HWMA/RCRA PARTIAL PERMIT

FOR STORAGE AT THE

CALCINED SOLIDS STORAGE FACILITY

AT THE

IDAHO NUCLEAR TECHNOLOGY & ENGINEERING CENTER

ON THE

IDAHO NATIONAL LABORATORY

EPA ID NO. ID4890008952

Effective Date: June 26, 2017

Book 1 of 1

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, ID 83706 • (208) 373-0502
www.deq.idaho.gov

C. L. "Butch" Otter, Governor
John H. Tippets, Director

Permittee: **Department of Energy (DOE) and DOE-Designated Contractors, Idaho National Laboratory (INL) Partial Permit Number: EPA ID# ID4890008952**

INTRODUCTION AND SIGNATURE PAGE

Pursuant to the Idaho Hazardous Waste Management Act of 1983 (HWMA), Idaho Code § 39-4401 *et seq.*, and the "*Rules, and Standards For Hazardous Waste*," as amended, IDAPA 58.01.05.000 *et seq.*, specifically IDAPA 58.01.05.012 [40 Code of Federal Regulations (CFR) § 270.1(c)(4)], a Partial Permit (for less than the entire facility) is hereby issued to the United States Department of Energy (DOE) and DOE-designated contractor (see Permit Definitions), hereinafter called the Permittee, to operate a hazardous waste storage facility at the Idaho Nuclear Technology and Engineering Center (INTEC), located on the Idaho National Laboratory (INL), located in Butte County, Idaho.

The Permittee shall comply with all of the terms and conditions of this Partial Permit (Permit), and Attachments 1 through 9 of this Permit. The Permittee shall comply with all applicable state regulations, including IDAPA 58.01.05.004 through 58.01.05.013 [40 CFR, Parts 124, 260 through 266, 268, and 270], and as specified in this Permit.

Applicable state regulations are those which are in effect on the date of final administrative disposition of this Permit and any self-implementing statutory provisions and related regulations which, according to the requirements of the Hazardous and Solid Waste Amendments (HSWA), are automatically applicable to the Permittee's hazardous waste management activities, notwithstanding the conditions of this Permit.

This Permit is based upon the administrative record, as required by IDAPA 58.01.05.013 [40 CFR § 124.9]. The Permittee's failure, in the application or during the permit issuance process, to fully disclose all relevant facts, or the Permittee's misrepresentation of any relevant facts, at anytime, shall be grounds for the termination or modification of this Permit and/or initiation of an enforcement action, including criminal proceedings. To the extent there are inconsistencies between the Permit and the attachments, the language of the permit shall prevail. The Permittee must inform the Director of the Idaho Department of Environmental Quality (hereinafter referred to as "Director") of any deviation from the permit conditions or changes in the information on which the application is based, which would affect the Permittee's ability to comply or actual compliance with the applicable regulations or permit conditions, or which alters any permit condition in any way. The Director shall enforce all conditions of this Permit, which are designated in this Permit as state requirements. Any challenges of any permit condition that concern requirements shall be appealed to the Director, in accordance with IDAPA 58.01.05.996 and the Idaho Department of Environmental Quality Rules and Regulations 58.01.23, *"Rules of Administrative Procedure Before the Board of Environmental Quality."*

This Permit is effective as of **June 26, 2017** and shall remain in effect until **June 26, 2027**, unless, in accordance with IDAPA 58.01.05.012, the Permit is revoked and reissued [40 CFR § 270.41], modified [40 CFR § 270.42, Appendix I.A.6], terminated [40 CFR § 270.43], or continued [40 CFR § 270.51].

May 22, 2017
Date

John H. Tippets, Director
Idaho Department of Environmental Quality

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LIST OF ATTACHMENTS

The following documents are excerpts from the Permittee's Administrative Record, i.e., HWMA/RCRA Permit Reapplication for the INTEC Calcined Solids Storage Facility (CSSF) dated May 2016; Book 1 supplemental reports, and other documents contained in the Department's supporting file for the draft Permit. The Director, as deemed necessary, modified specific language in the Attachments. These modifications are described in the permit conditions (Modules I through IV) and, thereby, supersede the language of the original attachment. If the language of the Permit conflicts with either the attachments or the original reapplication, the language in the Permit shall prevail. These incorporated attachments are enforceable conditions of this Permit, as modified by the specific permit condition(s).

ATTACHMENT 1 INL FACILITY DESCRIPTION, consisting of:

Volume 22: CSSF Part B Permit; Pages as identified below;

1 Part A [May 2016]
2 Section B: Facility Description (pages i-6) [May 2016]
3 Section D: Process Information (pages i-14) [May 2016]

ATTACHMENT 2 WASTE ANALYSIS PLAN

Volume 22: CSSF Part B Permit; Section C: Waste Characteristics (pages i-21) [May 2016]

ATTACHMENT 3 SECURITY

Volume 22: CSSF Part B Permit; Section F-1: Security (pages i-2) [May 2016]

ATTACHMENT 4 INSPECTIONS

Volume 22: CSSF Part B Permit; Section F-2: Inspection Schedule (pages i-3), Appendix F-1 (schedule) and Appendix F-2 (inspection forms) [May 2016]

ATTACHMENT 5 PERSONNEL TRAINING at the INTEC consists of:

Volume 22: CSSF Part B Permit; Section H: Personnel Training (pages i-9) [May 2016]

ATTACHMENT 6 PROCEDURES TO PREVENT HAZARDS

Volume 22: CSSF Part B Permit; Sections F-3, F-4, F-5: Procedures to Prevent Hazards (pages i-3) [May 2016]

ATTACHMENT 7 CONTINGENCY PLAN

Volume 22: CSSF Part B Permit; Section G: Contingency Plan (pages i-26) [May 2016]

ATTACHMENT 8 CLOSURE PLAN

Volume 22: CSSF Part B Permit; Section I: Closure and Post Closure Requirements (pages i-11) [May 2016]

ATTACHMENT 9 PERMIT REVISION LOG

Volume 22: CSSF Part B Permit; Revision Log (pages i-1) [May 2016]

LIST OF APPENDICES

APPENDIX 1 CSSF Facility Drawing List and Drawings [May 2016]

APPENDIX 2 Tank System Integrity Assessment [May 2016]

APPENDIX 3 Representative Calcine Sample Analytical Data [May 2016]

APPENDIX 4 CSSF Engineering Design File [May 2016]

APPENDIX 5 Section E: Groundwater Monitoring [May 2016]

APPENDIX 6 Section J: Corrective Action for Solid Waste Management Units [May 2016]

APPENDIX 7 Section K: Other Federal Laws [May 2016]

APPENDIX 8 Section L: Certification Statements [May 2016]

DEFINITIONS

For purposes of this Permit, the following definitions shall apply:

a. "Application" shall mean the following: The HWMA/RCRA Part B Permit Application for the Idaho National Laboratory, Volume 22, Calcined Solids Storage Facility, Book 1 Revision 0, May 2016, and all DEQ approved Permit Modifications as detailed in Attachment 9, Permit Revision Log.

b. "Calcine" shall mean the granular solid mixed waste, without free liquids, derived from either the Waste Calcining Facility or the New Waste Calcining Facility, regulated as hazardous under IDAPA 58.01.05.005 [40 CFR 261, Subparts C and D] and radioactive under the Atomic Energy Act.

c. "Days" shall mean calendar day(s) unless otherwise specified. Any requirement of submittal under the terms of this Permit that would be due on a Saturday, Sunday, or a state or federal holiday shall be due on the following business day."

