure
	<ul style="list-style-type: none"> <li>• DEQ approval of Closure by a target date of:</li> </ul>	TBD
<b>4</b>	<b>WMF-1617 Facility (ARP V) – Closure of Treatment and Storage Units</b>	
	<ul style="list-style-type: none"> <li>• 45-Day Notification of Intent to Begin HWMA/RCRA Closure of WMF-1617 (CCN 323988) transmitted to DEQ on:</li> </ul>	08/07/2019
	<ul style="list-style-type: none"> <li>• Fluor Idaho begins closure activities under the approved existing Closure Plan on:</li> </ul>	10/01/2019
	<ul style="list-style-type: none"> <li>• Fluor Idaho transmits the Class 1* PMR to revise the existing approved Closure Plan for the WMF-1617 facility (ARP V) to DEQ on:</li> </ul>	10/31/2019
	<ul style="list-style-type: none"> <li>• DEQ approval of Closure Plan Class 1* PMR on:</li> </ul>	12/20/2019
	<ul style="list-style-type: none"> <li>• WMF-1617 Closure activities complete on:</li> </ul>	08/18/2020
	<ul style="list-style-type: none"> <li>• Qualified Engineer and Owner/Operator Certification of Closure to the DEQ by a target date of:</li> </ul>	10/19/2020
	<ul style="list-style-type: none"> <li>• DEQ approval of Closure by a target date of:</li> </ul>	TBD

**Table 3.** Closed INL Waste Management Processes.

<b>Unit Process Name</b>	<b>Location</b>	<b>DEQ Approved Closure Date</b>
MFC-794 Experimental Fuels Facility (EFF)	MFC	04/21/2016
MFC Secondary Sodium System Ancillary Piping and Equipment	MFC	12/31/2015
RWMC/Accelerated Retrieval Project (ARP) WMF-1619 and WMF-1621 Trailer Storage Areas	RWMC/ARP	09/23/2014
MFC-799 and MFC-799A Sodium Process Facility (SPF) Final Closure including SPF Thin Film Evaporator	MFC	03/07/2014
MFC-799 SPF partial tank system closure	MFC	09/02/2013
Experimental Breeder Reactor (EBR)-II [Container Storage (MFC-767) – Storage Pit and Storage Holes; Secondary Sodium Drain Tank (MFC-766); Primary Sodium System (MFC-767)]	MFC	09/20/2012
Voluntary Consent Order (VCO)-5.8.d Test Reactor Area (TRA)-632 Hot Cell Drain Piping	Advanced Test Reactor (ATR) Complex	09/5/2012
VCO-5.8d – TRA-630 Catch Tank System Courtyard Components	ATR Complex	06/29/2012
VCO TRA-004 Hot Waste Management System	ATR Complex	10/31/2011
HWMA/RCRA Landfill Closure for the CPP-601/627/640 – Phase 2	INTEC	09/27/2011
CPP-602 Laboratory Drain Lines	INTEC	12/22/2010
VCO INTEC-066, 067, 068, and 072 FDP Make-up and Cooling and Heating Systems (Out of Cell)	INTEC	04/15/2010
CPP-601 Deep Tanks Landfill Closure - Phase 1	INTEC	02/19/2010
Sodium Components Maintenance Shop (SCMS) Buildings MFC-793E and MFC-793F	MFC	10/30/2009
Tank Farm Facility Phase I – IV Closure Certifications	INTEC	
<ul style="list-style-type: none"> <li>• DEQ Acceptance of Pre-grout Certification</li> <li>• Grouting Certifications Accepted by DEQ</li> </ul>		06/02/2009 10/05/2009

**Table 3.** (continued)

<b>Unit Process Name</b>	<b>Location</b>	<b>DEQ Approved Closure Date</b>
Transuranic Storage Area-Retrieval Enclosure Retrieval Modification Facility (TSA-RE RMF)	RWMC	07/09/2009
INTEC VES-SFE-20 Hot Waste Tank System	INTEC	07/09/2009
TRA-604 Laboratory Components	ATR Complex	06/01/2009
VES-SFE-106 Radioactive Solids and Liquid Waste Storage Vessel	INTEC	05/14/2009
VCO INTEC-601 CPP-601 Waste Transfer Lines to the Tank Farm Facility	INTEC	04/22/2009
CPP-641 Westside Waste Holdup Tank System	INTEC	04/17/2009
VCO TRA-007 TRA/Materials Test Reactor (MTR) Warm Waste System	ATR Complex	04/15/2009
VCO INTEC 055 INTEC Rare Gas Plant North Gas Cell System	INTEC	02/09/2009
VCO NEW-CPP-016 CPP-603 Basin Water Treatment System	INTEC	10/27/2008
MFC Building 720 (Transient Reactor Test Facility or TREAT)	MFC	09/11/2007
INTEC CPP-640 Headend Storage Tank System	INTEC	06/12/2008
Test Area North (TAN) V-Tanks 1, 2, and 3 Intermediate-Level Radioactive Waste Feed System	TAN	12/28/2007
VCO-TRA-009 FDP System	ATR Complex	11/02/2007
VCO-5.8.d Reactor Technology Complex (RTC) Catch Tank System (TRA-630)	ATR Complex	08/29/2007
TAN-666 Radioactive Liquid Waste Transfer and Storage Facility (VCO-NEW-TAN-008 TAN-666)	TAN	08/07/2007
SPF Transfer Line	MFC	05/15/2007
TAN/Technical Support Facility (TSF) Intermediate Level Radioactive Waste Management System (ILRWMS) Phase I: Treatment Subsystem Addendum [(TAN-616) (VCO NEW- TAN-008)]	TAN	04/02/2007



**Table 3.** (continued)

<b>Unit Process Name</b>	<b>Location</b>	<b>DEQ Approved Closure Date</b>
INTEC New Tank Farm Unit (proposed)	INTEC	10/25/2006
CPP-637/620 VCO Units INTEC-087 and INTEC-091	INTEC	10/19/2006
VCO INTEC-076 INTEC/FDP and Fuel Storage (FAST) Basin Water Aquaskid System	INTEC	09/08/2006
ILRWMS – Phase I Treatment Subsystem (TAN-616)	TAN	03/02/2006
VCO TRA-023 Engineering Test Reactor (ETR) P-7 Experimental Water Loop System	ATR Complex	12/19/2005
VCO TRA-002 ETR Hot Waste Tank System	ATR Complex	12/19/2005
ILRWMS – Phase III Holding Tank System (PM-2A Tanks)	TAN	11/04/2005
INTEC Process Equipment Waste Evaporator (PEWE) – Evaporator Condensate System, Tank System INTEC-049 (VCO Site Tank-005)	INTEC	09/12/2005
TAN-20 Heat Transfer Reactor Experiment (HTRE)-3 Mercury Spill at the Contained Test Facility (CTF)/Loss-of-Fluid Test (LOFT)	TAN	07/25/2005
CPP-1619 Hazardous Chemical and Radioactive Waste Storage Facility (HCRWSF)	INTEC	04/04/2005
CPP-601 D-Cell	INTEC	01/05/2005
New Waste Calcining Facility (NWCF) Calciner	INTEC	12/14/2004
TAN-607 Demineralized Water System (VCO TAN-031)	TAN	11/16/2004
Radioactive Sodium Storage Facility (RSSF)	MFC	08/03/2004
Mixed Waste Storage Facility (MWSF) Repackaging Unit	Critical Infrastructure Test Range Center (CITRC)	05/10/2004
MWSF, Waste Experimental Reduction Facility (WERF) Waste Storage Building (WWSB), and MWSF Portable Storage Units (PSUs)	CITRC	04/13/2004
TAN-647 Storage Building	TAN	01/09/2004

**Table 3.** (continued)

<b>Unit Process Name</b>	<b>Location</b>	<b>DEQ Approved Closure Date</b>
WERF Incinerator (Building PER-609), WERF Drum Feed/Blending Unit (PER-609, Room 111A), WERF Stabilization Units (PER-609, Rooms B106 and 109), WERF Repackaging Unit (PER-609, Room B102)	CITRC	09/30/2003
WERF Sort, Size, and Segregate Unit	CITRC	09/23/2002
TAN-628 – TAN Hazardous Waste Storage (THWS)	TAN	02/20/2002
TRA Filling, Storage, and Remelt (FS&R) Facility (VCO Unit Closure)	ATR Complex	05/24/2002
EBR-II Primary Tank Shutdown Coolers and the Primary Purification Sodium Potassium (NaK) Coolant Loop	MFC	02/14/2002
EBR-II Secondary Sodium Purification System (SSPS) – Cold Trap	MFC	02/14/2002
SPF Transfer Line	MFC	05/15/2007
WERF Macroencapsulation	CITRC	01/03/2002
Intermediate-Level Transuranic Storage Facility (ILTSF) – Pad 2	RWMC	11/12/2001
Waste Characterization Facility (WCF) at RWMC Administrative Closure	RWMC	09/25/2000
Hazardous Chemical Waste Handling and Neutralization Facility (HCWHNF)	INTEC	09/18/2000
WERF Waste Storage/Feed Tanks – Administrative Closure	CITRC	05/16/2000
Process Experimental Pilot Plant (PREPP) Incinerator and Waste Stabilization (2 Units)	TAN	03/07/2000
HTRE – No. 3	EBR-I	01/31/2000
CPP-633 Waste Calcining Facility (WCF) at INTEC	INTEC	11/02/1999*
CPP-627 Multicurie Cell (MCC) – Administrative Closure	INTEC	07/20/1999
Portable Water Treatment Unit (PWTU)	CITRC/TAN	07/08/1999
Certified and Segregated (C&S) Building and Air Support Building (ASB)-II	RWMC	04/16/1999

**Table 3.** (continued)

<b>Unit Process Name</b>	<b>Location</b>	<b>DEQ Approved Closure Date</b>
Waste Engineering Development Facility (WEDF) Storage and Waste Stabilization (2 units)	CITRC	12/02/1997
Specific Manufacturing Capability (SMC) Calciner, Stabilization, and Storage (3 units)	TAN	09/24/1997
TAN-647 Sodium Storage	TAN	06/13/1997
Naval Ordnance Disposal Area (NODA) Storage and Treatment	North of Central Facilities Area (CFA)	02/25/1997
TAN-607A Evaporator	TAN	02/25/1997
Hazardous Waste Storage Facility (HWSF)	CFA	02/04/1997
TAN-681 Evaporator	TAN	12/20/1996
Initial Engine Test (IET) Mercury Storage	North of TAN	12/20/1996
Army Reentry Vehicle Facility Site (ARVFS) Storage	South of TAN	09/12/1996
CPP-666 FAST – Storage and Treatment Tanks	INTEC	05/13/1996
TAN-726/726A Chromate Treatment and Storage Tanks	TAN	12/26/1995
Idaho Chemical Processing Plant (ICPP) Percolation Ponds A & B	INTEC	11/29/1995
TRA-610 Lead Storage	ATR Complex	10/27/1995
ILTSF – Pad 1	RWMC	10/24/1994
Reactives Storage and Treatment Area (RSTA)	Auxiliary Reactor Area (ARA)	10/24/1994
TAN-666 Storage Tank and Treatment Units – Administrative Closure	TAN	10/20/1994
ARVFS Chemical Treatment Unit	South of TAN	09/09/1994
CPP-663 Hot Shop Storage Tank	INTEC	08/22/1994

\*The INTEC WCF was initially closed as a landfill. Subsequent to this closure, per the request of the DEQ, the INL submitted a HWMA/RCRA Post-Closure Permit Application for the WCF. The DEQ subsequently issued the WCF Post-Closure Permit – with an effective date of 10/16/2003.

