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LIST OF ATTACHMENTS

The following documents are excerpts from the Permittee's Administrative Record, *i.e.*, Volume 17 and Volume 18 of the INEEL Applications, 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 VII), and thereby supersede the language of the original Attachments. These incorporated Attachments are enforceable conditions of this Permit as modified by the specific permit condition. Due to their voluminous nature, the Department has developed a Table of Contents for each Attachment.

ATTACHMENT 1 FACILITY and PROCESS DESCRIPTION, consisting of:

GENERAL DESCRIPTION of the IDAHO NATIONAL ENGINEERING and ENVIRONMENTAL LABORATORY, Volume 3, Book 1, Pages B-1 through B-11, of the Part B Permit Application, Revision 7, dated May 2001, and page B-12 dated November 18, 2003.

INEEL PART A PERMIT APPLICATION, Volume 18, Book 1, Pages 1 through 3 on EPA Form 8700-23 (OMB#: 2050-0175) and Pages 1 through 6 on EPA Form 8700-23 (OMB#: 2050-0034) that includes waste codes for the NWCF Debris Storage on Pages IA-1; NWCF Debris Treatment on Page IB-1; NWCF HEPA Filter Leaching System on Page IC-1; NWCF Storage and Treatment Tanks on Page ID-1; FAST Debris Storage on Page IE-1, CPP-1617 Radioactive Mixed Waste Staging Facility on Pages IF-1 through IF-13, and CPP-1619 Hazardous Chemical & Radioactive Waste Storage Facility on Pages IG-1 through IG-13, Modified Date: November 18, 2003.

INEEL PART B PERMIT CERTIFICATION, Volume 18, Class 3 PMR for CPP-1617/-1619, Modified Date: September 3, 2003 and Class 2 PMR submitted July 2003, Modified Date: November 18, 2003

FACILITY DESCRIPTION, Section B, Pages i through 1 and page 12 of Volume 18, Modified Date: November 18, 2003 and pages 2 through 11 and pages 13 through 16 Modified Date: September 3, 2003

FACILITY PHOTOS, Section B, Pages 1 through 25 of Volume 18, Modified Date: September 3, 2003

BUILDING CPP-659/-1659 DESIGN DATA DRAWINGS, Drawing Numbers: 056381, Revision 22; 1495-CPP-659-C-313, Revision 6, (Index Number 132464); 1495-CPP-659-S-239, Revision 2, (Index Number 134621); 1495-CPP-659-C-227, Revision 2, (Index Number 132378); 1495-CPP-659-C-394, Revision 1, (Index Number 132545); 1495-CPP-659-E-120, Revision 20, (Index Number 133446); 384870, Revision 8; 1495-CPP-659-V-123, Revision 1, (Index Number 132797); 1495-CPP-659-V-129, Revision 1, (Index Number 132799); 444389, Revision 6; and 097877, Sheets 1 and 2, Revision 1 of Volume 18, Modified Date: September 3, 2003.

BUILDING CPP-666 DESIGN DATA DRAWINGS, Drawing Numbers 1560-CPP-666-P-20, Revision 3, (Index Number 142644); and 1560-CPP-666-M-25, Revision 4, (Index Number 142404) of Volume 18, Modified Date: September 3, 2003.

PROCESS DESCRIPTION, Section D, Pages i, 2, 4, 8, 17, 20, 21, 51, and 57 Modified Date: November 18, 2003 and pages ii, iii, 1, 3, 5 through 7, 9 through 16, 18 through 19, 22 through 50, 52 through 56, and 58 through 82, of Volume 18, Modified Date: September 3, 2003.

CONTAINMENT MATRIX FOR CPP 659, Section D, Appendix D-1, Pages i through 3, of Volume 18, Modified Date: September 3, 2003.

CPP-659 VENT SCRUBBER AND HVAC SYSTEMS, Section D, Appendix D-2, Pages i through 2, of Volume 18, Modified Date: September 3, 2003.

MAKEUP OF DEBRIS TREATMENT SOLUTIONS, Section D, Appendix D-3, Pages i through 4, of Volume 18, Modified Date: September 3, 2003.

ATTACHMENT 1a FACILITY and PROCESS DESCRIPTION, consisting of:

FACILITY DESCRIPTION, Section B, Pages i through 6 of Volume 18, Modified Date: September 3, 2003.

FACILITY PHOTOS, Section B, Pages 1 through 24 of Volume 18, Modified Date: September 3, 2003.

BUILDING CPP-1619 DESIGN DATA DRAWINGS, see Volume 17 Permit Application, Index Numbers (169060 - Revision 2), (169065 - Revision 2), (169071 - Revision 6), (169072 -Revision 2), and (169079 - Revision 1).

PROCESS DESCRIPTION, Section D, Pages i through 18 of Volume 18, Modified Date: September 3, 2003.

ATTACHMENT 2 WASTE ANALYSIS PLAN consisting of:

WASTE ANALYSIS PLAN, Section C, Pages i, iii, 3, 4, 17, 22, 28 through 30, 32, 41, 42, and 44 of Volume 18, Modified Date: November 18, 2003, and pages ii, 1, 2, 5 through 16, 18 through 21, 23 through 27, 31, 33 through 40, 43, and 45 through 47 of Volume 18, Modified Date: September 3, 2003.

DECISION TREE FOR PRETREATMENT AND POSTTREATMENT DEBRIS ANALYSIS, Appendix C-1, Pages i through 1 of Volume 18, Modified Date: September 3, 2003.

WASTE DETERMINATION AND DISPOSITION FORM, Appendix C-2, Pages i through 4, of Volume 18, Modified Date: September 3, 2003.

ATTACHMENT 3 SECURITY, consisting of:

PROCEDURES TO PREVENT HAZARDS, Section F, Pages i through 1 of Volume 18, Modified Date: September 3, 2003

SECURITY, Section F-1, Pages 1 through 3 of Volume 18, Modified Date: September 3, 2003.

ATTACHMENT 4 INSPECTIONS, consisting of:

INSPECTIONS SCHEDULE, Section F-2, Pages i, 1, 2, and 5, of Volume 18, Modified Date: November 18, 2003 and pages 3, 4, and 6 through 9 of Volume 18, Modified Date: September 3, 2003.