d. "Department" shall mean the Idaho Department of Environmental Quality.

e. "Director" shall mean the Director of the Department of Environmental Quality, or his designee, or authorized representative.

f. "Discovery (discovered)" shall mean the initial identification of a SWMU or other Area of Concern, which has the potential to release hazardous waste or hazardous waste constituents to the environment.

g. "DOE" shall mean the United States Department of Energy.

h. "Facility" shall mean all contiguous land, structures, other appurtenances, and improvements under the control of the Department of Energy at the Idaho National Laboratory (INL) for total of approximately 890 square miles or 601,260 acres

i. "HSWA" shall mean the Hazardous and Solid Waste Amendment of 1984.

j. "HWMA" shall mean the State of Idaho, Hazardous Waste Management Act of 1983, as amended, Idaho Code § 39-4401 et seq.

k. "Hazardous Waste" shall mean a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, or chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed [See 42 USC § 6903(5)].

l. “Hazardous Waste Constituent” shall mean any constituent identified in Appendix VIII of IDAPA 58.01.05.005 [40 CFR Part 261], or any constituent identified in Appendix IX of IDAPA 58.01.05.008 [40 CFR Part 264].

m. “Hazardous Waste Management Unit (HWMU)” shall mean those operable units subject to the requirements of IDAPA 58.01.05.012 [40 CFR §§ 270.14 through 270.25].

n. “Mixed waste” shall mean waste that is both hazardous and radioactive.

o. "Operator" shall mean Fluor Idaho, LLC., the DOE-designated contractor that has responsibilities and control of the HWMU.

p. “Owner” shall mean the United States Department of Energy (DOE).

q. “Permittee” shall mean both DOE and Fluor Idaho, LLC.

r. “RCRA” shall mean the Resource Conservation and Recovery Act of 1976, as amended by HSWA in 1984.

s. “Release” shall mean any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous waste constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous waste constituents).

t. “Solid Waste Management Unit” (SWMU) shall mean any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous wastes. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

All definitions contained in IDAPA 58.01.05.004, .005, .008, and .010 through .013 [40 CFR Parts 260, 261, 264, 266, 268, 270, and 124] are hereby incorporated, in their entirety, by reference into this Permit, except that any of the definitions used above shall supersede any definition of the same term given in IDAPA 58.01.05.000 et seq. Where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

LIST OF TABLES

TABLE 1 REQUIRED SUBMITTALS and DATES

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ACRONYMS AND ABBREVIATIONS

ALARA	As low as reasonably achievable
ASTM	American Society for Testing and Materials
CAMs	Constant air monitors
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFA	Central Facility Area
CFR	Code of Federal Regulations
CSM	Critical Systems Maintenance
CSSF	Calcined Solids Storage Facility
DCS	Distributed Control System
DEQ	Department of Environmental Quality
DOE	Department of Energy
DOE-ID	Department of Energy, Idaho Operations Office
DOT	Department of Transportation
DQO	Daily Quality Objectives
EAL	Emergency Action Level
EAM	Emergency Action Manager
EC	Emergency Coordinator
ED	Emergency Director
EDF	Engineering Design File
EMCAP	Environmental Management Consolidated Audit Program
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
EP/RCRA CP	Emergency Plan Resource Conservation and Recovery Act Contingency Plan
ERO	Emergency Response Organization
FAC	Fire Alarm Center
FFA/CO	Federal Facilities Agreement/Consent Order
GERT	General Employee Radiation Training
HEPA	High-Efficiency Particulate Air
HSWA	Hazardous and Solid Waste Amendments of 1984
HWMA	Hazardous Waste Management Act of 1983, as amended
HWMU	Hazardous Waste Management Unit
HWNs	Hazardous Waste Numbers
IBC	International Building Code
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
LDR	Land Disposal Restrictions
M&O	Management and Operations
MOU	Memoranda of Understanding
MSDS	Material Safety Data Sheet
NRC	Nuclear Regulatory Commission
NWCF	New Waste Calcining Facility
OJT	On-the-Job Training

OSC	On-Scene Commander
OSHA	Occupational Safety and Health Administration
P&ID	Piping and Instrumentation Diagram
PE	Professional Engineer
PPE	Personal Protective Equipment
QA/QC	Quality Assurance/Quality Control
RA	Radiological Assay
RCRA	Resource Conservation and Recovery Act
RCT	Radiological Control Technician
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act of 1986
SAT	Systematic Approach to Training
SBW	Sodium-Bearing Waste
SPOs	Security Police Officers
SRPA	Snake River Plain Aquifer
STP	INL Site Treatment Plan
SW-846	Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
SWMU	Solid Waste Management Unit
TCLP	Toxicity Characteristic Leaching Procedure
TSDF	Treatment, Storage, and Disposal Facility
UBC	Uniform Building Code
UHC	Underlying Hazardous Constituent
USGS	United States Geological Survey
WAC	Waste Acceptance Criteria
WAP	Waste Analysis Plan
WCC	Warning Communications Center
WCF	Waste Calcining Facility
WDDF	Waste Determination and Disposition Form
WGS	Waste Generator Services

MODULE I - STANDARD PERMIT CONDITIONS

I.A. EFFECT OF PERMIT

The Permittee is allowed to store mixed waste in the Idaho Nuclear Technology and Engineering Center (INTEC), Calcined Solids Storage Facility (CSSF) in accordance with the conditions of this Partial Permit. Any storage of mixed waste in the Hazardous Waste Management Units (HWMU), described herein, not authorized in this Permit, is prohibited.

Pursuant to IDAPA 58.01.05.012 [40 CFR § 270.4], compliance with this Permit generally constitutes compliance (for purposes of enforcement) with the Idaho Hazardous Waste Management Act (HWMA), as amended, except for those requirements not included in this Permit, which become effective by statute or future regulatory changes to include those requirements promulgated under IDAPA 58.01.05.011 [40 CFR Part 268] restricting the placement of hazardous waste in or on the land. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local laws or regulations.

I.A.1. The Department of Energy (DOE) is the owner and is responsible for activities which include, but are not limited to, policy, programmatic funding, and scheduling decisions, as well as the overall management and operation of the facility.

I.A.2. The DOE-designated contractor, as operator, is responsible for the day-to-day operations of the assigned permitted units and for all permitted activities related to the assigned units, for which the DOE-designated contractor, its agents, employees, or subcontractors have operational responsibilities and control, including waste characterization and handling, monitoring, record keeping, reporting, and contingency planning.

I.B. ENFORCEABILITY

The terms and conditions of this Permit are enforceable pursuant to the HWMA or any other applicable federal, state, or local law. Violations of this Permit may result in civil penalties, in accordance with the HWMA [Idaho Code § 39-4414] and the HWMA Civil Penalty Policy.

I.B.1. Any person who knowingly makes any false statement or representation in any application, label, manifest, record, report, permit, or other document filed, maintained or used, for the purposes of complying with the provisions of Idaho Code § 39-4415, shall be guilty of a misdemeanor and subject to the maximum daily fine allowed by law or to imprisonment not to exceed one (1) year, or to both, for each separate violation or for each day of a continuing violation.

I.C. OTHER AUTHORITY

The Department expressly reserves any right of entry provided by law, and any authority to order or perform emergency or other response activities as authorized by law.

I.D. PERMIT ACTIONS

I.D.1. This Permit may be modified, revoked and reissued, or terminated for cause, as specified in IDAPA 58.01.05.012 [40 CFR §§ 270.41, 270.42, or 270.43].

I.D.2. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition in accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(f)].