**Table 4.** Work Plan for the INL Waste Management Units

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
Volume 1 (PER-101)	HWMA/RCRA Part A Permit Application for the INL	S02	2	INL	A	Revision to Volume 1 transmitted to DEQ on 03/26/2015. Contractor Transition Class 1* PMR approved by DEQ with a Revision Date of 06/01/2016. March 2018 Revision submitted to DEQ on 03/15/2018. DEQ approved the revision on 03/22/2018. DEQ concurred that the 2019 Annual Update to the Volume 1 Part A Permit Application was not required on 02/05/2019
Volume 1a  N/A	HWMA/RCRA Part A Permit Application for the INL, Pads TSA-1/TSA-R  Now known as the: Transuranic Storage Area (TSA) Interim Status (IS) Unit at the Advanced Mixed Waste Treatment Project (AMWTP) within the Idaho National Laboratory (INL) EPA ID No. ID4890008952 (TSA IS Document)	S01/T04	1, 4a, 4b, 4c, 4l	RWMC	A	DEQ terminated interim status of the TSA-RE RMF on 07/09/2009. DEQ approved the turnover of Pad 2 from interim status to a fully permitted unit on 06/15/2009. DEQ approved the addition of treatment (liquid absorption, decanting, neutralization, and repackaging, and sizing) in the TSA-R and TSA-1 on 03/02/2011. ITG transmitted a revised interim status document to the DEQ on 09/09/2014 and DEQ approved the revised information on 09/17/2014. Contractor Transition Class 1* PMR approved by DEQ with a Revision Date of 06/01/2016.
Volume 2 (Units have been permitted - this volume is now considered inactive – see MFC Consolidated Permit or EBR-II Complex Permits.)	RCRA Part A Permit Application for the INL, MFC Interim Status Units	Not Applicable (N/A)	N/A	MFC		All interim status units at the MFC were permitted as of 11/10/2002.
Volume 3 (PER-103)	HWMA/RCRA Part B Permit Application for the INL – General Information for INL Waste Management Units	N/A	N/A	INL	N/A	Partial permits for the INL have been approved by the DEQ. Volume 3, Rev. 16 (July 2013) – transmitted to the DEQ on July 25, 2013. DEQ approved the submittal on August 7, 2013. No revision will be required for FY 2014 with DEQ concurrence issued on 5/29/2014. Additionally, no revision will be required for FY 2015 with DEQ concurrence issued on July 2, 2015. Contractor Transition Class 1* PMR approved by DEQ with a Revision Date of 06/01/2016. Volume 3 Annual Update,

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
Continued: Volume 3 (PER-103)						Revision Date: July 2017, accepted by DEQ on 07/14/2017. DEQ concurred that the 2019 Annual Update to the Volume 3 Permit Application was not required on 02/05/2019.
Volume 4  <b>NOTE:</b> (This volume is now considered inactive - see MFC Consolidated Permit.)	MFC Storage Units:  Radioactive Scrap and Waste Facility (RSWF)  RSSF  Hot Fuel Examination Facility (HFEF)  Sodium Storage Building (SSB)	S01  N/A  S01, T04  S01	1  N/A  1, 2, 4a, 4l, 4m*  1	MFC  Building-771  Building-797  Building-785  Building-703	A  N/A  A  A/B	Permitted 01/24/1994.  Permitted 01/24/1994. Completion of closure activities approved by the DEQ on 08/03/2004.  Permitted 12/1999. <b>NOTE:</b> 4m* (other treatment) = neutralization.  Permitted 12/1999.
Volume 5 [This volume is now considered inactive – see Advanced Mixed Waste Treatment Project (AMWTP) HWMA/RCRA Permit.]	ILTSF – Pad 2  *Stored Waste Examination Pilot Plant (SWEPP) Storage Area (SSA)  Type II Modules – WMF-628 – WMF-634 Type I Module – WMF-635	N/A  S01  S01	N/A  1  1	RWMC – South west corner of TSA  RWMC – WMF-610  RWMC – WMF-628	N/A  A  A	Permitted 11/13/1995. Closure approved by the DEQ on 11/12/2001.  Permitted September 1996 w/PMR approval. Permit Renewal Effective Date – 06/04/2008.  Permitted 11/13/95. Permit Renewal Effective Date – 06/04/2008.
Volume 6 (This volume is now considered inactive.)	NWCF Calciner  NWCF Storage & Treatment Tanks	N/A  S02, T01	N/A  2, 4c	INTEC – CPP-659  INTEC – CPP-659	N/A  A	Closed 12/14/04.  Permitted. See Volume 14 information.
Volume 7 (Unit is closed – this volume is now considered inactive)	HWSF	N/A	N/A	CFA-637	N/A	Permitted 01/24/1994. Closure approved by the DEQ on 02/04/1997.
Volume 8 (Unit is closed – this volume is now considered inactive.)	HCWHNF	N/A	N/A	INTEC –CPP-620 Annex	N/A	Permitted 05/01/1995. Closure approved by the DEQ on 09/18/2000.

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
Volume 9 (This volume is now considered inactive.)	WERF Incinerator	N/A	N/A	CITRC PER-609	N/A	DEQ approved completion of closure activities on 09/30/2003.
	WERF Waste Stabilization	N/A	N/A	CITRC – Special Power Excursion Reactor Test (SPERT)-III	N/A	DEQ approved completion of closure activities on 09/30/2003.
Volume 10 (This volume is now considered inactive – see Volume 14 or Volume 18 Permits.)	Liquid Effluent Treatment & Disposal (LET&D) Fractionators**	S02, X99	2, 4m	INTEC– CPP-1618	A	Permitted – Effective Date 10/18/2004.
	LET&D Storage Tank**	S02	2	INTEC – CPP-1618	A	Permitted – Effective Date 10/18/2004.
	LET&D Nitric Acid Recycle Tank System**	S02	2	INTEC – CPP-1618	A	Permitted – Effective Date 10/18/2004.
	PEWE Condensate/Feed Storage Tanks**	S02, T01	2, 4c	INTEC – CPP-604	A	Permitted – Effective Date 10/18/2004.
	FAST Container Storage*	S01	1	INTEC – CPP-659	A/B	Permitted – Effective Date 04/27/2009.
	NWCF Evaporator Tank System (ETS)**	S02, X99	4m	INTEC – CPP-659	A	Permitted – Effective Date 10/18/2004.
	NWCF High Efficiency Particulate Air (HEPA) Filter Leaching System (HFLS)*	S02, T01	2, 4c	INTEC – CPP-659	A/B	Permitted – Effective date 04/27/2009.  *NOTE: These units have been incorporated into Volume 18 Part B Permit ** NOTE: These units have been incorporated into Volume 14 Part B Permit
Volume 11 (Units are closed – this volume is now considered inactive.)	MWSF	N/A	N/A	CITRC – PER-613	N/A	Permitted 01/27/2000. Completion of closure activities approved by the DEQ on 04/13/2004.
	MWSF PSUs	N/A	N/A	CITRC – SPERT-IV	N/A	Permitted 01/27/2000. Completion of closure activities approved by the DEQ on 04/13/2004.
	WWSB	N/A	N/A	CITRC – PER-623	N/A	Permitted 01/27/2000. Completion of closure activities approved by the DEQ on 04/13/2004.
	WERF Macroencapsulation*	N/A	N/A	CITRC – PER-622	N/A	Permitted 01/27/2000. Administrative Closure of the WERF Macroencapsulation Unit was approved by the DEQ on 01/03/2002.
	WERF Sizing *	N/A	N/A	CITRC – PER-622	N/A	Permitted 01/27/2000. Completion of closure activities approved by the DEQ on 09/23/2002.

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
Continued: Volume 11 (Units are closed – this volume is now considered inactive.)	THWS**  * <b>NOTE:</b> Incorporated from Vol. 19 Part B Permit Appl. ** <b>NOTE:</b> Incorporated from Vol. 12 Part B Permit Appl.	N/A	N/A	TAN-628	N/A	THWS Permit Expired on 06/01/2002. Completion of closure activities approved by the DEQ on 02/20/2002.
Volume 12 (Unit is closed - this Volume is now considered inactive – see Volume 11 Permit.)	THWS  <b>NOTE:</b> This information was incorporated into Vol. 11 Part B permit application, per NOD from DEQ.	N/A	N/A	TAN-628	N/A	<b>Incorporated into Volume 11 Permit</b>
Volume 13 (This Volume is now considered inactive.)	TSA- RE RMF	N/A	N/A	RWMC	N/A	DEQ terminated Interim Status for the TSE-RE RMF on 07/09/2009.
	WCF at RWMC	N/A	N/A	RWMC	N/A	Administrative Closure approved by the DEQ 09/25/2000.
Volume 14 (PER-111)	ILWMS			INTEC		Volume 14 Permitted – Permit Effective Date: 11/20/2014. Class 2 PMR – Permit Revision Date: 11/27/2017. DEQ approved Class 3 PMR on 08/06/19 with a Permit Effective Date of: 09/05/2019.
	CPP-604 Evaporator Feed Sediment Tank (VES-WL-132)	S02, T01	2, 4m	INTEC – CPP-604	A	
	CPP-604 Evaporator Feed Collection Tank (VES-WL-133)	S02, T01	2, 4c, 4e	INTEC – CPP-604	A	
	CPP-604 Surge Tank for VES-WL-133 (VES-WL-102)	S02, T01	2, 4c, 4e	INTEC – CPP-604	A	
	CPP-604 Evaporator Head Tank (VES-WL-109)	S02	2	INTEC – CPP-604	A	
	CPP-604 Evaporator Unit (EVAP-WL-129, -161)	S02, X99	2, 4m	INTEC – CPP-604	A	
	CPP-604 Process Condensate Surge Tanks (VES-WL-134, -131)	S02	2	INTEC – CPP-604	A	
	CPP-604 Off-gas Condensate Knock Out Tank (VES-WL-108)	S02	2	INTEC – CPP-604	A	
	CPP-604 Bottoms Collection Tanks (VES-WL-111, -101)	S02, T01	2, 4c, 4e	INTEC – CPP-604	A	
	CPP-641 Westside Waste Holdup Tanks (VES-WL-103, -104, -105)	N/A	N/A	INTEC – CPP-641	N/A	DEQ approved closure of CPP-641 Tank System on 04/17/2009.
CPP-604 Tank Farm Tanks (VES-WM-100, -101, -102)	S02, T01	2, 4c, 4e	INTEC – CPP-604	A		

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
<u>Continued:</u> Volume 14 (PER-111)	CPP-601 Deep Tanks (VES-WG-100, -WG-101, VES-WH-100, -WH-101)	N/A	N/A	INTEC – CPP-601	N/A	DEQ approved landfill closure of the CPP-601 Deep Tanks (Phase 1) on 02/19/2010. These tanks are now regulated under the HWMA/RCRA Closure Plan for the CPP-601/627/640 Landfill Phase 2 (Rev. 2, September 2010), which was approved by the DEQ on September 30, 2010. The CPP-601 deep tanks were incorporated into the CPP-601/627/640 Landfill Closure – Phase 2 as part of the Volume 21 – INTEC Post Closure Permit (Revision Date - 08/25/2011).
	CPP-604 Process Waste Liquid (PWL) System Tanks (VES-WL-135, -136, -137, -138, -139, -142, -144, -150)	S02	2	INTEC – CPP-604	A	
	CPP-604 Process Condensate Collection Tanks (VES-WL-106, -107, -163)	S02, T01	2, 4c, 4e	INTEC – CPP-604	A	
	Acid Fractionator Waste Feed Head Tank (VES-WLK-197)	S02	2	INTEC – LET&D	A	
	Acid Fractionator (VES-WLL-170, VES-WLK-171)	S02, X99	2, 4m	INTEC – LET&D	A	
	Acid Fractionator Bottoms Tank (VES-WL-195)	S02	2	INTEC – LET&D	A	
	LET&D Nitric Acid Recycle Tank System (VES-NCR-171, -173)	S02	2	INTEC – LET&D	A	
	CPP-659 Blend/Hold Tanks (VES-NCC-101, -102, -103)	S02, T01	2, 4c, 4e	INTEC – CPP-659	A	
	CPP-659 Fluoride Hot Sump Tank (VES-NCC-119)	S02, T01	2, 4c, 4e	INTEC – CPP-659	A	
	CPP-659 Non-Fluoride Hot Sump Tank (VES-NCC-122)	S02, T01	2, 4c, 4e	INTEC – CPP-659	A	
	CPP-659 Evaporator Unit (EVAP-NCC-150 includes: VES-NCC-150, HE-NCC-350, and HE-NCC-351)	S02, X99	2, 4m	INTEC – CPP-659	A	
	CPP-659 Process Off-gas Condensate System (VES-NCC-108, -116, -136)	S02, T01* (*VES-NCC-108 only)	2, 4c, 4e	INTEC – CPP-659	A	
	CPP-659 Constant Head Feed Tank (VES-NCC-152)	S02	2	INTEC – CPP-659	A	
	IWTU Container Storage Areas (Vault Storage Area, Vault Staging Area)	S01	1	INTEC – CPP-1696	A	
	CPP-1696 Waste Feed Tank (VES-SRC-131)	S02, T01	2,4c	INTEC – CPP-1696	A	
	CPP-1696 Sump Tank (VES-SRC-133)	S02, T01	2, 4c	INTEC – CPP-1696	A	
	CPP-1696 Clarifier Tank (VES-SRC-134)	S02, T01	2, 4c	INTEC – CPP-1696	A	