INSPECTION SCHEDULE AND FORMS FOR CPP-659/-1659 STORAGE, Appendix F-1, Pages i, 1, and 3 through 30 of Volume 18, Modified Date: November 18, 2003 and page 2 of Volume 18, Modified Date: September 3, 2003.

INSPECTION SCHEDULE AND FORMS FOR FDP CELL CONTAINER STORAGE, Appendix F-2, Pages i, 1, and 3 through 15 of Volume 18, Modified Date: November 18, 2003 and page 2 of Volume 18, Modified Date: September 3, 2003.

INSPECTION SCHEDULE AND FORMS FOR DEBRIS TREATMENT PROCESSES, Appendix F-3, Pages i, and pages 5 through 27 of Volume 18, Modified Date: November 18, 2003 and pages 1 through 4 of Volume 18, Modified Date: September 3, 2003.

INSPECTION/MONITORING SCHEDULE AND FORMS FOR TANKS VES-NCD-123 AND VES-NCD-129, Appendix F-4, Pages i through 11 of Volume 18, Modified Date: November 18, 2003.

INSPECTION SCHEDULE AND FORMS FOR RMWSF AND HCRWSF CONTAINER STORAGE, Appendix F-5, Pages i through 11 of Volume 18, Modified Date: September 3, 2003.

ATTACHMENT 5 PERSONNEL TRAINING, consisting of:

PERSONNEL TRAINING, Section H, Pages i through 10 of Volume 18, Modified Date: September 3, 2003.

ATTACHMENT 6 PROCEDURES TO PREVENT HAZARDS, consisting of:

PREPAREDNESS and PREVENTION DOCUMENTATION, Sections F-3 through F-5, Pages i, ii, 4, 6, 8, 11, and 15 of Volume 18, Modified Date: November 18, 2003 and pages 1 through 3, 5, 7, 9 through 10, 12 through 14, and pages 16 through 17 of Volume 18, Modified Date: September 3, 2003.

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APPENDIX F-1, Hydrodynamic and Structural Analysis of Flood Hazards at CPP-659 During a Peak Flow in the Big Lost River, Pages i through 15 of Volume 18, Modified Date: September 3, 2003.

APPENDIX F-2, Hydrodynamic and Structural Analysis of Flood Hazards at CPP-1619 During a Peak Flow in the Big Lost River, Pages i through 10 of Volume 18, Modified Date: September 3, 2003.

- ATTACHMENT 7** CONTINGENCY PLANS, consisting of:
- INTEC CONTINGENCY PLAN, Section G, Pages i through 43 of Volume 18, Modified Date: November 18, 2003.
- ATTACHMENT 8** CLOSURE PLANS, consisting of:
- CLOSURE AND POSTCLOSURE REQUIREMENTS, Section I, Pages i through 20 of Volume 18, Modified Date: September 3, 2003.
- ATTACHMENT 8a** CLOSURE PLANS, consisting of:
- CLOSURE AND POST CLOSURE REQUIREMENTS, Section I, Pages i through 8 of Volume 18, Modified Date: September 3, 2003.
- ATTACHMENT 9** WASTE PILE DESIGN EXEMPTION, consisting of:
- REQUEST FOR WAIVER TO DESIGN AND OPERATING REQUIREMENTS FOR WASTE PILES, Pages i, 1, and 4 of Volume 18, Modified Date: November 18, 2003 and pages 2 through 3 and 5 through 9 of Volume 18, Modified Date: September 3, 2003.
- ATTACHMENT 10** PERMIT REVISION LOG
- Page 1 of Volume 18, Modified Date: November 18, 2003.

DEFINITIONS

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

- a. "Application" shall mean the following:
 - Volume 1, Books 1 and 2, INEEL-Wide Part A Application, Revision 22, November 22, 1999.
 - Volume 3, Books 1 and 2, Revision 6, July 1993, INEEL-Wide RCRA Part B Application, Parts B, F, J, K, and L.
 - Volume 18, Books 1 and 2, Revision 3, December 1999, Debris Treatment Processes, Holdup and Collection Tanks, CPP-659/-1659 Storage, and Flourinel Dissolution Process (FDP), Cell Container Storage.
- b. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986.
- 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 federal or state holiday shall be due on the following business day.
- d. "Debris" means solid material exceeding a 60 mm particle size that is intended for disposal and that is: a manufactured object; or plant or animal matter; or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in Subpart D, Part 268, namely lead acid batteries, cadmium batteries, and radioactive lead solids; Process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and Intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume. A mixture of debris that has not been treated to the standards provided by § 268.45 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.
- e. "Department" shall mean the Idaho Department of Environmental Quality.
- f. "Director" shall mean the Director of the Department of Environmental Quality, or his designee, or authorized representative.
- g. "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.
- h. "DOE" shall mean the United States Department of Energy.

- i. "Facility" shall mean all contiguous land, structures, other appurtenances, and improvements under the control of the Department of Energy at the Idaho National Engineering and Environmental Laboratory for a total of approximately 890 square miles, or 601,260 acres. The metes and bounds of the INEEL are set forth in the November 21, 1989, Federal Register at 54 FR48184.
- j. "HSWA" shall mean the Hazardous and Solid Waste Amendments of 1984.
- k. "HWMA" shall mean the State of Idaho, Hazardous Waste Management Act of 1983, as amended.
- l. "Hazardous and/or Mixed Waste and Debris" shall mean any combination of hazardous waste, mixed waste, hazardous debris, or mixed debris.
- m. "Hazardous debris" means debris that contains a hazardous waste listed in 40 CFR Part 261, or that exhibits a characteristic of hazardous waste identified in 40 CFR Part 261.
- n. "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 Public Law 98-616 Section 1004(5)].
- o. "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).
- p. "Hazardous Waste Management Unit" shall mean those operable units subject to the requirements of IDAPA 58.01.05.012 [40 CFR § 270.14-.25].
- q. "IDAPA" shall mean the Idaho Administrative Procedures Act, Chapter 52, Title 67, Idaho Code.
- r. "INEEL" shall mean the Idaho National Engineering and Environmental Laboratory, the Facility.
- s. "Mixed Debris" shall mean debris that is both hazardous and radioactive.
- t. "Mixed Waste" shall mean waste that is both hazardous and radioactive.
- u. "Off-Site" shall mean off the "facility" as defined in Subpart i of this section.