I.D.3. The Director may modify this Permit when the standards or regulations on which the Permit was based have been changed by statute, amended standards or regulations, or by judicial decision after the effective date of this Permit.

I.D.4. Except as provided by specific language in this Permit or except for the Director's approval of a Class 1 or 2 Permit Modification, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42(a) and (b)], any modifications which substantially alter the facility or its operation (as covered by this Permit) shall be administered as a Class 3 Permit Modification prior to such change taking place, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42(c)].

I.D.5. Within forty-five (45) days of a permit modification being put into effect or approved, the Permittee shall provide clean copies of the relevant portions of the Permit and Attachments to incorporate the change (if not already reflected/provided in the change pages submitted with the Permit Modification Request), reprint the documents (as necessary), and submit them to the Director in accordance with Permit Condition I.Y.

I.D.6 The Permittee shall ensure Attachment 9, "Modification Tracking Log" is current, consistent with Permit Condition I.D.5.

I.E. SEVERABILITY

I.E.1 The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. Invalidation of any state or federal statutory or regulatory provision, which forms the basis for any condition of this Permit, does not affect the validity of any other state or federal statutory or regulatory basis for said provision.

I.E.2 In the event that a condition of this Permit is stayed for any reason, the Permittee shall continue to comply with the related applicable and relevant permitted standards in IDAPA 58.01.05.008 [40 CFR Part 264] until final resolution of the stayed condition, unless compliance with the related applicable and relevant interim status standards would be technologically incompatible with compliance with other conditions of this Permit that have not been stayed.

I.F. DUTY TO COMPLY

I.F.1 The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit issued in accordance with IDAPA 58.01.05.012 [40 CFR § 270.61]. Any permit noncompliance (other than noncompliance authorized by an emergency permit) constitutes a violation of HWMA, and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification of the Permit, or denial of a permit renewal application as specified in IDAPA 58.01.05.012 [40 CFR § 270.30(a)]

I.F.2. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under §§ 3007, 3008, 3013, or 7003 of RCRA [42 U.S.C. §§ 6927, 6928, 6934, and 6973], §§ 104, 106(a), or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [42 U.S.C. §§ 9604, 9606(a), or 9607, commonly known as CERCLA], as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), or any other state or federal law providing for protection of public health or the environment from any imminent and substantial endangerment to human health or the environment.

I.G. 5-YEAR REOPENER and DUTY TO REAPPLY

I.G.1. This Permit shall be reviewed five (5) years after the effective date of this permit and modified as necessary to adjust for new technology concerning storage, inspection, removal and/or final disposition of the calcine.

I.G.2. If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee must submit a new application a minimum of 180 calendar days prior to the expiration of this Permit, in accordance with IDAPA 58.01.05.012 [40 CFR §§ 270.10(h) and 270.30(b)]. Failure to submit a timely permit application, prior to completion of closure, will result in enforcement action in accordance with IDAPA 58.01.05.012 [40 CFR § 270.51(c)].

I.H. PARTIAL PERMIT EXPIRATION

Except as renewed, modified, revoked, reissued, or terminated by the Department, this Permit shall automatically expire ten (10) years from the effective date of this Permit.

I.I. CONTINUATION OF EXPIRING PERMIT

I.I.1. This Permit and all conditions herein shall continue in force until the effective date of a new permit, if the Permittee has submitted a timely and complete application in accordance with IDAPA 58.01.05.012 [40 CFR §§ 270.10, 270.13 through 270.29], and

through no fault of the Permittee, the Director has neither issued or denied a new permit under IDAPA 58.01.05.013 [40 CFR § 124.5] on or before the expiration date of this Permit.

I.I.2. If the Permittee fails to submit a timely and complete application (in accordance with IDAPA 58.01.05.012 [40 CFR §§ 270.10, 270.13 through 270.29]); the Permittee may be subject to the maximum daily fine allowed by law for each day of non-compliance. All Permit conditions herein shall continue in force through the period of non compliance (until the effective date of a new permit, or until the wastes have been removed and units have been clean closed in accordance with this permit).

I.J. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for the Permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit, as specified in IDAPA 58.01.05.012 [40 CFR § 270.30(c)].

I.K. DUTY TO MITIGATE

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment resulting from the noncompliance, and shall carry out such measures as are reasonable, to prevent significant adverse impacts on human health or the environment, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(d)].

I.L. PROPER OPERATION AND MAINTENANCE

The Permittee shall, at all times, properly operate and maintain all facilities and controls (and related appurtenances), which are installed or used by the Permittee, to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary equipment or similar systems, only when necessary, to achieve compliance with the conditions of this Permit, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(e)].

I.M. DUTY TO PROVIDE INFORMATION

The Permittee shall furnish to the Department and/or the Director, within a reasonable time, any relevant information which the Department and/or the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Department and/or the Director, upon request, copies of records required to be kept by this Permit, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(h)].

I.N. INSPECTION AND ENTRY

Pursuant to IDAPA 58.01.05.012 [40 CFR § 270.30(i)], the Permittee shall allow the Department, the Director, and/or their authorized officers, employees or representatives (upon the presentation of credentials and other documents), as may be required by law, to:

I.N.1. Enter, at reasonable times, the Permittee's premises where a regulated facility or activity is located or conducted, or where records are kept as required by the conditions of this Permit;

I.N.2. Have access to, and copy, at reasonable times, any records that are kept as required by the conditions of this Permit;

I.N.3. Inspect at reasonable times any portion of the facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

I.N.4. Sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the HWMA or RCRA, any substances or parameters at any location.

I.O. MONITORING AND RECORDS

I.O.1 The Permittee shall retain copies of all reports required by this Permit, the certification required by IDAPA 58.01.05.008 and IDAPA 58.01.05.012 [40 CFR §§ 264.73(b)(9) and 270.30(j)(2)], and records of all data used to complete the application for this Permit for a period of at least three (3) years from the date of the report, record, or certification unless a longer retention period for certain information is required by other conditions of this Permit. This period may be extended by request of the Director at any time.

I.O.2. Pursuant to IDAPA 58.01.05.012 [40 CFR § 270.30(j)(3)], records of monitoring information shall specify the following:

I.O.2.a. The date(s), exact place, and times of sampling or measurements;

I.O.2.b. The name(s), of individuals who performed the sampling or measurements;

I.O.2.c. The date(s) analyses were performed;

I.O.2.d. The name(s), of individuals who performed the analyses;

I.O.2e. The analytical techniques or methods used; and

I.O.2.f. The results of such analyses, including the Quality Control/Quality Assurance summary.

I.O.3. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(j)(1)]. The method used to obtain a representative sample of the waste to be analyzed shall be the appropriate method from IDAPA 58.01.05.005 [40 CFR Part 261, Appendix I], or an equivalent method approved by the Director. Laboratory methods shall be Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846 (prevailing edition), Standard Methods of Wastewater Analysis (prevailing edition), or other director approved methods capable of measuring the defined parameter alternate methods approved in this Permit, or an equivalent method in accordance with Permit Condition I.O.4. of this Permit.

I.O.4 The Permittee must submit to the Director for approval, a request to deviate from approved or other recognized sampling methods in accordance with the following:

I.O.4.a. The request shall provide information demonstrating that the proposed method(s) requested to be substituted, are equivalent or superior in terms of sensitivity, accuracy, and precision (i.e., reproducibility); and

I.O.4.b. The Permittee receives a written approval from the Director for the substitution of analytical method(s). Such approval shall not require a permit modification under IDAPA 58.01.05.012 [40 CFR § 270.42].