**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
<u>Continued:</u> Volume 14 (PER-111)	CPP-1696 Product Receiver/Cooler Tanks (VES-SRC-190, -191)	S02	2	INTEC – CPP-1696	A	
	CPP-1696 Firewater Collection Tank (TK-SRE-196)	S02	2	INTEC – CPP-1696	A	
	CPP-1696 Condensate Collection Tank (TK-SRH-141)	S02	2	INTEC – CPP-1696	A	
	CPP-1696 Steam Reforming System (VES-SRC-140, VES-SRC-160)	X99	4c	INTEC – CPP-1696	A	
	CPP-1696 IWTU Product Load-Out Cells (Rooms 112 and 113)	S03	5	INTEC – CPP-1696	A	
Volume 15 [This volume is now considered inactive – see MFC Consolidated Permit (PER-116).]	ARVFS Sodium-Potassium Waste Treatment at MFC	N/A	N/A	MFC	N/A	ARVFS Treatment closed 09/09/1994.
	SCMS	S01, S02, T01, T04	1, 2, 4a, 4c, 4j, 4l, 4m	Building-797	A/B	Incorporated into the HWMA/RCRA consolidated Storage and Treatment Permit for the MFC.
Volume 16 [This volume is now considered inactive – see MFC EBR-II Permit (PER-120)]	MFC Treatment Units:			MFC		
	EBR-II Primary Sodium System (PSS)	S01, S02, T01	1,2,4c	Building-767/795	A	Permitted 11/10/2002.
	EBR-II SSS	S02, T01	2, 4c	Building-766	A	Permitted 11/10/2002.
Volume 17 (This volume is now considered inactive – see Volume 18 Permit.)	RMWSF	S01	1	INTEC – CPP-1617	A/B	Permitted – Effective Date 04/27/2009 See Volume 18 information.
	HCRWSF	N/A	N/A	INTEC – CPP-1619	N/A	Permitted – Effective Date 11/05/2001. DEQ approved closure on 04/04/2005. See Volume 18 information.
	CPP-601/627 Container Storage <b>NOTE:</b> CPP-601/627 unit removed from Volume 17, per NOD from DEQ.	N/A	N/A	N/A	INTEC – CPP-601/627	N/A

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
Volume 18 – Books 1 & 2 (PER-109)	INTEC Storage and Treatment			INTEC		Volume 18 Permitted – Effective Date: 04/27/2009. Permit Revision Date: 08/23/2018. Permit Reapplication transmitted to DEQ on 10/25/2018 (CCNs 322787 & 322788)  * NOTE: DEQ approved administrative closure of TK-NCD-136 on 05/25/2012
	CPP-659/1659 NWCF Container Storage (Rooms 205, 206, 207, 214, 215, 216, 218, 306, 308, 309, 323, 326, 415, 416, 417, 418, 419, 421, 422, 428, and CPP-1659 Contaminated Equipment Maintenance Area)	S01	1	INTEC – CPP-659/1659	A/B	
	CPP-659/1659 NWCF Waste Pile Storage (Rooms 206, 207, 214, 215, 216, 308, 309, 322, 323, 326, 416, and 418)	S03	5	INTEC – CPP-659	A/B	
	NWCF Tank Treatment (SH-NCD-933, SH-NCD-934, UC-NCD-921)	T01	4c	INTEC – CPP-659	A/B	
	NWCF HFSL (VES-NCD-141, VES-NCD-142)	S02, T01	2, 4c	INTEC – CPP-659	A/B	
	NWCF Container Treatment (VES-NCD-138, TK-NCD-139, TK-NCD-137, TK-NCD-136*)	T04	1, 4c, 4j, 4l	INTEC – CPP-659	A/B	
	CPP-666 Container Storage (Rooms 301, 114C, 115, 180, B-4, B-5, B-6, SB-4, SB-8, and FDP Cell)	S01, S02, T04	1, 2, 4a, b, j, l, m	INTEC – CPP-666	A/B	
	FDP Cell Slab Tank Storage (VES-FC-184)	S02				
	FDP Cell Sizing, Repackaging, Compaction, and Absorbent Addition	T04				
	Na/NaK Distillation System Tank Storage (VES-FC-101 and -85A)	S02				
	Na/NaK Distillation System Other Treatment (VES-FC-101 and VES-FC-85A)	T04				
	FDP Cell Na/NaK Deactivation using water (within the ARS) or exposure to air in the cell	T04				
NWCF Holdup and Collection Tanks (VES-NCD-123, VES-NCD-129)	S02, T01	2, 4c	INTEC – CPP-659	A/B		
NWCF Miscellaneous Treatment Unit Scarification/Spalling (Steam Spray Booth & Glovebox [Room 418])	X02	4c, j	INTEC – CPP-659	A/B		
NWCF Miscellaneous Treatment Unit Chemical/Physical Extraction (Steam Spray Booth – Room 418, Decon Cubicle – Rooms 421 and 422, and Decon Cell – Room 308)	X99	4c, j	INTEC – CPP-659	A/B		
CPP-659 – Sizing/Repackaging/Compaction (Rooms 216, 306, 308, 309, 323, 418, 421, 422, 428)	T04	4j, l, m	INTEC – CPP-659	A/B		

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
Continued: Volume 18 – Books 1 & 2 (PER-109)	CPP-659 – Absorbent Addition (Rooms 308, 309, and 418)	T04	4a	INTEC – CPP-659	A/B	
	CPP-659 – Deactivation of Na/NaK using water (immersion and misting/wetting) in Room 308 within the ARS or exposure to air in the cell	T04	4m	INTEC – CPP-659	A/B	
	CPP-659 Room 428 - Macroencapsulation	T04	1, 4i	INTEC – CPP-659	A/B	
	RMWSF – Container Storage and Macroencapsulation Treatment (includes CPP-2725)	S01, T04	1, 4i	INTEC – CPP-1617 INTEC – CPP-2725	A/B	
	HCRWSF	N/A	N/A	INTEC – CPP-1619	N/A	

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status	
Volume 18 – Books 3A and 3B (PER-109)	Storage and Treatment for the RWMC on the INL	S01, X99, X02		RWMC		DEQ approved storage and treatment activities at the RWMC (Volume 18 – Books 3A and 3B) with approval of a Class 2 PMR to the Volume 18 Permit on October 18, 2012. Permit Revision Date: 08/23/2018. Permit Reapplication transmitted to DEQ on 10/25/2018 (CCNs 322787 & 322788)	
	WMF-698 Storage Enclosure	S01	1	WMF-698 Storage Enclosure			
	WMF-1617			WMF-1617		DEQ approved Class 1 PMR revising the closure plan for WMF-1617 with effective date of 12/20/2019	
	Room 104 Equipment Airlock	S01	1		A/B		
	Room 105 Drum Packaging Stations/Area	S01, X99	1, 4j, l, m		A/B		
	Room 106 Utility Area	S01	1		A/B		
	Rooms 101 and 102 Drum Compactor Area	S01	1		A/B		
	Room 103 Drum Compactor/Area	S01, X99,	1, 4b, j, l, m		A/B		
	Retrieval Area	X02	4j, l, m		A/B		
	Retrieval Area Sorting Table	X99	4j, l, m		A/B		
		X99					
	WMF-1619			WMF-1619		DEQ approves a Class 2 PMR to move SRP operations to WMF-1619 with an effective date of 12/17/2019	
	Room 104 Equipment Airlock	S01	1		A/B		
	Room 105 Drum Packaging Stations/Area	S01, X99	1, 4j, l, m		A/B		
	Room 106 Utility Area	S01	1		A/B		
Rooms 101 and 102 and	S01	1,		A/B			
Room 103 Service Bay and Drum Compactor	S01, X99	1, 4b,j, l, m		A/B			
Retrieval Area – Sorting Area	X99	4j, l, m		A/B			
Retrieval Area – Box Transfer Pan Area Treatment	X99	4j, l, m		A/B			
Retrieval Area – Decon Tent	X99	4j, l, m		A/B			
Retrieval Area – Debris Box Containment Pan	X99	4j, l, m		A/B			
Outside Storage Areas (OSA)	S01	1	RWMC	A/B			
Near WMF-1617 – Cargo and Box Storage Area							
Near WMF-1619 – Trailer and Cargo Storage Area							
Near WMF-1621 – Trailer Storage Area							
Near WMF-698 – Trailer Storage Area							
Bridge Area – Trailer Storage Area							
Volume 18 – Book 4 This book is now considered inactive)	Tank Storage at the MFC on the INL - Secondary Sodium System (SSS) Components 7 Evaporators 2 Superheaters (also known as evaporators)	S02	2	MFC-766	A	DEQ approved closure on 12/31/2015	
Volume 19 (This volume is now considered inactive – see Volume 11 Permit.)	WERF Macroencapsulation	N/A	N/A	CITRC – SPERT III	N/A	<b>Incorporated into Volume 11. DEQ approved closure on 01/03/2002.</b>	
	WERF Sizing	N/A	N/A	CITRC – SPERT III	N/A	<b>Incorporated into Volume 11. DEQ approved closure on 09/23/2002.</b>	

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
Volume 20 (This volume is now considered inactive.)	Mercury Retort	N/A	N/A	CITRC	N/A	<b>NOTE:</b> This unit will not be constructed.
Volume 21 (PER-112)	INTEC – Post-Closure Permit at the INTEC  WCF includes: CPP-633 Storage Tanks (WC-100, WC-101, WC-108, and WC-119), CPP-633 WCF HEPA Filter Storage, and CPP-633 WCF Evaporator (EVAP-WC-114)  CPP-601/627/640 Landfill Phase 2	D80	7	INTEC	A/B	Originally, the WCF units were closed as a landfill – 11/20/99. WCF Post-Closure Permit issued with an Effective Date of 10/16/2003. The CPP-601/627/640 Phase 2 Landfill Unit was added to the Volume 21 Permit with the August 25, 2011 DEQ approved revision.  WCF Post-Closure Renewal Permit issued with an Effective Date of 03/14/2014. Contractor Transition Class 1* PMR approved by DEQ with a Revision Date of 06/01/2016.
Volume 22 (PER-114)	Calcine Solids Storage Facility (CSSF)	S02	2	INTEC	A	The Volume 22 Permit was reissued with an Effective Date of 06/26/2017.
Volume 23	INTEC – Calcine Disposition Project (CDP) Storage and Treatment Permit Application	S01, S02, T01, X99	1, 2, 4	INTEC	A	Permit Application submitted to DEQ 11/27/2012.
MFC Consolidated Permit (PER-116)	HWMA/RCRA Consolidated Storage and Treatment Permit for the MFC  RSWF  RSWF Staging/Storage Area (SSA)  North Fenced Area (NFA)  HFEF  SSB  Experimental Fuels Facility (EFF)**  SCMS  TREAT*	S99  S01  S01  S01, T04  S01  N/A  S01, S02, T01, T04  N/A	1  1  1  1, 2, 4a, 4b, 4l, 4m  1  N/A  1, 2, 4a, 4c, 4j, 4l, 4m  N/A	MFC  Building 771  N/A  N/A  Building 785  Building 703  Building 794  Building 793  Building 720	A  A/B  A/B  A/B  A/B  N/A  A/B  N/A	Permitted – Effective Date: 08/16/2004. Modification Date: 09/17/2012. Permit Reapplication/Renewal transmitted to the DEQ on 02/13/2014. DEQ transmitted NOD on 01/09/2015 BEA transmitted NOD responses on 04/09/2015. DEQ issued the draft partial permit for public comment on 06/23/2015. DEQ issued the Final PER-116 Permit on 09/01/2015 with a new Effective Date of 10/01/2015. Current Permit Revision Date:07/29/2019.  <b>*NOTE:</b> DEQ approved administrative closure of the TREAT unit effective 09/11/2007.  <b>**NOTE:</b> DEQ approved closure of the EFF on 04/21/2016.