- v. "Operator" shall mean the DOE Designated Contractor that has operational responsibilities and control of the HWMU. The DOE Designated Contractor, as operator for INEEL, is Bechtel BWXT Idaho, LLC (BBWI). BBWI reports to the DOE-ID.
- w. "On-Site" shall mean on the "facility" as defined in Subpart h of this section.
- x. "Owner" shall mean the United States Department of Energy (DOE).
- y. "Permittee" shall mean both the DOE, as owner, and the DOE Designated Contractor.
- z. "RCRA" shall mean the Resource Conservation and Recovery Act of 1976, as amended by HSWA in 1984.
- aa. "Release" shall mean any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous and/or mixed wastes (including hazardous and/or mixed waste constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous and/or mixed wastes or hazardous and/or mixed waste constituents).
- bb. "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, .008, and .010 through .013 (40 CFR Parts 260, 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.

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ACRONYMS AND ABBREVIATIONS

ACI	American Concrete Institute
AEA	Atomic Energy Act
AISC	American Institute of Steel Construction
ALARA	As Low As Reasonably Achievable (Radiation Exposures)
ANSI	American National Standards Institute
APHA	American Public Health Association
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AVAS	Automatic Voice Annunciating System
AWS	American Welding Society
BBWI	Bechtel BWXT Idaho, LLC
BTU	British Thermal Unit
CBT	Computer Based Training
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFA	Central Facilities Area
cfm	Cubic Feet per Minute
CFR	Code of Federal Regulations
CH-TRU	Contact Handled Transuranic (elements)
CP	Contingency Plan
CPP	Chemical Processing Plant
°	Degrees
D&D	Decontamination and Decommissioning
DEQ	Department of Environmental Quality
DMS	Data Management System
DOE	Department of Energy
DOE-ID	Department of Energy - Idaho Falls Field Office
DOT	Department of Transportation
DQO	Data Quality Objective
DTU	Debris Treatment Unit
DU	Depleted Uranium
EAL	Emergency Action Level
EAM	Emergency Action Manager
EC	Emergency Coordinator
ECC	Emergency Command Center
ED	Emergency Director
EMT	Emergency Medical Technician
ENS	Emergency Notification System
EOC	Emergency Operations Center
EP	Emergency Plan
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EPIP	Emergency Plan Implementing Procedures

ERO	Emergency Response Organization
ES&H	Environmental, Safety, and Health
FAST	Flourinel Dissolution Process and Fuel Storage
'	Feet or Minutes
FD	Fire Department
FDP	Fluorinel Dissolution Process
FFA/CO	Federal Facilities Agreement/Consent Order
FFCA	Federal Facilities Compliance Act of 1992
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FS	Facility Supervisor
GC	Gas Chromatograph
gpm	Gallons per Minute
HCRWSF	Hazardous Chemical and Radioactive Waste Storage Facility
HDPE	High-density Polyethylene
HEPA	High-Efficiency Particulate Air
HFLS	HEPA Filter Leaching System
HLLWE	High Level Liquid Waste Evaporator
HOC	Halogenated Organic Compound
HP	Health Physics (Or Health Physicist)
HSP	Health and Safety Plan
HSWA	Hazardous and Solid Waste Amendments of 1984
HVAC	Heating, Ventilation, and Air Conditioning
HWMA	Hazardous Waste Management Act of 1983, as amended
HWMU	Hazardous Waste Management Unit
HWN	Hazardous Waste Numbers
"	Inch(es) or Seconds
IDENT	Identification
IDHW	Idaho Department of Health and Welfare
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
IRT	Incident Response Team
IWTS	Integrated Waste Tracking System
LDR	Land Disposal Restrictions
LEPC	Local Emergency Planning Committee
LLW	Low-Level Waste
M&O	Management and Operations
MOU	Memorandum of Understanding
MSDS	Material Safety Data Sheet
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
No.	Number
NRC	Nuclear Regulatory Commission
NWCF	New Waste Calcining Facility
OJT	On-the-Job Training
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyl

PE	Professional Engineer
PEWE	Process Equipment Waste Evaporator
PM	Preventive Maintenance
ppm	Parts per Million
POTW	Publicly Owned Treatment Works
PPE	Personal Protective Equipment
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RA	Radiological Assay
RCRA	Resource Conservation and Recovery Act
RCT	Radiological Control Technician
RH	Remote Handled
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RMWSF	Radioactive Mixed Waste Staging Facility
RWMIS	Radioactive Waste Management Information System
SAP	Sampling and Analysis Plan
SAT	Systematic Approach to Training
SARA	Superfund Amendments and Reauthorization Act of 1986
SCBA	Self Contained Breathing Apparatus
SOP	Standard Operating Procedure
SPCC	Spill Prevention, Control, and Countermeasures
SPERT	Special Power Excursion Reactor Test
SRC	Shipment Request and Certification
SS	Shift Supervisor
SST	Stainless Steel Tray
SW-846	Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
SWMU	Solid Waste Management Unit
TCLP	Toxicity Characteristic Leaching Procedure
TFF	Tank Farm Facility
TLD	Thermoluminescent Dosimeter
TMI	Three-Mile Island
TOC	Total Organic Carbon
TRA	Test Reactor Area
TSCA	Toxic Substances Control Act
TSD	Treatment, Storage, and/or Disposal
TSS	Total Suspended Solids
UBC	Uniform Building Code
UL	Underwriters Laboratories
UPS	Uninterruptible Power Supply
USGS	United States Geological Survey
VO	Volatile Organic
VOC	Volatile Organic Compound
WAC	Waste Acceptance Criteria
WAP	Waste Analysis Plan
WCC	Warning Communications Center

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WDDF	Waste Determination and Disposition Form
WERF	Waste Experimental Reduction Facility
WIPP	Waste Isolation Pilot Project
WROC	Waste Reduction Operations Complex
WTS	Waste Technical Specialist

MODULE I - STANDARD PERMIT CONDITIONS

I.A. EFFECT OF PERMIT

The Permittee is allowed to store hazardous and mixed debris and/or waste in accordance with the conditions of this Partial Permit. The Permittee may also treat hazardous and mixed debris in accordance with the conditions of this Partial Permit. Any storage or treatment of hazardous and mixed debris and/or 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 the requirements not included in this Permit, which become effective by future statute or regulatory changes, to include those requirements promulgated under IDAPA 58.01.05.011 [40 CFR Part 268] restricting the placement of hazardous and/or mixed 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 law or regulations.