I.P. REPORTING PLANNED CHANGES

The Permittee shall give notice to the Director as soon as possible prior to any planned physical alteration or additions to the permitted facility, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(l)(1)].

I.Q. REPORTING ANTICIPATED NONCOMPLIANCE

The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with requirements of this Permit, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(l)(2)]. Advance notice shall not constitute a defense for any noncompliance.

I.R. CERTIFICATION OF CONSTRUCTION OR MODIFICATION

I.R.1 The Permittee may not commence storage of mixed waste in a new permitted Hazardous Waste Management Unit or in a modified portion of an existing permitted Hazardous Waste Management Unit, except as provided in IDAPA 58.01.05.012 [40 CFR § 270.42], until the Permittee has submitted to the Director (by certified mail, express mail, or hand delivery) a letter, along with the attachments required under Permit Condition II.A.2., signed by the Permittee and a registered professional engineer certifying that the permitted unit(s) at the facility have been constructed or modified in accordance with the approved plans and specifications in compliance with this Permit, IDAPA 58.01.05.012 [40 CFR § 270.30(l)]; and

I.R.2. The Director has reviewed and inspected (if deemed appropriate) the modified or newly constructed unit(s), and has notified the Permittee in writing that the unit(s) were found in compliance with the conditions of this Permit; or

I.R.3. If within fifteen (15) calendar days after the date of submission of the letter in Permit Condition I.R.1. of this Permit, the Permittee has not received notice from the Director of the intent to inspect, prior inspection is waived and the Permittee may commence storage of hazardous waste in the permitted unit(s) certified, in accordance with Permit Condition I.R.1. of this Permit.

I.S. TRANSFER OF PERMIT

This Permit shall be transferred to a new owner or operator only if it is modified or revoked and reissued, pursuant to IDAPA 58.01.05.012 [40 CFR § 270.40]. Prior to transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator, in writing, of the requirements of IDAPA 58.01.05.008 and 58.01.05.012 [40 CFR Parts 264 and 270] and this Permit.

I.T. TWENTY-FOUR-HOUR REPORTING

I.T.1. In accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(l)(6)], the Permittee shall verbally report to the Director and Idaho State Communications Center, any noncompliance with this Permit that may endanger human health or the environment within twenty-four (24) hours from the time the Permittee becomes aware of such noncompliance, including:

I.T.1.a. Noncompliance with Permit Condition II.A.1. of this Permit; or

I.T.1.b. Information concerning a release of any hazardous waste that may endanger public drinking water supplies; or

I.T.1.c. Any information of a release or discharge of mixed waste, or of a fire or explosion at the facility that could threaten human health or the environment outside the facility.

I.T.2. The description of the occurrence and its cause shall, at a minimum, include:

- Name, title, and telephone number of individual reporting;
- Name, address, and telephone number of the owner or operator;
- Name, address, and telephone number of the facility;
- Date, time, and type of incident;
- Location and cause of the accident;
- Name and quantity of materials involved;
- The extent of injuries, if any;
- An assessment of actual or potential hazards to the environment and human health, where this is applicable;
- Description of any emergency action taken to minimize possible threat(s) to human health and the environment;

- Estimated quantity and disposition of recovered material that resulted from the incident; and
- Any other information necessary to evaluate the situation and to develop an appropriate course of action.

I.T.3. Within five (5) calendar days after the Permittee is required to provide verbal notification, as specified in Permit Condition I.T.1. of this Permit, the Permittee shall provide to the Director a written submission. The written submission shall include, but not be limited to, the following:

- Name, address, and telephone number of individual reporting;
- A description (include cause, location, extent of injuries (if any), and an assessment of actual or potential hazard(s) to the environment and human health outside the facility (where this is applicable) of the incident (noncompliance and/or release);
- The period(s) in which the incident (noncompliance and/or release) occurred (including exact dates and times);
- Whether the results of the incident remain a threat to human health and the environment (whether the noncompliance has been corrected and/or the release has been adequately remediated); and
- If not, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance, and/or the steps taken or planned to adequately remediate the release.

I.T.4. The Permittee need not comply with the five (5) calendar-day, written notice requirement if the Director waives the requirement, and the Permittee submits a written report within fifteen (15) calendar days from the time the Permittee is required to provide verbal notification, as specified in Permit Condition I.T.1. of this Permit.

I.U. OTHER NONCOMPLIANCE

The Permittee shall report, on a semi-annual basis, all other instances of noncompliance, not otherwise required to be reported in accordance with Permit Condition I.T. of this Permit, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(l)(10)]. Reports shall be due on February 1 and August 1 of each year. The reports shall contain the information listed in Permit Condition I.T of this Permit. Reporting shall not constitute a defense for any noncompliance.

I.V. OTHER INFORMATION

Whenever the Permittee becomes aware that any relevant information was omitted in the permit application or incorrectly submitted in the permit application or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director, in accordance with Permit Condition I.Y. of this Permit in accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(l)(11)].

I.W. SIGNATORY REQUIREMENT

All applications, reports, or information requested by or submitted to the Director shall be signed and certified in accordance with IDAPA 58.01.05.012 [40 CFR §§ 270.11 and 270.30(k)].

I.X. CONFIDENTIAL INFORMATION

Pursuant to Title 9, Chapter 3, of the Idaho Code; IDAPA 58.01.05.012 [40 CFR § 270.12]; or any other applicable federal, state, or local law; the Permittee may assert a claim of confidentiality regarding any information required to be submitted pursuant to this Permit. The Department shall determine whether said information is exempt from disclosure, pursuant to applicable law.

I.Y. REPORTS, NOTIFICATIONS, AND SUBMISSIONS

All reports, notifications, or other submissions, which are required by this Permit and IDAPA 58.01.05.012 [40 CFR § 270.5], shall be sent or given to the Director in duplicate by certified mail, express mail, or hand delivered at:

Director c/o Hazardous Waste Program Manager
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706-1255
Telephone No. (208) 373-0502

Twenty-four- (24) hour telephone number 1-800-632-8000

The address and telephone numbers listed above are current as of the effective date of this Permit and may be subject to change.

I.Z. DOCUMENTS TO BE MAINTAINED BY THE PERMITTEE(S)

I.Z.1. The Permittee shall maintain until closure is completed and certified by a registered, professional engineer (unless otherwise stated), the following documents as well as any/all amendments, revisions and/or modifications to these documents as follows:

I.Z.1.a. A complete copy of this Permit including attachments, tables and modifications.

I.Z.1.b. Waste Analysis Plan(s), for each HWMU of this Permit, as required by IDAPA 58.01.05.008 [40 CFR § 264.13] and this Permit;

I.Z.1.c. Operating Record, as required by IDAPA 58.01.05.008 [40 CFR § 264.73] and this Permit;

I.Z.1.d. Inspection Procedures, Schedules, Logs, Records and Results for each HWMU of this Permit, as required by IDAPA 58.01.05.008 [40 CFR §§ 264.15(b)(2) and 264.73(b)(5)] and this Permit, for a period of three (3) years.

I.Z.1.e. Personnel training requirements for each HWMU of this Permit, as required by IDAPA 58.01.05.008 [40 CFR § 264.16(d)] and this Permit, until closure is completed and certified by a registered, professional engineer, or for three (3) years from the date the employee left the facility.

I.Z.1.f. The site-wide Contingency Plan(s) for each HWMU of this Permit, as required by IDAPA 58.01.05.008 [40 CFR § 264.53(a)] and this Permit.

I.Z.1.g. Closure Plan(s) for each HWMU of this Permit, as required by IDAPA 58.01.05.008 [40 CFR § 264.112(a)] and this Permit.