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
MFC – EBR II Reactor Complex Permit (PER-120) (This volume is now considered inactive – see PER-140 Permit.)	MFC Storage and Treatment Units:			MFC		Permitted - Effective Date: 11/10/2002. Transfer of operational control of these units/permit from Battelle Energy Alliance, LLC (BEA) to CWI – Modification Date: 01/24/2011. Modification Date: 07/13/2012 Permit Expiration Date: 12/02/2012  *NOTE: DEQ approved completion of closure activities for Buildings 793E and 793F as specified in the approved EBR-II Closure Plan on 10/30/2009.
	EBR-II Container Storage Areas (Reactor Building Storage Pit and Reactor Building Storage Holes)	S01	1	Building 767	A	
	EBR-II PSS	S02, T01	2, 4c	Buildings 767 & 795	A	
	EBR-II Secondary Sodium Drain Tank System (SSDTS)	S02, T01	2, 4c	Building 766	A	
	EBR-II Intermediate Heat Exchanger (IHX)	S02, T01	2, 4c	Building 767	A	
Buildings MFC-793E and 793F*	N/A	N/A	Buildings 793E and 793F	N/A		
MFC SPF Permit (PER-140)	HMWA/RCRA Storage and Treatment Permit for the SPF located at the MFC			MFC		Permitted – Effective Date: 08/16/2004. Modification Date: 06/04/2013.  *NOTE: DEQ approved completion of closure activities for the SPF units on 03/07/2014  SSS Piping/Components Unit was incorporated into PER-140 – DEQ approval date: 12/05/2012  Transfer of operational control of the SPF units/permit from BEA to CWI – Modification Date: 02/01/2012.  Permit PER-140 expired on 08/16/2014. Information pertaining to the SSS components (S02) was moved to the Volume 18 Permit - Book 4 of 4 with DEQ’s approval of a Class 2 PMR on 08/05/2014.
	SPF*	N/A	N/A	Buildings 799 and 799A	N/A	
	SSS Piping/Components (consists of SSDTS piping/components located in eastside of building MFC-766)	S02, T01	2, 4c	Building 766	A	
AMWTP Permit (PER-153)	AMWTP HWMA/RCRA Permit	X02, X99, S01, T04	1, 4a, 4b, 4c, 4l	RWMC	A	Permitted – Effective Date 06/04/2008. Contractor Transition Class 1* PMR approved by DEQ with a Revision Date of 06/01/2016. Class 1* PMR for use of Magnesium Oxide transmitted to DEQ on 06/21/2018. PMR approved by DEQ with a Revision Date of: 06/27/2018.  AMWTP Reapplication transmitted to DEQ on 12/05/2017. DEQ issued Administrative
	Waste Storage Facility (WSF) [WMF-628 through WMF-635]	S01, T04				
	WMF-610 (SWEPP)	S01, T04				
	WMF-676 Drum Repack System and Box Line Units SCW Glovebox System, Drum Waste Repackaging Glovebox, and Box Lines,	S01, T04				

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
	Supercompactor Unit WMF-636 Pad 2 Container Storage Unit AMWTP Outside Storage Area	X02, T04, X99 X99 S01, T04 S01, T04				Completeness on 01/29/2017. Fluor Idaho received a NOD from DEQ 05/07/2018. Fluor Idaho Response to NOD transmitted to DEQ on 6/20/2018. DEQ issues Permit Renewal with an Effective Date of: 05/20/2019.  DEQ approves a Class 2 PMR with effective date of 10/18/2019
N/A	ARVFS Storage Unit	N/A	N/A	ARVFS	N/A	Closed 09/12/1996.
N/A	CPP-601 D Cell Storage	N/A	N/A	INTEC – CPP-601	N/A	DEQ approved completion of closure activities on 01/05/2005.
N/A	CPP-603 Storage Tank (VES-SFE-106)	N/A	N/A	INTEC – CPP-603	N/A	Interim Status terminated. DEQ approved closure on 05/12/2009.
N/A	CPP-627 MCC	N/A	N/A	INTEC – CPP-627	N/A	DEQ approved closure on 07/20/1999.
N/A	CPP-633 WCF Evaporator	D80	7	INTEC – CPP-633	A/B	Closed 11/02/1999 as a landfill. Post Closure Permit – Effective Date 10/16/2003, Revision Date 06/26/2007. See Volume 21 information.
N/A	CPP-633 WCF HEPA Filter Storage	D80	7	INTEC – CPP-633	A/B	Closed 11/02/1999 as a landfill. Post Closure Permit – Effective Date 10/16/2003, Revision Date 06/26/2007. See Volume 21 information.
N/A	CPP-633 WCF Storage Tanks	D80	7	INTEC – CPP-633	A/B	Closed 11/02/1999 as a landfill. Post Closure Permit – Effective Date 10/16/2003, Revision Date 06/26/2007. See Volume 21 information.
N/A	CPP-640 Headend Holdup Storage Tanks	N/A	N/A	INTEC – CPP-640	N/A	DEQ approved closure on 06/12/2008.
N/A	CPP-663 Hot Shop Storage Tank	N/A	N/A	INTEC – CPP-663	N/A	DEQ approved closure on 08/22/1994.
N/A	CPP-666 FAST Storage and Treatment Tanks	N/A	N/A	INTEC – CPP-666	N/A	DEQ approved closure on 05/13/1996.

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
N/A	Evaporator at TAN-607A	N/A	N/A	TAN-607	N/A	DEQ approved closure on 02/25/1997.
N/A	Evaporator at TAN-681	N/A	N/A	TAN-681	N/A	DEQ approved closure on 12/20/1996.
N/A	HTRE-3 Assembly	N/A	N/A	EBR-1	N/A	DEQ approved closure on 01/31/2000.
N/A	INTEC New Tank Farm (proposed)	N/A	N/A	INTEC	N/A	DEQ approved administrative closure on 10/25/2006.
N/A	ICPP Percolation Ponds	N/A	N/A	INTEC	N/A	DEQ approved closure on 11/29/1995.
N/A	INTEC TFF <b>NOTE:</b> The CPP-604 Tank Farm Tanks (VES-WM-100, VES-WM-101, and VES-WM-102) are permitted as feed, storage, and bottoms tanks in the Volume 14 – ILWMS Treatment and Storage Permit.	S02	2	INTEC	A	Interim Status. <b>NOTE:</b> Phase IV- TFF Tanks (VES-WM-103 through VES-WM-106 and VES-WM-180 through VES-WM-186) received closure approval from DEQ on 10/05/2009 and therefore are no longer regulated as interim status units.  Tanks WM-187, WM-188, WM-189 and WM-190 are interim status tanks undergoing HWMA/RCRA closure.
N/A	IET Mercury Storage	N/A	N/A	TAN	N/A	DEQ approved closure on 12/20/1996.
N/A	ILTSF Pad 1	N/A	N/A	RWMC	N/A	DEQ approved closure on 10/24/1994.
N/A	PWTU	N/A	N/A	CITRC/TAN	N/A	DEQ approved closure on 07/08/1999.
N/A	PREPP Incinerator	N/A	N/A	TAN	N/A	DEQ approved closure on 03/07/2000.
N/A	PREPP Waste Stabilization	N/A	N/A	TAN	N/A	DEQ approved closure on 03/07/2000.
N/A	RSTA	N/A	N/A	ARA-IV	N/A	DEQ approved closure on 10/24/1994.
N/A	SMC Waste Calciner, Stabilization & Storage	N/A	N/A	TAN-681	N/A	DEQ approved closure on 09/24/1997.



**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
N/A	TAN-647 Sodium Storage	N/A	N/A	TAN-647	N/A	DEQ approved closure on 06/13/1997.
N/A	TAN-647 Waste Storage Facility	N/A	N/A	TAN-647	N/A	DEQ approved closure on 01/09/2004.
N/A	TAN-726 Chromate Water Storage	N/A	N/A	TAN-726	N/A	DEQ approved closure on 12/26/1995.
N/A	TAN-726A Chromate Water Treatment Unit	N/A	N/A	TAN-726A	N/A	DEQ approved closure on 12/26/1995.
N/A	TRA-610 Lead Storage	N/A	N/A	ATR Complex	N/A	DEQ approved closure on 10/27/1995.
N/A	ASB-II (TSA-2)	N/A	N/A	RWMC	N/A	DEQ approved closure on 04/16/1999.
N/A	Certified & Segregated (C&S) Building (TSA-3)	N/A	N/A	RWMC	N/A	DEQ approved closure on 04/16/1999.
N/A	TSA-RE RMF	N/A	N/A	RWMC	N/A	DEQ terminated interim status on 07/09/2009.
N/A	WEDF Storage	N/A	N/A	CITRC – SPERT II	N/A	DEQ approved closure on 12/02/1997.
N/A	WERF Drum Feed/Blending	N/A	N/A	CITRC – SPERT III	N/A	DEQ approved completion of closure activities on 09/30/2003.
N/A	WERF Waste Storage/Feed Tanks	N/A	N/A	CITRC	N/A	DEQ approved closure on 05/16/2000.
N/A	MWSF Repackaging (Room 102 of PER-613)	N/A	N/A	CITRC	N/A	DEQ approved completion of closure activities on 05/10/2004.
N/A	WERF Repackaging (Room B102 of PER-609)	N/A	N/A	CITRC	N/A	DEQ approved completion of closure activities on 09/30/2003.
N/A	WERF Waste Stabilization - includes: Drum Tumbler (Room B106 of PER-609) Double Planetary Mixer (Room 109 of PER-609)	N/A	N/A	CITRC	N/A	DEQ approved completion of closure activities on 09/30/2003.

**Table 4.** (continued)

Volume Number/ Name	Waste Management Process*	Process Code(s)	Process Type(s)	Location	Waste Type(s)	Unit Status
N/A	NODA Treatment	N/A	N/A	North of CFA	N/A	DEQ approved closure on 02/25/1997.

\* For the purposes of this work plan, the term “Waste Management Process” is used to designate a functional grouping of one or more hazardous waste management units as defined in Title 40 Code of Federal Regulations (CFR) Part 260.10.

**NOTE:** HWMA/RCRA Permit Volumes (and their associated information) that have received closure approval from the DEQ or that are no longer needed, due to changes in permitting strategy, have been shaded gray.

**Process Codes**

- S01 Container Storage
- S02 Tank Storage
- S03 Waste Pile Storage
- S99 Other Storage
- T01 Tank Treatment
- T02 Surface Impoundment Treatment
- T03 Incineration
- T04 Other Treatment
- X02 Miscellaneous Treatment Unit/Mechanical Processing
- X99 Miscellaneous Treatment Unit/Other Subpart X

**Process Types**

- 1. Container Storage
- 2. Tank Storage
- 3. Incineration
  - a. controlled air
  - b. rotary kiln
- 4. Treatment
  - a. stabilization/solidification
  - b. volume reduction – shredding/compacting/sizing
  - c. chemical treatment
  - d. thermal treatment
  - e. blending
  - f. evaporation
  - g. ion exchange
  - h. surface impoundment treatment
  - i. macroencapsulation
  - j. physical treatment (debris)
  - k. microencapsulation
  - l. repackaging
  - m. other
- 5. Waste Pile
- 6. Containment Building
- 7. Landfill

**Waste Types**

- A. Mixed – means any waste that is both radioactive and hazardous (hazardous as defined in 40 CFR 261).
- B. Hazardous – waste as defined in 40 CFR 261.