I.A.1. DOE is the owner and is responsible for the activities that include policy, programmatic, funding and scheduling decisions, as well as general oversight.

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 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 a fine of not more than ten

thousand dollars (\$10,000) 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.
- 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 INEEL 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 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.

I.E. SEVERABILITY

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.F. DUTIES 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.

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 CERCLA [42 U.S.C. §§ 9604, 9606(a), or 9607], as amended by the Superfund Amendments and Reauthorization Act of 1986, 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. DUTY TO REAPPLY

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a new application a minimum of one hundred eighty (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)].

I.H. PARTIAL-PERMIT EXPIRATION

Except as renewed, modified, revoked, reissued, or terminated by the Department, this Permit shall automatically expire eight and one half (8.5) years from the effective date of this Permit on June 5, 2009.

I.I. CONTINUATION OF EXPIRING PERMIT

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.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.

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.

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.

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.

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, upon 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, at reasonable times, 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 [40 CFR § 264.73(b)(9)], 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.
- I.O.2. Pursuant to IDAPA 58.01.05.012 [40 CFR § 270.30(j)(3)], records of monitoring information shall specify:
 - 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.2.e. The analytical techniques or methods used; and
 - I.O.2.f. The results of such analyses, including the Quality Assurance/Quality Control summary.
- I.O.3. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the debris and/or 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 those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846 (hereinafter, referred to as SW-846), Standard Methods for the Examination of Water and Wastewater (prevailing edition), or other 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 may substitute analytical methods, which are equivalent or superior to those specifically approved for use in this Permit, in accordance with the following:

I.O.4.a. The Permittee submits to the Director a request for substitution of analytical method(s) specifically approved for use in this Permit. 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 as soon as possible to the Director of 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 or treatment of hazardous and mixed debris and/or 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-delivered 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 INEEL 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 and/or mixed waste and debris or treatment of hazardous and mixed debris 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(I)(6)], the Permittee shall verbally report to the Idaho State Communications Center any noncompliance with this Permit which may endanger human health or the environment, within twenty-four (24) hours from the time the Permittee becomes aware of the 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 mixed waste that may endanger public drinking water supplies; or

I.T.1.c. A release or discharge of mixed waste, or of a fire or explosion at the INEEL 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 the 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 fully, 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.2. of this Permit, the Permittee shall provide to the Director a written submission.

I.T.3.a. The written submission shall include, but not be limited to, the following:

- Name, address, and telephone number of the 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 INEEL, 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 all other instances of noncompliance not otherwise required to be reported, in accordance with Permit Condition I.T. of this Permit, on a semi-annual basis from the effective date of the Permit. The reports shall contain the information, as applicable, 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.

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].

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 to:

Director
DEQ
1410 North Hilton
Boise, Idaho 83706-1255
Telephone No. (208) 373-0502

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

The addresses 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 AT THE FACILITY

I.Z.1. The Permittee shall maintain until closure is completed and certified by an independent, registered, professional engineer, the following documents and amendments and revisions or modifications to these documents:

I.Z.1.a. A complete copy of this Permit including Attachments and Tables.

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, and Records for each HWMU of this Permit, as required by IDAPA 58.01.05.008 [40 CFR § 264.15(b)(2), 264.73(b)(5)] and this Permit.
- I.Z.1.e. Personnel training requirements for each position, and personnel training records for each individual involved with management or treatment of mixed and hazardous waste at each HWMU in this Permit, as required by IDAPA 58.01.05.008 [40 CFR § 264.16(d)] and this Permit.
- I.Z.1.f. The Site-wide Contingency Plan and 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 that are greater than three (3) years old, may be maintained at an alternative location (e.g., records storage in Idaho Falls and/or EDMS records vault) in a readily retrievable manner. These documents may be maintained solely using an electronic format, as long as the documents are readily retrievable to obtain a printed hard copy.

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MODULE II - GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

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

II.A.2. The Permittee shall construct and/or maintain all Hazardous Waste Management Units in accordance with the approved designs, specifications, and maintenance schedules that are included as Attachments 1 through 9 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 or modification of each new 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 of IDAPA 58.01.05.011 [40 CFR § 268].

II.B. RECEIPT OF HAZARDOUS AND/OR MIXED WASTE AND DEBRIS

II.B.1. The Permittee shall not accept hazardous and/or mixed waste and debris generated off-Site that has not been verified in accordance with the waste analysis plan requirements of IDAPA 58.01.05.008 [40 CFR § 264.13(c)].

II.B.2. The Permittee may receive hazardous and/or mixed waste and debris as follows:

II.B.2.a. The Permittee shall only receive hazardous waste and hazardous debris in containers with a design capacity smaller than 0.1 m³, or

II.B.2.b. The Permittee shall only receive hazardous waste and hazardous debris that is exempt from IDAPA 58.01.05.008 (40 CFR 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).

II.B.3. The Permittee may accept hazardous and/or mixed waste and debris generated within the INEEL Facility boundaries in accordance with the Part A in Attachment 1 of this Permit, and the waste acceptance criteria in Attachment 2 of this Permit.

- II.B.4. The Permittee may receive off-Site waste as follows:
- II.B.4.a. The Permittee shall only receive off-Site waste in accordance with the Part A in Attachment 1 of this Permit, and the waste acceptance criteria in Attachment 2 of this Permit.
- II.B.4.b. The Permittee shall receive and verify off-Site waste in accordance with IDAPA 58.01.005.008 [40 CFR § 264.13(a)(4)], and Attachments 1 and 2 of this Permit.
- II.B.4.c. The Permittee may receive off-Site wastes, which have been previously verified at the generator's site, in accordance with Attachments 1 and 2 of this Permit.
- II.B.5. The Permittee may receive shipments from DOE-related, conditionally exempt small quantity generators provided the Permittee accepts responsibility as the generator of the waste.
- II.B.6. When the Permittee is to receive hazardous and/or mixed waste from an off-site source (except where the Permittee is also the generator), the Permittee shall inform the generator (in writing) that the Permittee has the appropriate permit(s) for, and shall accept, the waste the generator is shipping.
- II.B.7. The Permittee shall keep copies of the written notices, and all other documents associated with acceptance of off-site mixed and hazardous waste streams required by Permit Condition II.B.4.a.
- II.B.8. The Permittee may reject, and return to the generator, entire shipments or single containers of waste that are not in accordance with the waste characterization, the manifest, or the specific container requirements specified in Attachment 2 of this Permit.