I.Z.2. Documents, as specified by this Permit, may be maintained at INTEC records storage, records storage in Idaho Falls, and/or Electronic Document Management System (EDMS) Records Vault in a readily retrievable manner.

MODULE II - GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

II.A.1. The Permittee shall maintain and operate all Hazardous Waste Management Units on the INL to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous/mixed waste/debris or hazardous constituents to the air, soil, ground water, or surface water which could threaten human health and/or the environment.

II.A.2. The Permittee shall construct and/or maintain all HWMUs in accordance with the approved designs, specifications, and maintenance schedules that are included as Attachments 1 through 8 of this Permit. Minor deviations from the approved designs or specifications, necessary to accommodate proper construction and the substitution of equivalent or superior materials or equipment, shall be noted on the as-built drawings, and the rationale for those deviations shall be provided in narrative form. After completion of construction of each Hazardous Waste Management Unit, the Permittee shall submit final as-built drawings and the narrative report to the Director as part of the construction certification documentation specified in Permit Condition I.R.

II.A.3. The Permittee shall comply with all applicable requirements of the Land Disposal Restrictions (LDR) of IDAPA 58.01.05.011 [40 CFR Part 268] or the INL Site Treatment Plan (STP), as applicable and amended. Storage of mixed waste at INL, pending completion of LDR requirements pursuant to the STP, shall be considered in compliance with RCRA and HWMA requirements.

II.B. RECEIPT OF OFF-SITE HAZARDOUS WASTE

II.B.1. The Permittee shall not receive mixed waste generated off-site into the CSSF.

II.C. WASTE ANALYSIS PLAN

II.C.1. The Permittee shall comply with the procedures and requirements of the Waste Analysis Plan for the facility, in accordance with IDAPA 58.01.05.008 and 58.01.05.011 [40 CFR §§ 264.13 and 268.7] and Attachment 2 of this Permit, and as follows:

II.C.2. The Permittee shall collect and analyze representative samples of waste, in accordance with IDAPA 58.01.05.005, 58.01.05.008, and 58.01.05.011 [40 CFR Part 261, Appendix I and 40 CFR §§ 264.13(a) and 268.7] and Permit Condition I.O.3, as specified in Attachment 2 of this Permit.

II.C.3. The Permittee shall perform the analysis of each waste stream in accordance with the latest edition of *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846* (prevailing edition), *Standard Methods of Wastewater Analysis* (prevailing edition), or other or equivalent methods approved by the Director in accordance with Permit Condition I.O.4. of this Permit. At a minimum, the Permittee shall maintain proper functional instruments, use approved sampling and analytical methods, verify the validity

of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to perform analyses, the Permittee shall notify the laboratory in writing of the waste analysis conditions it is to meet in order that waste analysis conditions of the Permit are met.

II.C.4. The Permittee shall document the results of all waste analyses in the Facility Operating Records, in accordance with Permit Conditions I.Z.1.b. and II.J. of this Permit.

II.D. SECURITY

The Permittee shall comply with the Security Provisions of IDAPA 58.01.05.008 [40 CFR § 264.14] and the INL site-specific, security measures, as described in Attachment 3 of this Permit.

II.E. INSPECTION PLAN

The Permittee shall comply with Inspection Schedules and Logs included in Attachment 4 of this Permit. The Permittee shall comply with the inspection provisions of IDAPA 58.01.05.008 [40 CFR § 264.15], insomuch as ALARA concerns allow and as follows:

II.E.1. The Permittee shall maintain the inspection records and results, in accordance with Permit Condition I.Z.1.d. The Permittee shall record inspections on the appropriate inspection form(s) (examples are provided in Attachment 4 of this Permit) as specified in IDAPA 58.01.05.008 [40 CFR § 264.15(d)].

II.E.2. The Permittee shall record on the appropriate Inspection forms (required by Permit Condition II.E.1) as specified in IDAPA 58.01.05.008 [40 CFR § 264.15(d)]. At a minimum, the following shall be recorded:

- The date and time of the inspection;
- The name of the inspector;
- A notation of the observations made; and
- The date and nature of any repairs or other remedial actions.

II.E.3. The Permittee shall remedy (in accessible areas), as required by IDAPA 58.01.05.008 [40 CFR § 264.15(c)], any deterioration or malfunction discovered by an inspection.

II.E.3.a. The Permittee shall, for areas where deterioration or malfunction is discovered by an inspection, and is not accessible due to ALARA concerns, provide a verbal notification to the Director within twenty-four (24) hours. In addition, a written notification shall be provided within fifteen (15) days, and include the following information:

- The date the deterioration or malfunction was discovered
- The extent of the deterioration or malfunction
- An estimation of mixed wastes released (if any)

- Estimated time schedule to submit a permit modification addressing areas of the permit affected by the deterioration or malfunction (i.e. inspections, contingency plan, closure plan, training etc.)

II.E.4. The Permittee shall retain the Inspection forms required by Permit Condition II.E.1, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.73(b)(5)] and Permit Condition I.Z.1.d.

II.F. TRAINING PLAN

II.F.1. The Permittee shall comply with the Personnel Training Plan, included in Attachment 5 of this Permit and in accordance with IDAPA 58.01.05.008 [40 CFR § 264.16], until each HWMU is fully closed and certified.

II.F.2. The Permittee shall ensure that all personnel who handle mixed waste are trained in mixed waste management, safety, and emergency procedures, as applicable to their job description, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.16 (a)], and the Personnel Training Plan described above.

II.F.3. The Permittee shall maintain the Personnel Training Plan in Attachment 5 of this Permit and documentation of personnel training received, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.16(e)] and Permit Condition I.Z.1.e. of this Permit.

II.G. PREPAREDNESS AND PREVENTION

II.G.1. The Permittee shall operate each HWMU so as to minimize the possibility of a fire, explosion, or sudden or non-sudden releases to the air or soil that could threaten human health or the environment, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.31] and Attachment 6 of this Permit.

II.G.2. The Permittee, at a minimum, shall perform preventative maintenance and repair of the facility emergency equipment, safety devices, and miscellaneous equipment included in the attachments of this Permit, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.33] and the manufacturer's specifications. The Permittee shall maintain records of these preventative maintenance and repair activities on this equipment and schedules, reflecting minimum and planned performance of these preventative maintenance activities in the Operating Record at the facility, in accordance with Permit Condition I.Z.1.

II.G.3. The Permittee shall maintain access to the communications and alarm systems, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.34] and Attachment 6 of this Permit.

II.G.4. The Permittee must maintain each vault and tank system in a dry condition.

II.G.5. The Permittee shall maintain arrangements with state and local authorities, as required by IDAPA 58.01.05.008 [40 CFR § 264.37] and Attachment 7 of this Permit. If state or local officials refuse to enter into preparedness and prevention arrangements with the

Permittee for a given HWMU, the Permittee must document this refusal in the Operating Record for the excluded unit.

II.H. CONTINGENCY PLAN

Subject to Department concurrence ALARA concerns may necessitate deviation from the following Contingency Plan requirements.

II.H.1. The Permittee shall comply with the Contingency Plan provisions of IDAPA 58.01.05.008 [40 CFR 264 Subpart D, Contingency Plan and Emergency Procedures] as modified by the Contingency Plan in Attachment 7 and as follows:

II.H.2. The Permittee shall comply with the Contingency Plan included in Attachment 7 of this Permit.