**NOTE:** These definitions are intended to provide a basic understanding, and not intended to be all-inclusive.

**Appendix A**

**Descriptions of INL**

**HWMA/RCRA**

**Waste Management Processes**

## Descriptions of INL HWMA/RCRA Waste Management Processes

### HWMA/RCRA UNITS LOCATED AT THE MFC

#### PER-116 Permitted Units (under operational control of BEA)

##### HFEF

The HFEF consists of five hazardous waste management unit areas located on the main floor and/or the high bay area in the HFEF, Building 785. These units are used for storage (S01), verification, repackaging, absorption of free liquids, neutralization, and solidification (T04) of characteristic and listed mixed waste prior to final disposition. The PER-116 Permit was reissued with a new effective date of 10/01/2015.

##### RSWF

The RSWF is a controlled-access, fenced, 4-acre area located 0.5 miles northeast of EBR-II, designated as Building 771. The facility is permitted to store (S99) characteristic mixed waste prior to treatment and/or final disposal. The PER-116 Permit was reissued with a new effective date of 10/01/2015.

##### SCMS

The SCMS consists of a treatment system and ancillary equipment located in Buildings 793, 793C, and 793G. The SCMS wash water vessel is used to store (S02) and treat (T01) sodium, NaK, corrosive and toxic metal hazardous and mixed waste prior to final disposition. The SCMS container storage (S01) and treatment (T04) areas are used for container storage, verification, repackaging, and/or treatment of characteristic waste, toxic metal/organic waste, and listed waste. The PER-116 Permit was reissued with a new effective date of 10/01/2015.

##### SSB

The SSB is a controlled-access, metal building located directly west of the Outside Radioactive Storage Area (ORSA), formerly known as the RSSF, and is designated Building 703. The facility is used to store (S01) ignitable, reactive, toxic metal, toxic organic, and listed hazardous and mixed waste, prior to treatment and final disposition. The PER-116 Permit was reissued with a new effective date of 10/01/2015.

##### RSWF Storage Area (SSA)

The RSWF SSA is an asphalt pad area, 200 ft long by 100 ft wide. The area is enclosed entirely by a 9-ft chain link fence. A gate off the main access road allows vehicles to enter or exit from the southeast side, and with its double gates vehicles may also enter or exit onto the main access road at the northeast side. The RSWF SSA is used for RHMW and HW/MW container storage of solid debris only, no free liquids. The facility is used to store (S01) ignitable, reactive, toxic metal, toxic organic, and listed hazardous and mixed waste, prior to treatment and final disposition. The RSWF SSA has been permitted for storage since October 2017 with a Permit effective date of 10/01/2015.

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**Descriptions of INL HWMA/RCRA Waste Management Processes**North Fenced Area (NFA)

The NFA is an asphalt pad area, 200 ft long by 100 ft wide. The area is enclosed entirely by a 9-ft chain link fence. Two gates off the main access road allow vehicles to enter or exit from the southwest side. The NFA is used for RHMW and HW/MW container storage of solid debris only, no free liquids. The facility is used to store (S01) ignitable, reactive, toxic metal, toxic organic, and listed hazardous and mixed waste, prior to treatment and final disposition. The NFA has been permitted for storage since October 2017 with a Permit effective date of 10/01/2015.

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**Descriptions of INL HWMA/RCRA Waste Management Processes**

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**HWMA/RCRA UNITS LOCATED AT THE RWMC (AMWTP and ARP)****Units to Operate under Interim Status (ISD-TSA-06)**TSA Interim Status Unit

The TSA-RE at AMWTP (WMF-636) is a weather-tight metal building over hazardous waste container storage (S01) units TSA Pad R and Pad 1. The TSA-RE building covers the waste stack, berms, and sloped earth. TSA-1 and TSA-R are currently permitted for liquid absorption (T04), decanting (T04), neutralization (T04), sizing (T04), and repackaging (T04). These units will operate under interim status until closure.

**PER-153 Permitted Units**AMWTP HWMA/RCRA Units

The AMWTP HWMA/RCRA Permit consists of the WSF [WMF-628 through WMF-635], WMF-610, WMF-676, WMF-636 Pad 2, and the AMWTP Outside Storage Area. The WSF, WMF-610, and WMF-676 are permitted for storage (S01), various miscellaneous treatment (T04 and X99), and mechanical processing (X02). WMF-636 Pad 2 and the AMWTP Outside Storage Area are currently permitted for container storage (S01) and treatment (T04). The AMWTP Permit was reissued with an effective date of 05/20/2019.

**PER-109 Permitted Units**WMF-698

WMF-698 is an ARP storage enclosure and is a tension-membrane building. The building is permitted for container storage (S01) under the Volume 18 Permit – Books 3A & 3B. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

WMF-1617

WMF-1617 (also known as ARP V) is a free standing single large tension-membrane building which covers the exhumation footprint in Pit 9. Container storage (S01), miscellaneous storage and treatment (X99), and mechanical treatment (X02) are permitted within specific locations of this building under the Volume 18 Permit – Books 3A & 3B. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

WMF-1619

WMF-1619 (also known as ARP VII) is a free standing single large tension-membrane building which covers the exhumation footprint of a portion of Pit 10. Container storage (S01) and miscellaneous storage and treatment (X99) are permitted within specific locations of this building under the Volume 18 Permit – Books 3A & 3B. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

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**Descriptions of INL HWMA/RCRA Waste Management Processes**Outside Storage Areas

Outside Storage Areas located at/near WMF-698, WMF-1617, WMF-1619, WMF-1621 and the bridge (between RWMC and AMWTP area) are external storage areas to the building listed for the storage of containers (S01) that contain waste treated in WMF-1617 or WMF-1619 and are ready for transport from ARP back to AMWTP. These areas are permitted for container storage (S01) under the Volume 18 Permit – Books 3A & 3B. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

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**Descriptions of INL HWMA/RCRA Waste Management Processes**

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**HWMA/RCRA UNITS LOCATED AT THE INTEC****Units to Operate under Interim Status/Consent Order (TSA-4)**INTEC TFF

The INTEC TFF stores (S02) liquid mixed waste from operational activities at the INTEC. The INTEC TFF currently consists of tanks VES-WM-187 through VES-WM-190. These remaining INTEC TFF tanks are still covered under the NON/CO. Specific cease use dates for these tanks are spelled out in the NON/CO.

**PER-109 Permitted Units**NWCF Debris Treatment Processes

The NWCF Debris Treatment Processes are used treat mixed waste debris in CPP-659/1659. These processes consist of the following units: HEPA Filter Leaching System - tanks VES-NCD-141 and VES-NCD-142 used for storage (S02) and treatment (T01); sinks SH-NCD-933 and SH-NCD-934 used for treatment (T01); portable soak tanks - VES-NCD-138, TK-NCD-139, and TK-NCD-137 used for container treatment (T04); ultrasonic cleaner UC-NCD-921 used for treatment (T01); decon cubicles – rooms 421 and 422 used for chemical/physical extraction (X99); decon cell – room 308 used for chemical/physical extraction (X99), and steam spray booth – room 418, used for scarification/spalling (X02) and chemical/physical extraction (X99). These units are permitted as part of Volume 18. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

CPP-659 Sizing, Compaction, and Repackaging

Sizing, compaction, and repackaging (T04) of debris waste takes places in CPP-659, Rooms 216, 306, 308, 309, 323, 418, 421, 422, and 428. These units are permitted as part of Volume 18. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

CPP-659 Absorbent Addition

The addition of liquid absorbent (T04) to wastes that have liquids greater than acceptable levels takes place in CPP-659, Rooms 308, 309 and 418. These units are permitted as part of Volume 18. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

CPP-659 Other Treatment

Deactivation (T04) of Na/NaK using water (immersion and misting/wetting) in CPP-659 Room 308 within the ARS or exposure to air in the cell. Macroencapsulation (T04) in CPP-659 Room 428. These units are permitted as part of Volume 18. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

Holdup and Collection Tanks

This unit consists of two storage (S02) and treatment (T01) tanks – VES-NCD-123 (holdup tank) and VES-NCD-129 (collection tank). These tanks are permitted as part of Volume 18. The Volume 18 Permit was reissued with an effective date of 04/27/2009.



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**Descriptions of INL HWMA/RCRA Waste Management Processes**

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CPP-659/1659 Storage

These units consist of container storage (S01) and waste pile storage (S03) areas in CPP-659/-1659. Container storage is permitted in CPP-659 rooms 205, 206, 207, 214, 215, 216, 218, 306, 308, 309, 323, 326, 415, 416, 417, 418, 419, 421, 422, 428, and the Contaminated Equipment Maintenance area in CPP-1659. Waste pile storage is permitted in CPP-659 rooms 206, 207, 214, 215, 216, 308, 309, 322, 323, 326, 416, and 418. Containerized solid wastes and debris are stored in these units prior to treatment in the HFLS, or prior to other treatment. These units are permitted as part of Volume 18. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

CPP-666 Container Storage, Tank Storage and Other Treatment

These units consist of container storage (S01), tank storage (S02), and treatment (T04) unit(s) located at Building CPP-666. Container storage units in CPP-666 are located in the FDP cell and Rooms 301, 114C, 115, 180, B-4, B-5, B-6, SB-5, and SB-8. Treatment consists of sizing/repackaging/compaction and absorbent addition in the FDP Cell. Additionally, other treatment (T04) consists of distillation and deactivation of Na/NaK in CPP-666 Room SB-8 and within the FDP Cell – Argon Repackaging Station and exposure to air in the cell. These units are permitted as part of Volume 18. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

CPP-666 Slab Tank

The CPP-666 Slab Tank (VES-FC-184) storage unit is to be used for storage (S02) of liquids generated during operational activities that collect in the FDP Cell sump. This unit is permitted as part of Volume 18. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

CPP-1617 RMWSF

This unit is a container storage (S01) area for radioactive, hazardous, and mixed hazardous waste, prior to waste treatment and disposal. Containers are located within a fenced area that surrounds Building CPP-1617. This unit is permitted as part of Volume 18. Additionally, other treatment (T04) – Macroencapsulation is permitted within the CPP-1617 fenced facility. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

CPP-2725

This unit is a tent/weather enclosure which is used as an annex/satellite facility of the RMWSF. This location is for container storage (S01) of hazardous/mixed wastes and macroencapsulation (T04) debris waste and radioactive lead solids. The Volume 18 Permit was reissued with an effective date of 04/27/2009.

**PER-111 Permitted Units**IWTU Storage and Treatment Units

The IWTU Storage and Treatment Units are located in CPP-1696. The units will be used to store and treat sodium bearing waste at the INTEC. The IWTU consists of the following permitted units:

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**Descriptions of INL HWMA/RCRA Waste Management Processes**

container storage units (S01) vault storage area and vault staging area; tank storage units (S02) VES-SRC-131, VES-SRC-190, VES-SRC-191, TK-SRE-196, and TK-SRH-141; tank treatment unit (T01) VES-SRC-131; and other subpart X (steam reforming) treatment units (X99) including VES-SRC-140 and VES-SRC-160. These units are permitted as part of Volume 14. The Volume 14 Permit was reissued with an effective date of 09/05/2019.