II.C. WASTE ANALYSIS PLAN

- The Permittee shall comply with the procedures and requirements of the Waste Analysis Plan provisions, 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.1. The Permittee shall collect representative samples of waste to be analyzed in accordance with IDAPA 58.01.05.005, 58.01.05.008, and 58.01.011 (40 CFR Part 261, Appendix I and 40 CFR § § 264.13(a) and 268.7), and as specified in Attachment 2 of this Permit.
- II.C.2. 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, EPA Publication SW-846, Standard Methods for the Examination of Water and Wastewater (prevailing edition), or equivalent method 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.D. SECURITY

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

II.E. INSPECTION PLAN

The Permittee shall comply with the inspection provisions of IDAPA 58.01.05.008 [40 CFR § 264.15] and as follows:

- II.E.1. The Permittee shall maintain the Inspection Schedules and Logs, in accordance with Permit Condition I.Z.1.d. and I.Z.2.
- II.E.2. The Permittee shall comply with the Inspection Schedules and Logs for the INEEL, as included in Attachment 4 of this Permit.
- II.E.3. The Permittee shall remedy, as required by IDAPA 58.01.05.008 [40 CFR § 264.15(c)], any deterioration or malfunction discovered by an inspection.
- II.E.4. The Permittee shall retain the inspection procedures, schedules, logs and records required by Permit Condition II.E.1., in accordance with Permit Condition I.Z.1.d. and I.Z.2. of this Permit.
- II.E.5. The Permittee shall record inspections on the Inspection Logs and Inspection Log Sheets, 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 information 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.F. TRAINING PLAN

- II.F.1. The Permittee shall comply with the INEEL Personnel Training Plan, as 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 hazardous/mixed waste are trained in hazardous/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] and the Personnel Training Plan included in Attachment 5 of this Permit.
- 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. and I.Z.2. of this Permit.

II.G. PREPAREDNESS AND PREVENTION

The Permittee shall comply with the Preparedness and Prevention Provisions of IDAPA 58.01.05.008 [40 CFR § 264 Subpart C] and as follows:

- II.G.1. The Permittee shall operate the permitted INTEC Units so as to minimize the possibility of a fire, explosion or sudden or non-sudden releases to the air or soil, which 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. At a minimum, the Permittee shall perform preventative maintenance and repair of the INEEL 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.c. and I.Z.2. of this Permit.
- 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 shall maintain arrangements with state and local authorities, in accordance with 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.G.5. The Permittee shall maintain the aisle space necessary to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and

decontamination equipment, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.35] and Attachment 6 of this Permit.

Due to restricted personnel and emergency equipment access and the waste type stored, it is not necessary to maintain adequate aisle space in Room 205 (Hot Sump Tank Removal and Access Cell), Room 216 (Filter Cell/Valve Cubicle), and Room 306 (Equipment Decon Storage Room) in Building CPP-659/-1659 and the FDP Cell in Building CPP-666.

II.H. CONTINGENCY PLAN

The Permittee shall comply with the Contingency Plan matrix provisions of IDAPA 58.01.05.008 [40 CFR § 264 Subpart D] and as follows:

- II.H.1. The Permittee shall comply with the Contingency Plan included in Attachment 7 of this Permit.
- II.H.2. The Permittee shall review and amend, as necessary, the Contingency Plan, pursuant to IDAPA 58.01.05.008 and IDAPA 58.01.05.012 (40 CFR §§ 264.54 and 270.42) and Permit Conditions I.D.4. and I.D.5. of this Permit within fourteen (14) calendar days of the following events:
 - II.H.2.a. This Permit is revised;
 - II.H.2.b. The plan fails in an emergency;
 - II.H.2.c. The Permittee changes the INEEL 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.2.d. The list of emergency coordinators changes; or
 - II.H.2.e. The list of emergency equipment changes.
- II.H.3. 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] and Attachment 7 of this Permit.
- II.H.4. 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)] and Attachment 7 of this Permit.

II.H.5. The Permittee shall document in the Facility Operating Record the time, date, and details of any incident that requires implementing the Contingency Plan. Within 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.a. of this Permit.

II.I. MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of IDAPA 58.01.05.008 [40 CFR § 264, Subpart E].

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 INEEL, in accordance with Permit Condition I.Z.1.c., I.Z.2., and 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)].

II.J.2. The Permittee shall, by July 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 that most practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment.

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)].

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/626/7-88/003). The review and plan shall be completed in compliance with Permit Condition II.J 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 the Permittee may have to assist generators of hazardous waste in reducing the volume or 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. All reports, notifications, applications, or other materials, required to be submitted to the Director, shall be submitted in accordance with Permit Condition I.Y. of this Permit.
- II.K. CLOSURE
 - II.K.1. The Permittee shall meet the general closure performance standard, as specified in IDAPA 58.01.05.008 [40 CFR § 264.111], during closure of all permitted Hazardous Waste Management Units at the INTEC.
 - II.K.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.K.3. The Permittee shall amend the Closure Plans, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.112(c)] and Attachments 8 and 8a of this Permit whenever necessary.
- II.L. EQUIVALENT MATERIALS/INFORMATION
 - II.L.1. If certain equipment, materials, and administrative information (such as names, phone numbers, addresses) are specified in this Permit, the Permittee is hereby authorized to use equivalent or superior items. Use of such equivalent or superior items shall not be considered a modification of this Permit, but the Permittee shall place in the Operating Record (prior to the institution of such revision) the revision, accompanied by a narrative explanation, and the date the revision became effective. The Director may judge the soundness of the revision during inspections of the Facility, and take appropriate action. The format of tables, forms, and figures are not

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subject to the requirements of this Permit, and may be revised at the Permittee's discretion.