II.H.3. The Permittee shall review and amend, as necessary, the Contingency Plan, within fourteen (14) calendar days of the following events:

II.H.3.a. This Permit is revised;

II.H.3.b. The plan fails in an emergency;

II.H.3.c. The Permittee changes the facility design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of mixed waste or mixed waste constituents, or changes the response necessary in an emergency;

II.H.3.d. The list of emergency coordinators changes;

II.H.3.e. The list of emergency equipment changes; or

II.H.3.f. There is a release of calcine from the bins to the vault to address the increased potential for exposure and release.

II.H.4. The Permittee shall assure that a trained Emergency Coordinator or equivalent is available at all times in case of an emergency, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.55].

II.H.5. The Permittee shall submit a copy of the Contingency Plan, and all revisions to the plan, to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.53(b)].

II.H.6. The point of contact for reporting emergencies to the State of Idaho shall be the State of Idaho Communications Center at (800) 632-8000 or (208) 846-7610, and Fax number (208) 846-7620

II.H.7. The Permittee shall document in the Facility Operating Record the time, date, and details of any incident that requires implementing the Contingency Plan. Within fifteen

(15) days after the incident, the Permittee shall submit a written report on the incident to the Director, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.56(j)] and Attachment 7 of this Permit. Said report shall include, at a minimum, the items in Permit Condition I.T.3. of this Permit.

II.I. MANIFEST SYSTEM

Not applicable to CSSF.

II.J. RECORD KEEPING AND REPORTING

In addition to the record keeping and reporting requirements specified elsewhere in this Permit, the Permittee shall comply with the following:

II.J.1. The Permittee shall maintain a written Operating Record at the INTEC Facility, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.73(a)], for all records identified in IDAPA 58.01.05.008 [40 CFR §§ 264.73(b)(1) through (b)(16)], as modified by Permit Condition I.Z.1.c.

II.J.2. The Permittee shall, by March 1 of each year, submit to the Director, a Waste Minimization Certification, pursuant to IDAPA 58.01.05.008 [40 CFR § 264.73(b)(9)], that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates, to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is the most practicable method currently available to the Permittee, which minimizes the present and future threat to human health and the environment. The certification shall address the entire INL, unless otherwise approved by the DEQ.

II.J.3. The Permittee shall, by March 1 of each even numbered year, submit to the Director, a biennial report covering the facility activities pursuant to IDAPA 58.01.05.008 [40 CFR § 264.75(a) through (j)]. The report shall address the entire INL, unless otherwise approved by the DEQ

II.J.4. The Permittee shall conduct and complete a source reduction evaluation review and written plan in accordance with the procedures and format provided in the “EPA Waste Minimization Opportunity Assessment Manual” (EPA/625/7-88/003). The review and plan shall be completed in compliance with Permit Condition II.J.5. of this Permit and include, at a minimum, the following general operating and reporting requirements.

II.J.4.a. The Permittee shall submit to the Director detailed descriptions of any programs that the Permittee may have to assist generators of hazardous waste in reducing the volume (quantity) and toxicity of wastes they produce.

II.J.4.b. The Permittee shall submit the following information to the Director and shall submit revisions or changes to the Director within thirty (30) calendar days after those revisions or changes:

II.J.4.c. A list of generators who received information from the Permittee according to Permit Condition II.J.4.a. of this Permit.

II.J.4.d. A list of generators who used the Permittee's contractor services on a Waste Minimization Program.

II.J.4.e. A list of generators known to the Permittee who have a Waste Minimization Program in place and any known results (i.e., has there been a reduction in wastes submitted for treatment, recycling, or disposal).

II.J.5. The Permittee shall submit a Waste Minimization Review and Plan, to the Director, March 31, 2019, March 31, 2023, March 31, 2027 and every four (4) years thereafter, in accordance with Permit Condition II.J.4. of this Permit. The review and plan shall address the entire INL, unless otherwise approved by the DEQ.

II.J.6. The Permittee shall submit a biennial report to the Director describing all efforts to remove and dispose the calcine currently stored in CSSF. This report is due two years after the Permit effective date and every two years thereafter.

II.J.7. All reports, notifications, applications, or other materials required to be submitted to the Director shall be submitted in accordance with Permit Conditions I.W. and I.Y. of this Permit.

II.K. COMPLIANCE SCHEDULE

II.K.1. The Permittee shall review and amend, as necessary, the Contingency Plans, within sixty (60) calendar days of obtaining new information concerning the handling of the calcined wastes.

II.K.2 Within thirty (30) days after a catastrophic failure of a bin, the Permittee shall provide DEQ a schedule outlining all actions to be taken to monitor the vaults effectiveness preventing the calcine from entering the environment. This schedule shall include but is not limited to additional permit modifications, the addition of monitoring equipment for surrounding soils, potential for removal etc..

II.L. CLOSURE

II.L.1. The Permittee shall meet the general closure performance standard, as specified in IDAPA 58.01.05.008 [40 CFR § 264.111] and Attachment 8, during partial and/or final closure of the CSSF units.

II.L.2. The Permittee shall perform a hazardous waste determination on all solid waste generated during closure including, but not limited to, contaminated process equipment, building components, tanks and ancillary equipment, scrap metal, etc., in accordance with IDAPA 58.01.05.006 [40 CFR § 262.11] and Attachment 2 of this Permit.

II.L.3. The Permittee shall amend the Closure Plan, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.112(c)] and Attachment 8 of this Permit.

II.M. EQUIVALENT INFORMATION

II.M.1. If administrative information (such as names, phone numbers, addresses) are specified in this Permit, the Permittee is hereby authorized to revise said lists provided the substitute has completed all requisite training prior to assuming responsibility. Such administrative changes shall not be considered a modification of this Permit and the change shall be documented in the administrative record. The format of tables, forms, and figures are not subject to the requirements of this Permit and may be revised at the Permittee's discretion.

Equipment replacement/maintenance or upgrade with functionally equivalent components (e.g., valves, pump, controls, etc.), which do not require a change to the permit conditions, permit attachments, or drawings, will be completed and documented under the work control process as maintenance activities under Permit Condition II.A.1., and do not require a modification of the permit.

II.M.2. If the Department determines that the substitution was not equivalent or superior to the original, it will notify the Permittee that the Permittee's claim of equivalency has been denied, the reasons for the denial, and that the original material or equipment must be used. If the product substitution is denied, the Permittee shall comply with the original approved product specification, find an acceptable substitution, or apply for a permit modification, in accordance with Permit Condition I.D.4.

II.N. CLOSURE COST ESTIMATE AND FINANCIAL ASSURANCE

The Permittee, as a federal facility, is exempt from the closure cost estimate and financial assurance requirements, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.140(c)].

II.O. LIABILITY REQUIREMENTS

The Permittee, as a federal facility, is exempt from the liability coverage for sudden and accidental occurrence requirements, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.140(c)].

MODULE III - TANK SYSTEM STORAGE

III.A. PERMITTED TANK SYSTEM STORAGE AREAS

Subject to the terms of this Permit, the Permittee may store hazardous wastes, specified in Permit Condition III.B of this Permit, in the following hazardous waste Storage Tank Systems, located and operated as indicated in Attachment 1 and this Permit.

III.A.1.

CSSF #1	**VAULT # CPP-741**
PROCESS CODES: S02	
DESCRIPTION:	Bin Set #1 contains four sets of three storage bins in an underground rectangular vault. Each set of bins is made up of type 405 stainless steel bins with spaces between each section. A carbon steel shell encloses the outermost bin with an air space between the bin and the shell. Each composite bin consists of two 20ft tall annular tanks and one 25ft tall center cylindrical tank.
TOTAL CAPACITY:	235m³
NOTES:	This unit was built in 1959. Last waste was added in 1964. This bin set only received wastes from the Waste Calcining Facility (WCF).