CPP-604 Process Condensate Collection Tanks

This unit consists of three tanks – VES-WL-106, VES-WL-107, and VES-WL-163 that are used for storage (S02) and treatment (T01). These tanks receive condensate from the PEWE, prior to the LET&D Evaporators/Fractionators. These tanks are permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-604 PEWE Units

This unit consists of two evaporators – EVAP-WL-129 and EVAP-WL-161 that are used for storage (S02) and treatment (X99). After waste is treated in this unit, it is transferred to the INTEC TFF or the LET&D Facility. These evaporators are permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-604 Bottoms Collection Tanks

This unit consists of two tanks – VES-WL-101 and VES-WL-111 that are used for storage (S02) and treatment (T01) of liquid waste, prior to being treated in the PEWE. These tanks are permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-604 Surge Tank for VES-WL-133

This unit consists of one tank – VES-WL-102 that is used for the storage (S02) and treatment (T01) of liquid waste, prior to being treated in the PEWE. The tank is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019

CPP-604 Evaporator Feed Sediment Tank

This unit consists of one tank – VES-WL-132 that functions as a settling basin for solids. The tank is permitted for storage (S02) and treatment (T01) of liquid waste as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-604 Evaporator Feed Collection Tank

This unit consists of one tank – VES-WL-133 that is used for the storage (S02) and treatment (T01) of liquid waste, prior to the waste being treated in the PEWE. The tank is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-604 Evaporator Head Tank

This unit consists of one tank – VES-WL-109 that is used for the storage (S02) of PEWE feed solution prior being sent to EVAP-WL-161. This unit is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

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**Descriptions of INL HWMA/RCRA Waste Management Processes**CPP-604 Process Condensate Surge Tanks

This unit consists of two tanks – VES-WL-131 and VES-WL-134 that are used for the storage (S02) of condensate from the PEW Evaporators. These units are permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-604 Off-Gas Condensate Knock Out Tank

This unit consists of one tank – VES-WL-108 that is used for the storage (S02) of condensate from the PEW Evaporators. This unit is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-604 PEWE Process Waste Liquid Tanks

This system consists of eight tanks – VES-WL-135, VES-WL-136, VES-WL-137, VES-WL-138, VES-WL-139, VES-WL-142, VES-WL-144, and VES-WL-150 that are used to store (S02) hazardous waste liquid from CPP-604, CPP-649, and associated valve boxes. These tanks are permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-604 Tank Farm Tanks

This unit consists of three tanks – VES-WM-100, VES-WM-101, and VES-WM-102 tanks that are used for the storage (S02) and treatment (T01) of mixed waste prior to transfer to the PEWE, ETS, or the TFF. These tanks are permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-1618 LET&D Acid Fractionators

This unit consists of two evaporators, also referred to as fractionators – FRAC-WLL-170 and FRAC-WLK-171 that are used to treat (X99) the condensate from the PEW Evaporators. Additionally, this unit consists of two waste storage tanks (S02) – VES-WLL-170 and VES-WLK-171. These tanks are permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-1618 LET&D Nitric Acid Recycle Tanks System

This unit consists of two tanks – VES-NCR-171 and VES-NCR-173 that are used for storage (S02) of recycled nitric acid from the LET&D prior to the nitric acid being used for decon/debris treatment activities or being sent to the TFF. These units are permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-1618 Acid Fractionator Waste Feed Head Tank

This unit consists of one tank – VES-WLK-197 that is used for the storage (S02) of LET&D feed solution. This tank is the gravity head feed tank to the LET&D Fractionators. This unit is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

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**Descriptions of INL HWMA/RCRA Waste Management Processes**CPP-1618 Acid Fractionator Bottoms Tank

This unit consists of one tank – VES-WLL-195 that is used for the storage (S02) of acid reclaimed in the LET&D process. This unit is permitted as part of the ILWMS – Volume 14, issued with an effective date of 09/05/2019.

CPP-659 NWCF Evaporator Unit

The NWCF Evaporator Unit, EVAP-NCC-150, which includes VES-NCC-150, HE-NCC-350, and HE-NCC-351 stores (S02) and condenses/treats (X99) liquid waste to reduce the volume of liquid waste stored in the TFF. This unit is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-659 Blend/Hold Tanks

The Blend/Hold Tanks, which includes tanks VES-NCC-101, VES-NCC-102, and VES-NCC-103 are part of the ETS. These tanks store (S02) and treat (T01) waste. This unit is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-659 Process Off-gas Condensate System

The Process Off-gas Condensate System which includes tanks VES-NCC-108, VES-NCC-116, and VES-NCC-136 are part of the ETS. These tanks store (S02) and treat (T01) (VES-NCC-108 is only permitted for treatment). This unit is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-659 Fluoride Hot Sump Tank

The Fluoride Hot Sump tank (VES-NCC-119) is part of the ETS. This tank is used for storage (S02) and treatment (T01) of waste. This unit is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-659 Non-Fluoride Hot Sump Tank

This unit consists of VES-NCC-122 and is part of the ETS. The unit is used for storage (S02) and treatment (T01) of waste. This unit is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

CPP-659 Constant Head Feed Tank

This unit consists of VES-NCC-152 and is part of the ETS. The unit is used for storage (S02) of waste. This unit is permitted as part of the ILWMS – Volume 14, reissued with an effective date of 09/05/2019.

**PER-114 Permitted Units**CSSF

The CSSF stores (S02) calcined waste from the NWCF calciner. The DEQ issued the CSSF Part B Permit (Volume 22), with an effective date of 11/09/2006. The Volume 22 Permit was reissued with an effective date of 06/26/2017. The CSSF consists of the following:

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**Descriptions of INL HWMA/RCRA Waste Management Processes**

- 4 tanks (CPP-729 Bin Set Number 1)
- 7 tanks (CPP-742 Bin Set Number 2)
- 7 tanks (CPP-746 Bin Set Number 3)
- 3 tanks (CPP-760 Bin Set Number 4)
- 7 tanks (CPP-765 Bin Set Number 5)
- 7 tanks (CPP-791 Bin Set Number 6)
- 7 tanks (CPP-795 Bin Set Number 7)

**PER-112 Post-Closure Permitted Units****CPP-633 WCF**

This unit was originally closed as a landfill. The landfill was then subsequently permitted under the Volume 21 - INTEC HWMA/RCRA Post-Closure Permit with a Permit Renewal effective date of 03/14/2014.

**CPP-633 WCF Evaporator**

This unit consisted of an evaporator unit (EVAP-WC-114) and its ancillary piping, which evaporated (T04) liquid mixed waste generated from fuel reprocessing activities at the INTEC. Closure was approved by the DEQ on 11/02/99, with the caveat that the substantive postclosure care requirements for the WCF be addressed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) applicable or relevant and appropriate requirements (ARARs) under the final Record of Decision (ROD) and Post-ROD Monitoring Plan. The substantive postclosure care requirements could not be negotiated; therefore, the DEQ requested that a RCRA WCF Post-Closure Permit Application be developed, which was subsequently submitted to the DEQ. The DEQ then issued the Volume 21 – INTEC HWMA/RCRA Post-Closure Permit with a Permit Renewal effective date of 03/14/2014.

**CPP-633 WCF Storage Tanks**

This unit consisted of four storage (S02) tanks (VES-WC-100, VES-WC-101, VES-WC-108, and VES-WC-119), located in Building CPP-633, at the INTEC. Closure was approved by the DEQ on 11/02/99, with the caveat that the substantive postclosure care requirements for the WCF be addressed under the CERCLA ARARs under the final ROD and Post-ROD Monitoring Plan. The substantive postclosure care requirements could not be negotiated; therefore, the DEQ requested that a RCRA WCF Post-Closure Permit Application be developed, which was subsequently submitted to the DEQ. The DEQ then issued the Volume 21 INTEC – HWMA/RCRA Post-Closure Permit with a Permit Renewal effective date of 03/14/2014.

**CPP-633 WCF HEPA Filter Storage**

This was a waste pile storage unit (S03), for storage of spent HEPA filters from the WCF. The unit was located in Building CPP-633, at the INTEC. Closure was approved by the DEQ on 11/02/99, with the caveat that the substantive postclosure care requirements for the WCF be addressed under the CERCLA ARARs under the final ROD and Post-ROD Monitoring Plan. The substantive postclosure care requirements could not be negotiated; therefore, the DEQ requested that a RCRA WCF Post-Closure Permit Application be developed, which was subsequently submitted to the DEQ. The DEQ then issued the

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**Descriptions of INL HWMA/RCRA Waste Management Processes**

Volume 21 INTEC – HWMA/RCRA Post-Closure Permit with a Permit Renewal effective date of 03/14/2014.

CPP-601/627/640 Landfill

The CPP-601/627/640 facility was part of the spent fuel reprocessing complex, which was used to recover enriched uranium for reuse. The facility was closed under approved HWMA/RCRA closure plans. The HWMA/RCRA Post-Closure Plan for CPP-601/627/640 Landfill – Phase 2 was approved by the DEQ on September 30, 2010. Effective August 25, 2011, these tanks were regulated under the INTEC Post-Closure Permit (Volume 21) - with a Permit Renewal effective date of 03/14/2014.

## **HISTORICAL CLOSURE INFORMATION AT THE INL**

### **ARVFS – Sodium-Potassium Storage**

This was a container storage (S01) unit located approximately one mile east of Lincoln Boulevard, about two and one half miles northeast of the Naval Reactors Facility (NRF). It was an underground bunker, containing two stainless-steel drums and two carbon-steel containers, within a metal dumpster. Closure was approved by the DEQ on 09/12/1996.

### **ARVFS – Chemical Treatment Unit**

This chemical treatment unit located approximately one mile east of Lincoln Boulevard, about two and one half miles northeast of the NRF in an underground bunker. The unit was used to treat NaK. The unit was closed 09/09/1994.

### **ASB II – (TSA-2)**

This container storage (S01) unit was the smaller of two air-supported, storage buildings located at the RWMC. It was constructed on an asphalt pad, which covered the TSA, Pad 2 (or TSA-2). Closure was approved by the DEQ on 04/16/1999.

### **C&S Building – (TSA-3)**

This container storage (S01) unit was the larger of two air-supported, storage buildings located at the RWMC (Building WMF-612). It was constructed with steel reinforcement, on an asphalt pad, over a portion of the TSA, Pad 3 (or TSA-3). Closure was approved by the DEQ on 04/16/1999.

### **CPP-601 D Cell Storage**

This was a container storage unit (S01), located in Building CPP-601 at the INTEC. Closure was approved by the DEQ on 01/05/2005.

### **CPP-601 Deep Tanks**

This unit consisted of four tanks – VES-WG-100, VES-WG-101, VES-WH-100, and VES-WH-101 that were used for storage (S02) and treatment (T01). These tanks received waste primarily from laboratories and operations in CPP-601, CPP-602, and CPP-684, located at the INTEC. The waste was sent to the PEWE Feed/Storage and Treatment Tanks prior to evaporation in the PEWE. These tanks were permitted as part of the ILWMS – Volume 14. Phase 1 closure certification of these tanks was approved by the DEQ on 2/19/2010. These tanks are now regulated under the HWMA/RCRA Closure Plan for the CPP-601/627/640 Landfill Phase 2 (Rev. 2, September 2010), which was approved by the DEQ on 09/30/2010.

### **CPP-603 Storage Tank (VES-SFE-106)**

This unit was a tank storage unit (S02), located at the area by Building CPP-603 at the INTEC. Closure was approved under interim status by the DEQ on 05/14/2009.

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**Historical Closure Information at the INL**CPP-627 MCC

This was a container storage unit (S01), located in Building CPP-627, at the INTEC. Administrative closure was approved by the DEQ on 07/20/1999.

CPP-640 Headend Holdup Storage Tanks

This unit consisted of three storage (S02) tanks (VES-HW-100, VES-HW-101, VES-HW-102), which were used in the fuel dissolution process at the INTEC. Closure was approved by the DEQ on 06/12/2008.

CPP-641 Westside Holdup Storage Tanks

This unit consisted of three storage tanks – VES-WL-103, VES-WL-104, and VES-WL-105 that are used for storage (S01) and treatment (T01) of liquid wastes prior to evaporation in the PEWE or transferred to the TFF. These tanks were permitted as part of the ILWMS – Volume 14. Closure was approved by the DEQ on 04/17/2009.

CPP-659 NWCF Calciner

The constant head feed tank (VES-NCC-104) was used to store (S02) waste prior to being treated in the calciner. The calciner (VES-NCC-105) was used to treat (T04) liquid mixed waste from the TFF by changing the waste form from liquid to calcine. The treated waste was then sent to the CSSF. Closure was approved by the DEQ on 12/14/2004.