- II.L.2. If the Department determines that the substitution was not equivalent 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.

MODULE III - CONTAINER STORAGE AND CONTAINER TREATMENT

III.A. PERMITTED CONTAINER STORAGE AND CONTAINER TREATMENT AREAS

Subject to the terms of this Permit, the Permittee may store and treat hazardous and mixed debris and/or hazardous and mixed waste, as specified in Permit Condition III.B. of this Permit, in the container storage and treatment areas of the following buildings:

- III.A.1. The New Waste Calcine Facility (NWCF), Building CPP-659/1659. CPP-659 is a six-level building constructed of steel-reinforced concrete, and is approximately 250' long by 145' wide. CPP-1659 is annexed to the west wall of CPP-659 and consists of a single, ground-level floor measuring approximately 56' 7" long by 34' wide. The building is further described in Attachment 1 of this Permit.
- III.A.2. The Flourinel Dissolution Process and Fuel Storage (FAST) Facility, Building CPP-666. The FAST is a multiple-level, steel-reinforced concrete structure approximately 571' long by 196' wide. The building is further described in Attachment 1 of this Permit.
- III.A.3. The Radioactive Mixed Waste Staging Facility (RMWSF) consists of a 40 ft x 20 ft (CPP-1617) metal building and a 227 ft x 280 ft partially paved, fenced external storage area. The RMWSF and Building CPP-1617 are further described in Attachment 1a of this Permit.
- III.A.4. Hazardous Chemical and Radioactive Waste Storage Facility (HCRWSF), Building CPP-1619. The HCRWSF's storage building consists of five (5) bays and an office. All storage bays are concrete and coated with a chemical resistant coating. The building is further described in Attachment 1a of this Permit.

III.B. PERMITTED AND PROHIBITED WASTES IN THE CONTAINER STORAGE AND CONTAINER TREATMENT AREAS

III.B.1. Container Storage Units in the NWCF

The Permittee may provide container storage in the NWCF for those wastes identified for container storage in Attachment 1 of this Permit, and as follows:

III.B.1.a. Storage of hazardous and/or mixed waste and debris is authorized as follows:

- III.B.1.a.(1) The Permittee shall only store hazardous waste and hazardous debris in containers with a design capacity smaller than 0.1 m³, or

III.B.1.a.(2) The Permittee shall only store hazardous waste and hazardous debris that is exempt from IDAPA 58.01.05.008 (40 CFR 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).

III.B.1.b. Storage of hazardous and/or mixed waste and debris containing free liquids is prohibited.

III.B.1.c. Waste must meet the unit-specific waste acceptance criteria in Attachment 2 of this Permit.

III.B.1.d. The maximum permitted capacity for container storage in the NWCF is 537,178 gallons, with the maximum waste volume for each room set as follows:

ROOM	MAXIMUM (S01) STORAGE VOLUME
Room 205 - Hot Sump Tank Removal & Access Cell	54,200 gallons
Room 206 - Adsorber Cell	12,400 gallons
Room 207 - Off-Gas Cell	11,600 gallons
Room 214 - Calciner Cell	9,800 gallons
Room 215 - Blend & Hold Cell	8,200 gallons
Room 216 - Filter Cell/Valve Cubicle	10,300 gallons
Room 218 - Manipulator (PaR) Parking Area	3,200 gallons
Room 306 - Equipment Decontamination Storage Room	4,800 gallons
Room 308 - Remote Decon Cell	5,800 gallons
Room 309 - Filter Handling Cell	4,800 gallons
Room 323 - Crane Maintenance & Transfer Area	3,400 gallons
Room 326 - Transfer Area	1,300 gallons
Room 415 - Low Level Decontamination Room	23,500 gallons
Room 416 - Shielded Storage Room	5,300 gallons
Room 417- Vehicle Entry Way	78,200 gallons
Room 418 - Equipment Decontamination Room	166,700 gallons
Room 419 - Transfer Room	26,400 gallons
Room 421 - Decontamination Room	10,039 gallons
Room 422 - Decontamination Room	10,039 gallons
CPP-1659 - Contaminated Equipment Maintenance Area	87,200 gallons

III.B.2. Container Storage Units in the FAST

The Permittee may provide container storage in the FAST for those wastes identified for container storage in Attachment 1 of this Permit, and as follows:

III.B.2.a. Storage of hazardous and mixed debris is authorized as follows:

- III.B.2.a.(1) The Permittee shall only store hazardous debris in containers with a design capacity smaller than 0.1 m³, or
- III.B.2.a.(2) The Permittee shall only store hazardous debris that is exempt from IDAPA 58.01.05.008 (40 CFR 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).
- III.B.2.b. Storage of hazardous and mixed debris containing free liquids is prohibited.
- III.B.2.c. Waste must meet the unit-specific waste acceptance criteria in Attachment 2 of this Permit.
- III.B.2.d. The maximum permitted capacity for container storage in the FAST is 37,300 gallons, with the maximum waste volume for each room set as follows:

ROOM	MAXIMUM (S01) STORAGE VOLUME
CPP-666 - FDP Cell	37,300 gallons

III.B.3. Container Storage Units in the RMWSF:

III.B.3.a. Storage of hazardous and mixed waste/debris is authorized as follows:

- III.B.3.a.(1) The Permittee shall only store hazardous waste/debris in containers with a design capacity smaller than 0.1 m³; or
- III.B.3.a.(2) The Permittee shall only store hazardous waste/debris that is exempt from IDAPA 58.01.05.008 (40 CFR 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).

III.B.3.b. Waste must meet the unit-specific waste acceptance criteria in Attachment 2 of this Permit.

III.B.3.c. The maximum permitted storage capacity for hazardous and mixed waste/debris at the RMWSF is 2,244,156 gallons, with the maximum waste volume for each area set as follows:

AREA	MAXIMUM (S01) STORAGE VOLUME
RMWSF (CPP-1617)	2,244,156 gallons

III.B.3.d. The Permittee may not store containers containing ignitable liquids in the heated cargo containers within the CPP-1617 fenced area. {IDAPA 58.01.05.008 [40 CFR § 264.17(a)]}.