CSSF #2	**VAULT # CPP-742**
PROCESS CODES: S02	
DESCRIPTION:	Bin Set #2 contains 7 bins in a predominantly below ground level earthen covered cylindrical concrete vault. Six of the bins form a circle the seventh is in the center. Each bin is approximately 42ft (40' or 42' 6") tall and 12ft diameter and is constructed of 304 stainless steel.
TOTAL CAPACITY:	895m³
NOTES:	This unit was built in 1965. Last waste was added in 1972. Samples were removed from here in 1978. This bin set only received wastes from the WCF.

CSSF #3	**VAULT # CPP-746**
PROCESS CODES: S02	
DESCRIPTION:	Bin Set #3 contains 7 bins in a predominantly below ground level earthen covered cylindrical concrete vault. Six of the bins form a circle the seventh is in the center. The six outer bins are 53ft tall and 12ft diameter, the center bin is 61ft tall and 12ft diameter. Each bin is constructed of 304 stainless steel.
TOTAL CAPACITY:	1133m³
NOTES:	This unit was built in 1969. Last waste was added in 1981. This bin set only received wastes from the WCF.

CSSF #4		**VAULT #**	**CPP-760**
PROCESS CODES:	**S02**		
DESCRIPTION:	Bin Set #4 contains 3 bins in a partially below ground level cylindrical concrete vault. The bins are 55ft tall and 12ft diameter and are constructed of 304L stainless steel.		
TOTAL CAPACITY:	502m³		
NOTES:	This unit was built in 1976. Last waste was added in 1983. This bin set only received wastes from the New Waste Calcining Facility (NWCF).		

CSSF #5		**VAULT #**	**CPP-765**
PROCESS CODES:	**S02**		
DESCRIPTION:	Bin Set #5 contains 7 bins in a cylindrical concrete vault 1/2 below ground level. Six of the bins form a circle the seventh is in the center. These tanks are designed with open interior annulus. The bins are constructed of 304L stainless steel and are 50ft tall with a 12ft outer diameter and an 4 ft inner diameter.		
TOTAL CAPACITY:	1025m³		
NOTES:	This unit was built in 1978. Last waste was added in 1992. This bin set only received wastes from the NWCF.		

CSSF #6		**VAULT #**	**CPP-791**
PROCESS CODES:	**S02**		
DESCRIPTION:	Bin Set #6 contains 7 bins in a cylindrical concrete vault 1/2 below ground level. Six of the bins form a circle the seventh is in the middle. These 304L stainless steel tanks are designed with open interior annulus. The bins range in height from 67' 11.5" to 68' tall with outer diameter ranging from 13' 5" to 13' 6" and 5ft inner diameter.		
TOTAL CAPACITY:	1563m³		
NOTES:	This unit was built in 1980. Last waste was added in May 2000. This bin set only received wastes from the NWCF. The unit is also permitted to receive future waste transfers from other CSSF HWMUs.		

CSSF #7		**VAULT #**	**CPP-795**
PROCESS CODES:	**S02**		
DESCRIPTION:	Bin Set #7 contains 7 bins in a cylindrical concrete vault 1/2 below ground level. Six of the bins form a circle the seventh is in the middle. These 304L stainless steel tanks are designed with open interior annulus. The bins are 68ft tall with a 13.5ft outer diameter and 1ft inner diameter.		
TOTAL CAPACITY:	1784m³		
NOTES:	This unit was built in 1985. This bin set is currently empty and will be used for comparative vault and tank assessments and structural integrity. The unit is also permitted to receive future waste transfers from other CSSF HWMUs.		

III.B. PERMITTED AND PROHIBITED WASTE

The Permittee shall not store hazardous waste that is not identified in Permit Condition III.B.1 of this Permit. The Permittee may store mixed wastes in tanks, subject to the terms of this Permit and as follows:

III.B.1.

CSSF # 1	
Allowed Waste Types	Calcine from the WCF only
Hazardous Waste Codes	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134
Process Codes	S02
Maximum Volume	235m³
Tank construction material	405 Stainless steel plate
Activities Allowed	Storage of dry granular mixed waste only
Vault Description	Rectangular reinforced concrete 26' x 26' x 40' high on a 2' concrete slab. The roof consists of three concrete panels

CSSF # 2	
Allowed Waste Types	Calcine from the WCF only
Hazardous Waste Codes	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134
Process Codes	S02
Maximum Volume	895m³
Tank construction material	304 Stainless steel plate
Activities Allowed	Storage of dry granular mixed waste only
Vault Description	Cylindrical, 2ft thick reinforced concrete walls 50' diameter and 62' high on a 3' to 5' concrete slab. The roof is large pre-cast T beams overlain with a poured concrete slab.

CSSF # 3	
Allowed Waste Types	Calcine from the WCF only
Hazardous Waste Codes	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134
Process Codes	S02
Maximum Volume	1133m³
Tank construction material	304 Stainless steel plate
Activities Allowed	Storage of dry granular mixed waste only
Vault Description	Cylindrical, 2ft thick reinforced concrete walls 50' diameter and 67' high on a 3' to 5' concrete slab. The roof is large T pre-cast beams overlain with a poured concrete slab.

CSSF # 4	
Allowed Waste Types	Calcine from the NWCF only
Hazardous Waste Codes	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134
Process Codes	S02
Maximum Volume	502m³
Tank construction material	304L Stainless steel plate
Activities Allowed	Storage of dry granular mixed waste only
Vault Description	Cylindrical, 2ft to 3.5ft thick reinforced concrete walls 36' diameter and 70' high on a 4' 6" concrete slab. The roof is composed of pre-cast reinforced concrete beams overlain with a poured concrete slab.

CSSF # 5	
Allowed Waste Types	Calcine from the NWCF only
Hazardous Waste Codes	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134
Process Codes	S02
Maximum Volume	1025m³
Tank construction material	304L Stainless steel plate
Activities Allowed	Storage of dry granular mixed waste only
Vault Description	Cylindrical, 4ft thick reinforced concrete walls 55' diameter and 82' high on a 5' concrete slab. The roof is overlain with a poured concrete slab supported by pre-cast reinforced concrete T beams set on the vault walls.

CSSF # 6	
Allowed Waste Types	Calcine generated at INTEC
Hazardous Waste Codes	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134
Process Codes	S02
Maximum Volume	1563m³
Tank construction material	304L Stainless steel plate
Activities Allowed	Storage of dry granular mixed waste only
Vault Description	Cylindrical, 4ft thick reinforced concrete walls 52' diameter and 93' high on a 6' 6" concrete slab. The roof is composed of pre-cast reinforced concrete panels overlain with a poured concrete slab.

CSSF # 7	
Allowed Waste Types	Calcine generated at INTEC
Hazardous Waste Codes	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134
Process Codes	S02
Maximum Volume	1784m³
Tank construction material	304L Stainless steel plate
Activities Allowed	Storage of dry granular mixed waste only
Vault Description	Cylindrical, 4ft thick 56' diameter x 94' high reinforced concrete walls on a 6' 6" thick concrete slab. The roof is composed of pre-cast reinforced concrete panels overlain with a poured concrete slab.

III.C. VAULT SYSTEMS

The Permittee shall operate and maintain the Vaults that are capable of detecting and collecting releases, and which prevent any migration of waste to the soil, groundwater, or surface water during use of the tank systems.