CPP-663 Hot Shop Storage Tank

This unit was a storage tank (VES-MA-101) located in Building CPP-663, at the INTEC. This tank (S02) collected solvent waste from the hot shop. Closure was approved by the DEQ on 08/22/1994.

CPP-666 FAST Storage and Treatment Tanks

This unit consisted of two storage (S02) and treatment (T01) tanks (VES-FA-141 and VES-FA-142), located in Building CPP-666, at the INTEC. Closure was approved by the DEQ on 05/13/1996.

CPP-1619 HCRWSF

This unit was a storage building with a waste loading/unloading dock. The unit served as a container storage (S01) area for RCRA hazardous and mixed waste containers prior to shipment to another permitted treatment, storage, or disposal facility. DEQ acknowledged completion of closure activities, as specified in the approved closure plan, on 04/04/2005.

EBR-II Storage and Treatment Units

These units consisted of: container storage areas - Storage Pit and Storage Holes in building MFC-767; Primary Sodium System – tank storage and tank treatment in building MFC-767 and MFC-795; Secondary Sodium Drain Tank System – tank storage and tank treatment in building MFC-766, Intermediate Heat Exchanger – tank storage and tank



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**Historical Closure Information at the INL**

treatment in Building MFC-767; and container storage areas in buildings MFC-793E and MFC-793F. DEQ approved completion of closure activities in stages - 10/30/2009 for buildings MFC-793E & F and 09/20/2012 for the remaining units. The EBR-II Permit (PER-120) expired on 12/05/2012.

**EBR-II Primary Tank Shutdown Coolers and Primary Purification NaK Coolant Loop**

The DEQ approved completion of closure activities on 02/14/2002.

**EBR-II SSPS (Cold Trap)**

The DEQ approved completion of closure activities on 02/14/2002.

**EFF (formerly known as the CESB)**

The EFF consisted of a container storage unit (S01) and container treatment unit (T04) located in Building 794. The EFF was used to store and treat characteristic and listed hazardous and mixed waste prior to final disposition. Closure was approved by the DEQ on 04/21/2016.

**Evaporators at TAN-607A and TAN-681**

These units were classified as thermal treatment units (T04). The units dried the waste in the drum in which the waste was disposed. TAN-607A closure was approved by the DEQ on 02/25/97. Closure for TAN-681 was approved by the DEQ on 12/20/1996.

**HCWHNF**

This unit consists of two storage (S02) and treatment (T01) tanks (VES-HBF-103 and VES-HBF-104), designed to treat liquid waste from the pilot plant area storage tank (VES-HBF-105). Closure was approved by the DEQ on 09/18/2000.

**HWSF**

This unit was a container storage (S01) area for hazardous waste, located at CFA, Building CFA-637. Closure was approved by the DEQ on 02/04/1997.

**HTRE-3 Assembly**

The HTRE-3 Assembly (S01) was located on a concrete pad northeast of EBR-I. Closure was approved by the DEQ on 01/31/2000.

**ICPP Percolation Ponds**

This unit consisted of two percolation ponds (T02), located outside the INTEC fenced area. Closure was approved by the DEQ 11/29/1995.

**INTEC New Tank Farm (proposed)**

This interim status unit was proposed but never constructed. DEQ approved administrative closure of this unit on 10/25/2006.

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**Historical Closure Information at the INL**INTEC Tank Farm Facility

Closure of Phases I-IV of the INTEC TFF encompassed eleven interim status tanks: VES-WM-180, VES-WM-181, VES-WM-182, VES-WM-183, VES-WM-184, VES-WM-185, VES-WM-186, VES-WM-103, VES-WM-104, VES-WM-105, and VES-WM-106). DEQ approved closure of these tanks on 10/05/2009.

IET Mercury Storage

This unit was a container storage (S01) unit, located on a concrete pad at the south end of the IET Facility. Closure was approved by the DEQ on 12/20/1996.

ILTSF – Pad 1

The ILTSF – Pad 1 was located at the RWMC, consisting of container storage (S01). Closure was approved by the DEQ on 10/24/1994.

ILTSF – Pad 2

This unit consisted of a container storage (S01) unit that consists of carbon-steel cylindrical vaults that have been installed vertically in the ground and encased in sand-cement grout. This unit is located in the southwest corner of the TSA. The DEQ approved completion of closure activities on 11/12/2001.

MFC-793E and 793F

This unit consisted of metal storage buildings positioned on concrete pads, located south of SCMS building 793C. These buildings were used for the storage of HW/MW. DEQ approved completion of closure activities on 10/30/2009.

MWSF

The MWSF (Building PER-613) consisted of a container storage (S01) unit within the basement (Bays 1 – 4) and Room 101 on the main floor of Building PER-613. The unloading area was located in the high bay on the main floor. The DEQ approved completion of closure activities on 04/13/2004.

MWSF PSUs

This was a container storage (S01) unit consisting of multiple cargo containers. The cargo containers were located on the asphalt pad to the northeast of the MWSF building (PER-613). The DEQ approved completion of closure activities on 04/13/2004.

MWSF Repackaging

Waste repackaging (T04) was conducted in Room 102, of the MWSF. Waste repackaging was primarily done to support mixed waste repackaging and/or waste verification/ validation activities but was also used for other associated operational activities. The DEQ approved completion of closure activities on 05/10/2004.

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**Historical Closure Information at the INL**NODA Treatment

The NODA was a tract of land about 35 acres in size, located approximately 0.6 miles northeast of the INL gun range. Six treatment pits (T04) and one storage area (S01) were associated with this region. Closure was approved by the DEQ on 02/25/1997.

PWTU

The PWTU was an ion exchange treatment (T04) system in a transportable trailer. The unit was once located near the TAN facility and later located near the Power Burst Facility (PBF) reactor. The DEQ approved completion of closure activities on 07/08/1999.

PREPP Incinerator

This process consisted of the rotary kiln incinerator (T03) and its auxiliary equipment, located within the middle and southern portions of Building TAN-607. The DEQ approved completion of closure activities on 03/07/2000.

PREPP Waste Stabilization

This process consisted of stabilization (T04) unit equipment, located in the southern portion of Building TAN-607. The DEQ approved completion of closure activities on 03/07/2000.

RSSF

The RSSF consisted of cargo containers located in the Outside Radioactive Storage Area, designated as ANL-797. The facility was used for container storage (S01). The DEQ approved completion of closure activities on 08/03/2004.

RSTA

The RSTA was located at the ARA-IV, in the south-central portion of the INL, approximately 7.5 miles east of CFA. This unit consisted of a container storage unit (S01) and a thermal treatment (T04) unit. The thermal treatment unit was used once, to treat reactive and explosive hazardous waste. Closure was approved by the DEQ on 10/24/1994.

RWMC/ARP WMF-1619 and WMF-1621 Trailer Storage Areas

The WMF-1619 and WMF-1621 Trailer Storage Areas were three outdoor container storage areas originally permitted as container storage areas and located near the treatment units for storage of waste pending return to the Advanced Mixed Waste Treatment Project. The certification of closure was approved by the DEQ on 9/23/2014.

SMC Waste Calciner, Stabilization and Storage (TAN-681)

The SMC calciner (X03) unit thermally treated a slurry containing uranium oxides, salts and metallic compounds. The solidification/stabilization (T04) unit treated a depleted uranium oxide powder containing heavy metals, using Portland cement. A tank storage (S02) unit for waste storage prior to calcination and container storage (S01) unit for waste storage after calcination were also located at TAN-681. Closure was approved by the DEQ on 09/24/1997.

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**Historical Closure Information at the INL**SPF Transfer Line

The transfer line was a 986-ft long, above ground, approximately 2-in. stainless steel line with fiberglass insulation. The transfer line was located in the northwestern portion of the MFC and was used to transfer liquid sodium from the Sodium Boiler Building (SBB) to the northwest corner of the SPF. The transfer line was permitted to convey mixed waste with EPA Hazardous Waste Numbers D001 (ignitable) and D003 (reactive). Closure was approved by the DEQ on 05/15/2007.

SPF

The SPF consists of container storage (S01), container treatment (T04), tank storage (S02) and tank treatment (T01) and designated as Buildings 799 and 799A. The SPF Thin Film Evaporator was also included in this closure. The facility was used to convert sodium and NaK (characteristic mixed waste) into a low-level radioactive solid sodium hydroxide waste that was not RCRA hazardous, prior to final disposition. SPF partial tank system closure was approved by the DEQ on 09/02/2013. Additionally, Closure of all SPF units was approved by the DEQ on 03/07/2014.

Secondary Sodium System

The MFC-766 Secondary Sodium System (SSS) Ancillary Piping and Equipment was the remaining permitted components of the Experimental Breeder Reactor-II Secondary Sodium System, which comprised seven evaporators, two superheaters, a surge tank, a sodium pump, and associated ancillary piping and equipment. The closure certification was approved by the DEQ on 12/31/2015

TAN-647 Sodium Storage

This was a container storage (S01) unit, comprised of a sodium drain tank, located on a gravel-covered asphalt pad in the south half of Building TAN-647. Closure was approved by the DEQ on 06/13/1997.

TAN-666 Storage and Treatment Units

Closed 10/20/1994.

TAN-726/726A Chromate Water Treatment and Storage

This unit consisted of a concrete vault containing two interconnected stainless-steel 50,000-gallon tanks, used for waste treatment and storage (T04, S02), within Building TAN-726. Closure was approved by the DEQ on 12/26/1995.

TAN-628 THWS

This unit consisted of two container storage (S01) areas (Rooms 100 and 105) and one loading and unloading bay (Room 100A), located in the THWS building (TAN-628). DEQ acknowledges completion of the THWS closure activities on 02/20/2002. On 05/06/2002, the DEQ approved a Class 1 PMR for changing the THWS HWMA/RCRA permit expiration date to 06/01/2002.

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**Historical Closure Information at the INL**TAN-647 Waste Storage Facility

This process consists of a container storage (S01) unit encompassing the north half of Building TAN-647 and the asphalt pad located directly north of the building. The DEQ approved completion of closure activities on 01/09/2004.

TRA-610 Lead Storage

This was a container storage (S01) unit in one room within Building TRA-610. Closure approved by the DEQ on 10/27/1995.

TREAT

The TREAT consisted of a container storage (S01) and container treatment (T04) unit located in Building 720 at the MFC. The unit was used to store, characterize, and repackage characteristic and listed mixed waste prior to shipment to the Waste Isolation Pilot Plant (WIPP), or other approved disposal facilities for final disposition. DEQ approved administrative closure effective 09/11/2007.

WCF at INTEC

The WCF was initially closed as a landfill. Landfill closure was approved by DEQ on 11/02/1999. However, subsequent to closure the DEQ requested that a Post-Closure Permit Application be submitted. DEQ issued a Post-Closure Permit for the WCF with a Permit Effective Date of 10/16/2003.

WCF at RWMC

This unit was to be comprised of two container storage areas, container storage in glove boxes, and four small-scale treatment processes in glove boxes. These would have been located in a structure to be built south of Building WMF-612, within the TSA, at the RWMC. The unit was proposed, but never constructed. Administrative closure of this facility was approved by the DEQ on 09/25/2000.

WEDF Storage

This consisted of a container storage (S01) unit located within the cinderblock walled area, in the southwest corner of Building PER-612. Closure was approved by the DEQ on 12/02/1997.

WEDF Waste Stabilization

This treatment (T04) unit was located in the WEDF solidification room, in Building PER-612. Closure was approved by the DEQ on 12/02/1997.

WERF Drum Feed/Blending

The drum feed/blending (T04) unit was located on the exterior east side of Building PER-609 in Room 111A. It consisted of a concrete pad, a stainless-steel secondary containment pan, a liquid waste feed pump, two filters, and associated feed lines and piping (only up to the wall separating Rooms 111 and 111A). The DEQ approved completion of closure activities on 09/30/2003.