III.B.4. Container Storage Units in the HCRWSF:

III.B.4.a.(1) The Permittee shall only store hazardous waste in containers with a design capacity smaller than 0.1 m³; or

III.B.4.a.(2) The Permittee shall only store hazardous waste that is exempt from IDAPA 58.01.05.008 (40 CFR 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).

III.B.4.b. Waste must meet the unit-specific waste acceptance criteria in Attachment 2 of this Permit.

III.B.4.c. The maximum permitted storage capacity for hazardous and mixed wastes at the HCRWSF is 13,860 gallons, with the maximum waste volume for each area set as follows:

AREA	MAXIMUM (S01) STORAGE VOLUME
Bay 2	3,960 gallons
Bay 2a	1,760 gallons
Bay 3	5,280 gallons
Bay 4	1,980 gallons
Bay 5	880 gallons

III.B.5. Container Treatment Units in the NWCF:

The Permittee may provide container treatment in the NWCF for those wastes identified for container treatment in Attachment 1 of this Permit, and as follows:

III.B.5.a. Container treatment of hazardous and mixed debris is authorized.

III.B.5.b. Waste must meet the unit-specific waste acceptance criteria in Attachment 2, and the receipt and storage prohibitions in Permit Conditions II.B., III.B.1.a., and III.B.2.a. of this Permit.

III.B.5.c. Container treatment may be performed in the portable treatment containers (portable soak tanks) VES-NCD-138, TK-NC-136, and TK-NC-137.

- III.B.5.d. Treatment in the portable treatment containers shall consist of chemical extraction by soaking debris in treatment solutions for extended periods of time.
- III.B.5.e. The portable treatment containers may be used in the Steam Spray Booth (Room 418), Decon Cubicles (Rooms 421 and 422), and Decon Cell (Room 308), in Building CPP- 659/-1659.
- III.B.5.f. The portable treatment containers shall be drained, rinsed with an appropriate solvent, flushed and completely drained after treatment and before removal from the Steam Spray Booth, Decon Cubicles, and Decon Cell in accordance with Attachment 1 of this Permit.
- III.B.5.g. The portable treatment containers shall be rinsed with an appropriate solvent, flushed, and completely drained prior to switching from RCRA-regulated treatment to non RCRA-regulated decontamination activities. All rinsates shall be managed as hazardous/mixed waste. The Permittee shall document the performance of this cleaning regime in accordance with Permit Conditions I.Z. of this Permit.
- III.B.5.h. The maximum permitted capacity for container treatment in the NWCF is 7,600 gallons per day of treated media, with the maximum daily volume of treated media for each container set as follows:

CONTAINER	CONTAINER VOLUME	MAXIMUM (T04) VOLUME OF HWMA/RCRA TREATED MEDIA
VES-NCD-138	538 gallons	4,300 gallons per day
TK-NC-136	127 gallons	1,100 gallons per day
TK-NC-137	270 gallons	2,200 gallons per day

III.C. CONDITION OF CONTAINERS

If a container holding waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the waste from said container to a container that is in good condition, or otherwise manage the waste in accordance with IDAPA 58.01.05.008 [40 CFR § 264.171] and Attachments 1 and 1a of this Permit.

III.D. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee shall assure that the ability of the container to contain the waste is not impaired, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.172] and Attachments 1 and 6 of this Permit.

III.E. MANAGEMENT OF CONTAINERS

III.E.1. The Permittee shall keep all storage containers closed during storage, and shall not open, handle, or store containers in a manner which may rupture the container or cause it to leak, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.173] and Attachments 1, 1a, and 6 of this Permit.

III.E.2. The Permittee may keep the portable treatment containers, in Permit Condition III.B.5.c., of this Permit open during treatment provided the containers are visually monitored during treatment. The Permittee shall not otherwise manage treatment containers in a manner which may rupture the container or cause it to leak, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.173] and Attachments 1 and 6 of this Permit.

III.F. IGNITABLE OR REACTIVE WASTES

The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive wastes in the permitted container storage and treatment areas by following the procedures specified, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.176] and Attachments 1, 1a, and 6 of this Permit.

III.G. INCOMPATIBLE WASTE

III.G.1. The Permittee shall not place incompatible wastes or wastes and material that are incompatible in the same storage or treatment container, in accordance with IDAPA 58.01.05.008 [40 CFR § § 264.177(a)] and Attachments 1, 1a, and 6 of this Permit.

III.G.2. The Permittee shall not place waste or materials in an unwashed storage or treatment container that previously held an incompatible waste or material, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.177(b)] and Attachments 1, 1a, and 6 of this Permit.

III.G.3. The Permittee shall not store or treat waste that is incompatible with any waste or material stored or treated nearby, without separating or protecting the incompatible waste or material from commingling by means of a dike, berm, or wall in accordance with IDAPA 58.01.05.008 [40 CFR § 264.177(c)] and Attachments 1, 1a, and 6 of this Permit.

III.G.4. The Permittee shall inspect the permitted container storage and treatment areas and remove any waste, debris, or constituent residues from a storage or treatment area prior to storing potentially incompatible wastes in the area, in accordance with Attachments 1, 1a, and 6 of this Permit.

III.H. SECONDARY CONTAINMENT

III.H.1. The Permittee shall ensure that the secondary containment systems for the container treatment areas in Permit Condition III.B.5.e. of this Permit are free of cracks or gaps to prevent any migration of waste or accumulated liquid out of the system to the soil,

groundwater, or surface water at any time, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.175] and Attachment 1 of this Permit.

III.H.2. The Permittee shall follow Permit Conditions VI.G.1.b., VI.G.1.c., and VI.G.1.d. of this Permit for de minimis spills into the secondary containment system from normal debris treatment processes (i.e., transfers into and out of tanks, condensate drippage, etc.).

III.H.3. Secondary containment systems for the RMWSF/HCRWSF shall be constructed and maintained to contain 10% of the total volume of waste containers or 100% of the volume of the largest waste container, whichever is greater, stored within the waste management units, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.175(b)(3)].

III.I. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect the permitted container storage and treatment areas, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.174] and the Inspection Schedules contained in Attachment 4 of this Permit, to detect leaking containers and deterioration of containers and the containment system caused by corrosion and other factors.

III.J. RECORD KEEPING

The Permittee shall document the results of all certification, inspections, and waste analysis performed in the Operating Record, in accordance with Permit Conditions I.Z. and II.J. of this Permit.