III.D. TANKS AND TANK SYSTEM INSTALLATION

III.D.1. In accordance with IDAPA 58.01.05.008 [40 CFR § 264.192(b)and(g)], the Permittee shall obtain, and keep on file at the INTEC, written statements from a qualified, installation inspector or qualified, registered professional engineer attesting that proper installation procedures, for all tanks and tank systems, were used.

III.D.2. The tank system installation inspection(s) required by Permit Condition III.D.1. of this Permit shall include, but not be limited to, inspection of the system for the presence of any of the following items:

- Weld breaks;
- Punctures;
- Scrapes and Protective Coatings;
- Cracks;
- Corrosion; and/or
- Other Structural Damage or Inadequate Construction/Installation.

III.E. TANK SYSTEM OPERATING CONDITIONS

III.E.1. The Permittee shall prevent spills and overflows from the CSSF Tank Systems using the procedures and equipment described in Attachment 6 and this Permit.

III.E.2. The Permittee shall not place hazardous wastes or other materials in Tank Systems if they could cause any tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail.

III.F. RESPONSE TO LEAKS OR SPILLS

III.F.1. In the event of a leak or a spill from a tank system, or if a tank system becomes unfit for continued use, the Permittee shall complete the following actions:

III.F.1.a. Determine the cause of the release.

III.F.1.b. The Permittee shall notify the Director within twenty-four (24) hours providing the information in Permit Condition I.T.

III.F.1.c. The collected material is a HWMA hazardous waste and shall be managed in accordance with all applicable requirements of IDAPA 58.01.05.006 through .008 [40 CFR Parts 262 through 264]. If the collected material is released to the environment, it may be subject to reporting under 40 CFR Part 302.

III.F.1.d. Contain visible releases to the environment. The Permittee shall immediately conduct a visual inspection of all releases to the environment and based on that inspection, complete the following:

- Prevent further migration of the leak or spill to soils or surface water, and
- Remove and properly dispose of any visible contamination of the soil or surface water.

III.F.2. The Permittee shall establish a monitoring program in accordance with Permit Condition II.K.2. for the bin set/vault involved. This shall include but not be limited to the vault system, the air systems, and all surrounding media.

III.F.3. Within ninety (90) days the Permittee shall modify the closure plan to address the additional contamination of the vault and additional monitoring systems installed.

III.G. INSPECTION SCHEDULES AND PROCEDURES

III.G.1. The Permittee shall develop and maintain a schedule and procedures for inspecting the overfill controls, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.195(a)] and Attachment 4 of this Permit.

III.G.2. The Permittee shall inspect the tank systems, in accordance with the Inspection Schedule specified in Attachment 4 of this Permit, and shall comply with Permit Conditions III.G.3. and III.G.5. of this Permit, as part of those inspections.

III.G.3. The Permittee shall inspect the following (at least) once each twenty-four (24) hour operating period:

III.G.3.a. External and accessible portions of the vaults and ancillary equipment, to detect deterioration or releases of waste.

III.G.3.b. The area immediately surrounding the externally accessible portions of the piping, to detect erosion or signs of releases of hazardous waste.

III.G.3.c. Data gathered from CAMs and other monitoring and leak detection input to ensure tank systems are being operated according to design.

III.G.4. The Permittee shall document compliance with Permit Conditions III.G.3 and III.G.5 of this Permit and place this documentation in the Operating Record for the INTEC HWMA Unit, as required by Permit Conditions I.Z. and II.J. of this Permit.

III.G.5. The Permittee shall perform internal vault inspections as follows:

- The internal vault of bin sets 1 through 3, and filter vault of bin set 1 (via video camera) shall be inspected every fifth year (i.e., during calendar years 2021, 2026, etc.);
- The internal vault of bin sets 4 through 6 (via video camera) shall be inspected every fifth year (i.e., during calendar years 2017, 2022, etc.); and
- A complete inspection of bin set 7 -by entering the vault – shall be completed annually, until closure of all bin sets is completed or mixed waste has been received for storage into CSSF bin set 7.

III.G.6. The Permittee shall provide the video camera recording and a report summarizing the results within 4 months of internal vault inspection.

III.G.7. In conjunction with the report described in Permit Condition I.U., the Permittee shall provide a semi-annual report describing any earthquakes within the INL boundary that measure greater than 4.0 in magnitude on the Richter scale, as measured on the INL facility.

III.H. RECORD KEEPING AND REPORTING

III.H.1. Releases from tanks totally contained within the vault must be verbally reported to the Director, within twenty-four (24) hours of detection and shall be recorded in the Operating Record required by Permit Conditions I.Z. and II.J. of this Permit and shall include the date and time of detection of the release, tank identification, the name and title of the employee documenting the release, the size and amount of the release, and all actions taken.

III.H.2. The Permittee shall verbally report to the Director, within twenty-four (24) hours of detection, when a leak or spill from a tank system is released to a vault or the environment, in accordance with Permit Condition I.T. of this Permit.

III.H.3. In addition to complying with the requirements of Permit Condition I.T. of this Permit, within thirty (30) calendar days of detecting a release to the environment from a tank system, the Permittee shall report the following to the Director:

III.H.3.a. Likely route of migration of the release;

III.H.3.b. Characteristics of the surrounding soil (including soil composition, geology, and hydrogeology, taking into account possible climatic effects on the soil characteristics);

III.H.3.c. Results of any monitoring, sampling, or air dispersion modeling conducted in connection with the release;

III.H.3.d. Proximity of down gradient drinking water, surface water, and populated areas; and

III.H.3.e. Description of response actions taken or planned.

III.H.4. The Permittee shall obtain, and keep on file in the Operating Records as specified in Permit Conditions I.Z and II.J, the written statements by those persons required to certify the design and installation of the tank system(s), as specified in Permit Condition III.D.2. of this Permit, until the tank system is certified closed in accordance with Permit Condition II.L. of this Permit.

III.H.5. The Permittee shall document compliance with Permit Conditions III.H.2. and III.H.3. of this Permit by placing the documentation in the Operating Records for the INTEC HWMA Unit, required by Permit Condition II.J. of this Permit.

III.H.6. The Permittee shall keep on file in the Operating Record all qualified Professional Engineer certifications of major repairs (i.e., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel) until closure of the facility in accordance with Permit Condition II.L.

III.I. SPECIAL TANK PROVISIONS FOR IGNITABLE/REACTIVE WASTES

The Permittee shall not place ignitable, reactive or incompatible waste or materials in the tank systems.

MODULE IV - CORRECTIVE ACTION

IV.A. The corrective action requirements for these facilities are addressed in the previously issued Volume 18 (effective date: April 27, 2009), Module VIII.

IV.B. In the event that both the FFA/CO and the Final Partial-Permit for the Volume 18 for the Idaho National Laboratory are vacated, the Permittee shall submit a permit modification in accordance with Permit Condition I.D.4. of this Permit.

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TABLES

TABLE 1	
REQUIRED SUBMITTALS and DATES	
REQUIRED SUBMITTAL/DOCUMENT	**DUE DATES**
5 year reopener (Permit Condition I.G.1)	June 26, 2022
Permit Application re-application (Permit Condition I.G.2)	December 28, 2026
Non-Compliance Report (Permit Condition I.U)	February 1 and August 1 every year
Waste Minimization Certification (Permit Condition II.J.2)	March 1 every year
Biennial Report (Permit Condition II.J.3)	March 1 even numbered years
Waste Minimization Report (Permit Condition II.J.4)	March 31, 2019, 2023, 2027
Calcine Disposition Biennial Report (Permit Condition II.J.6)	June 26, 2019, 2021, 2023, 2025,