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**Historical Closure Information at the INL**WERF Incinerator

The WERF Incinerator was located at the CITRC, within Building PER-609. The unit was comprised of an incinerator (T03) and its auxiliary equipment, that was located in Room 108 (incinerator, heat exchanger, and solid waste feed lines), Room 101 (air pollution control system and solid waste feed system), and Room B109 (ash collection and handling systems). Room B111 housed the incinerator control consoles. The DEQ approved completion of closure activities on 09/30/2003.

WERF Macroencapsulation

This treatment unit (T04) was located at the CITRC, in Building PER-622. The unit prototype was constructed but not installed. The DEQ approved administrative closure of this unit on 01/03/2002.

WERF Repackaging

The repackaging room B102 within Building PER-609 was closed under interim status along with the Drum Feed/Blending unit and the WERF Incinerator. The DEQ approved completion of closure activities on 09/30/2003.

WERF Sizing

This unit was located at the CITRC, in Building PER-622. This unit was used to size radioactive low-level waste and is permitted to size mixed low-level waste. Closure was approved by the DEQ on 09/23/2002.

WERF Waste Stabilization System

The waste stabilization system/unit (T04) was located at the CITRC, within Building PER-609. The stabilization system included the drum tumbler, which was located in Room B106, and the double planetary mixer, which was located in Room 109. This unit was typically used to treat WERF flyash and WERF hearth ash. Treatment was performed via chemical conditioning (addition and blending chemical additives) of the waste, which resulted in binding the hazardous constituents in the waste, so that the treated waste met RCRA land disposal restrictions (LDRs). The DEQ approved completion of closure activities on 09/30/2003.

WERF Waste Storage/Feed Tanks

This unit storage/treatment unit (S02, T01) was never constructed. It was anticipated to be a tank system and associated piping, to expand the blending and treatment capability of the WERF Drum Feed/Blending Unit. The DEQ approved administrative closure of this unit on 05/16/2000.

WERF Waste Storage Building

This unit was located at the CITRC, within Building PER-623. The unit consisted of multiple container storage (S01) rooms. The DEQ approved completion of closure activities for the WWSB on 04/13/2004.

## **Appendix B**

### **Historical Summary Information**

## Historical Summary Information

Under Title 40, CFR, Part 270.73(g), interim status terminates for any facility (other than land disposal or incineration) on November 8, 1992, unless the RCRA Part B permit application for the facility was submitted by November 8, 1988. Furthermore, the EPA published a clarification notice, in the September 23, 1988 Federal Register (FR), that radioactive mixed waste management units in existence on or before July 3, 1986, may be granted interim status if the RCRA Part A permit application was submitted to the EPA or authorized state by March 23, 1989. The INL originally submitted a Part A permit application to the EPA in 1980, however, at the time of this Part A submittal, it was believed that all Atomic Energy Act program wastes were not regulated by RCRA requirements. The INL later submitted to the EPA several revisions to the RCRA Part A permit application for RCRA regulated units at the INL that included all hazardous waste management units and many radioactive mixed waste management units potentially subject to RCRA regulations. Furthermore, a revised Part A permit application was submitted to the EPA on March 23, 1989, that included all radioactive mixed waste units potentially subject to RCRA regulations.

RCRA Part B permit applications have been submitted previously, to EPA Region 10, for a number of units at the INL. The State of Idaho was authorized by the EPA to implement the EPA's hazardous waste management program under the HWMA effective April 9, 1990. Following this effective date, the DEQ has administered the program for the state and has authority to issue HWMA/RCRA operating permits that comply with state and federal laws. The INL transmitted a revised Part A permit application to the DEQ on September 27, 1990, which the DEQ approved on March 19, 1991, thereby granting interim status to all units listed in the September 1990 Part A permit application. The number of units on the 1988 Part A permit application precluded the completion of a Part B permit application by November 8, 1988, that met all the requirements of 40 CFR 270; no schedule had yet been established by EPA Region 10 for completion of the Part B permit applications for the radioactive mixed waste units at the INL. Therefore, the INL HWMA/RCRA Work Plan was originally prepared and submitted to EPA Region 10, in November 1988, to provide a schedule for revising the existing INL RCRA Part B permit application, and supplementing the application, to include the requisite information for the additional units for which final operating permits are sought. Thus, the November 1988 work plan was intended to fulfill the filing requirements to maintain interim status through 1992 and beyond, for the waste management units identified on the revised Part A permit application. In April 1989, the work plan was revised to incorporate additional radioactive mixed waste management units included in the March 1989 Part A permit application. The November 1990 revision through to the present revision of the work plan incorporates changes to the Part A permit application, changes to the Partial-Part B permits, the proposed permit application and PMR schedule, and proposed closures schedules. Each volume of the HWMA/RCRA Part B permit application will be submitted



to the DEQ by the Department of Energy Idaho Operations Office approved management and operations contractor. The HWMA/RCRA Part B permit applications will be prepared in a series of supplements (volumes).

The RCRA Part B permit application for the INL was originally submitted in October 1985, to EPA Region 10, and addressed the following waste management units: HWSF at CFA-637; RMWSF at SPERT-IV; WERF Incinerator at SPERT-III; Hazardous and Mixed Waste Storage/Blending Tanks for waste feed to the WERF Incinerator at SPERT-III; and Waste Stabilization (solidification) at WERF (SPERT-III).

The 1985 RCRA Part B permit application was revised in March 1986, in response to deficiencies identified by the EPA (December 1985 NOD). The March 1986 revision also documented replacement of the Waste Feed Storage/Blending Tanks at the WERF, with a two-drum waste feed/blending station.

A supplement to the INL RCRA Part B permit application was submitted to EPA Region 10, in November 1986, to add the PREPP Incinerator, the PREPP Waste Stabilization Unit, and associated waste storage and waste storage/blending units. The application was further revised in November 1986, in response to deficiencies identified by EPA Region 10 (March 1987 NOD). This revision also incorporated three units not previously addressed: WEDF Waste Stabilization at SPERT-II, and two separate storage units for liquids and solids at the PREPP. The five-volume November 1987 submittal replaced all RCRA Part B materials previously submitted.

In 1986 and 1987, land disposal units (LDUs) were added to the INL Part A permit application, in compliance with the Consent Order and Compliance Agreement (COCA) for the INL. Thirty LDUs were identified under the COCA. The COCA was later replaced by the Federal Facilities Agreement and Consent Order (FFA/CO), on December 9, 1991. The LDUs will all be evaluated under the FFA/CO. Units retaining the HWMA/RCRA LDU designation will be remediated, if necessary, under the CERCLA process, in accordance with the applicable substantive requirements of HWMA/RCRA (acceptable risk to human health or the environment).

## **Appendix C**

### **HWMA/RCRA Permitting Point of Contact Matrix**

**HWMA/RCRA Permitting Point of Contact**

Volume / Document Number	Permit Name / Waste Management Unit Description	Unit Location	Unit Status	INL Point of Contact	DOE Idaho Operations Office Point of Contact	DEQ Point of Contact
Vol. 1 PER-101	HWMA/RCRA Part A Permit Application for the INL – Volume 1 - INTEC	INL - INTEC	Interim Status Revision Date: March 2018.	Paula Dickinson 208-533-0405	Tauna Butler 208-526-5710	John Means 208-373-0208
ISD-TSA-06	AMWTP HWMA/RCRA Transuranic Storage Area Interim Status Document	RWMC/AMWTP	Interim Status Revision Date: March 12, 2020.	Kendall Coughlan 208-533-6354 208-346-0790	Tauna Butler 208-526-5710	Garrett Bright 208-373-0502
Vol. 2	HWMA/RCRA Part A Permit Application for the INL - MFC	INL - MFC	Not Applicable	Ed Hart 208-533-7772	Tauna Butler 208-526-5710	Garrett Bright 208-373-0502
Vol. 3 PER-102	HWMA/RCRA Part B Permit Application for the INL – Volume 3 General Information for INL Waste Management Units	INL	Revision Date: July 2017.	Paula Dickinson 208-533-0405	Tauna Butler 208-526-5710	John Means 208-373-0208
Vol. 14 PER-111	Partial Permit for the HWMA Storage & Treatment for the Liquid Waste Management System at the INTEC on the INL.  <b>ILWMS:</b> PEWE Evaporator System  *CPP-604 Tank Farm Tanks  LET&D Fractionator System  NWCF Evaporator Tank System  NWCF Storage and Treatment Tanks  <b>IWTU:</b> Storage and Treatment Units	INTEC CPP-604  INTEC CPP-604  INTEC CPP-1618  INTEC CPP-659  INTEC CPP-659  INTEC CPP-1696	Permitted 10/18/2004. Permit Reissued with an Effective Date of 11/20/2014.  *Operating under Interim Status Document ISD-4	Chris Vilord 208-533-6283      IWTU – Matt Francis 208-533-0045	Tauna Butler 208-526-5710      IWTU – Nicole Hernandez 208-526-8949	Kim Custer 208-373-0502
Vol. 18 PER-109	HWMA Storage & Treatment Permit for the INTEC and the RWMC on the INL.  <b>INTEC Units (Books 1&amp; 2):</b> NWCF Debris and Other Treatment Processes  NWCF Tank Treatment  Holdup and Collection Tanks  CPP-659/1659 Storage  CPP-666 FDP Cell Container and Tank Storage, Tank Treatment, and Other Treatment Processes  CPP-659 Miscellaneous and Other Treatment Processes  RMWSF (CPP-1617) Container Storage and Other Treatment and CPP-2725	CPP-659  CPP-659  CPP-659  CPP-659/1659  CPP-666  CPP-659  CPP-1617 CPP-2725	Permitted 11/05/2001. Permit Reissued with an Effective Date of 04/27/2009.	Michelle Sutherland 208 533-3294 208-220-9960	Tauna Butler 208-526-5710	John Means 208-373-0208

**HWMA/RCRA Permitting Point of Contact**

Volume / Document Number	Permit Name / Waste Management Unit Description	Unit Location	Unit Status	INL Point of Contact	DOE Idaho Operations Office Point of Contact	DEQ Point of Contact
Vol. 18 PER-109	<b>RWMC (ARP) Units (Books 3A &amp; 3B):</b> WMF-698 Storage WMF-1617 Storage and Treatment WMF-1619 Storage and Treatment Outside Storage Areas	WMF-698 WMF-1617 WMF-1619 Outside areas near buildings WMF-1617, WMF-1619, WMF-1621, WMF-698, & Bridge Area		Kendall Coughlan 208-533-6354 208-346-0790	Tauna Butler 208-526-5710	Garrett Bright 208-373-0502
Vol. 21 PER-112	HWMA Post-Closure Permit for the INTEC on the INL CPP-633 Units (Waste Calcine Facility) CPP-601/627/640	INTEC/CPP-633 and CPP-601/627/640	WCF Units closed as a landfill 11/02/1999. WCF Units Post-Closure Permitted 10/16/2003. CPP-601/627/640 Post Closure Permit reissued with an Effective Date of 03/14/2014.	Wendell Jolley 208-533-3453 208-589-3643  Susan Evans 208-533-0086 208-206-2072	Tauna Butler 208-526-5710	Brian English 208-373-0502
Vol. 22 PER-114	HWMA/RCRA Partial Permit for Storage at the CSSF at the INTEC on the INL	INTEC – CSSF	Permitted 11/09/2006. Permit Reissued with an Effective Date of 06/26/2017.	Doug Collins 208-533-6507  Susan Evans 208-533-0086 208-206-2072	Tauna Butler 208-526-5710	John Means 208-373-0208
PER-116	HWMA/RCRA Storage & Treatment Permit for the MFC RSWF SSA NFA SSB RSWF HFEF SCMS	MFC N/A N/A Building 703 Building 771 Building 785 Building 797	Permitted 08/2004. Permit Reissued with an Effective Date of 10/01/2015.	Ed Hart 208-533-7772	Tauna Butler 208-526-5710	Garrett Bright 208-373-0502
PER-153	AMWTP HWMA/RCRA Permit	RWMC	Permitted 06/04/2008. Permit reissued with an Effective Date of 05/20/2019.	Kendall Coughlan 208-533-6354 208-346-0790	Tauna Butler 208-526-5710	Garrett Bright 208-373-0502