III.K. CLOSURE

The Permittee shall close the permitted container storage and treatment areas in accordance with IDAPA 58.01.05.008 [40 CFR Subpart G and 40 CFR § 264.178], the procedures set forth in Attachments 8, and 8a, and Permit Condition II.K. of this Permit.

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MODULE IV - WASTE PILES

IV.A. PERMITTED WASTE PILE STORAGE AREAS

Subject to the terms of this Permit, the Permittee may store hazardous and mixed debris, as specified in Permit Condition IV.C. of this Permit, in the waste pile storage areas of the NWCF, Building CPP-659/-1659.

IV.B. DESIGN AND OPERATING REQUIREMENTS

The Permittee is exempt from the IDAPA 58.01.05.008 [40 CFR § 264.251(a)] design requirements, as provided by the Director, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.251(b)] and shown in Attachment 9 of this Permit.

IV.C. PERMITTED & PROHIBITED WASTES IN THE WASTE PILE STORAGE AREAS

IV.C.1. Waste Pile Units in the NWCF:

The Permittee may provide waste pile storage in the NWCF for those wastes identified for waste piles storage in Attachment 1 of this Permit, and as follows:

IV.C.1.a. Storage of hazardous and mixed debris is authorized.

IV.C.1.b. Storage of hazardous and mixed debris containing free liquids is prohibited.

IV.C.1.c. Waste must meet the unit-specific waste acceptance criteria in Attachment 2 of this Permit.

IV.C.1.d. The maximum permitted capacity for waste pile storage in the NWCF is 147 cubic meters, with the maximum waste volume for each room set as follows:

ROOM	MAXIMUM (S03) STORAGE VOLUME
Room 216 - Filter Cell/Valve Cubicle	39 cubic meters
Room 218 – Manipulator (PaR) Parking Area	12 cubic meters
Room 306 - Equipment Decontamination Storage Room	18 cubic meters
Room 308 - Remote Decon Cell	22 cubic meters
Room 309 - Filter Handling Cell	18 cubic meters
Room 323 - Crane Maintenance & Transfer Area	13 cubic meters
Room 326 - Transfer Area	5 cubic meters
Room 416 - Shielded Storage Room	20 cubic meters

IV.D. IGNITABLE OR REACTIVE WASTES

IV.D.1. The Permittee shall not place ignitable or reactive waste in a waste pile unless the waste and waste pile satisfy all applicable requirements of IDAPA 58.01.05.011 [40 CFR § Part 268], and

IV.D.1.a. The waste is treated, rendered, or mixed before or immediately after placement in the pile so that:

IV.D.1.a.(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under IDAPA 58.01.05.005 [40 CFR § Part 261.21 or 261.23], and

IV.D.1.a.(2) The Permittee complies with IDAPA 58.01.05.008 [40 CFR § Part 264.17(b)], or

IV.D.2.a.(3) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

IV.E. INCOMPATIBLE WASTE

IV.E.1. The Permittee shall not place incompatible waste or wastes and material that are incompatible in the same waste pile unless the Permittee complies with IDAPA 58.01.05.008 [40 CFR § 264.17] and Attachments 1 and 6 of this Permit.

IV.E.2. The Permittee shall separate waste piles from other nearby incompatible material stored in containers, other piles, or open tanks, or protect them by means of a dike, berm, wall, or other device in accordance with IDAPA 58.01.05.008 [40 CFR § 264.257] and Attachments 1 and 6 of this Permit.

IV.E.3. The Permittee shall not place waste on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to ensure compliance with IDAPA 58.01.05.008 [40 CFR § 264.17] and Attachments 1 and 6 of this Permit.

IV.F. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect waste piles on a weekly basis to detect the presence of free liquids or the deterioration or malfunction of the run-on and run-off protection systems, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.254(b)] and the Inspection Schedules in Attachment 4 of this Permit.

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IV.G. RECORD KEEPING

The Permittee shall document the results of all certifications, inspections and waste analyses performed in the Operating Record, in accordance with Permit Conditions I.Z. and II.J. of this Permit.

IV.H. CLOSURE

The Permittee shall close the permitted waste pile areas in accordance with IDAPA 58.01.05.008 [40 CFR Subpart G and 40 CFR § 264.258], the procedures set forth in Attachment 8, and Permit Condition II.K. of this Permit.

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MODULE V - TANK SYSTEM STORAGE AND/OR TANK TREATMENT

V.A. PERMITTED STORAGE AND TREATMENT TANKS

Subject to the terms of this Permit, the Permittee may store and treat hazardous and mixed waste, as specified in Permit Condition V.B. of this Permit, in the following storage and treatment tanks in the NWCF, Building 659/-1659:

V.A.1. Low-level Decon Room Sinks

A small sink, SH-NCD-934, is located in the low-level, Decon Room (415) of Building CPP-659. The sink is constructed of stainless steel and permitted for treatment of small debris items. Make-up solutions can be fed to the sink through permanent fittings via the chemical make-up tanks, or made up directly in the sink. Debris items can be scrubbed, left to soak, or sparged with air/steam. The small sink and treatment processes are further described in Attachment 1 of this Permit.

A large sink, SH-NCD-933, is located in the low-level Decon Room (415) of Building CPP-659. The large sink is similar to the small sink, except for size and location of utilities. Make-up solutions can be fed to the sink through permanent fittings via the chemical make-up tanks, or made up directly in the sink. Debris items can be scrubbed, left to soak, or sparged with air/steam. The large sink and treatment processes are further described in Attachment 1 of this Permit.

V.A.2. Low-level Decon Room Ultra-Sonic Cleaner

The ultra-sonic cleaner, UC-NCD-921, is located in the low-level, Decon Room (415) of Building CPP-659. The ultra-sonic cleaner is constructed of stainless steel, has an acoustic lid, and a removable polypropylene tank insert that is used for caustic solutions. The ultra-sonic cleaner uses a high frequency mechanical vibration to produce a strong cleaning action at the solid-liquid interfaces (cavitation). Cleaning is usually performed in a basket to allow cavitation on all sides. The ultra-sonic cleaner and treatment processes are further described in Attachment 1 of this Permit.

V.A.3. Holdup and Collection Tanks

The holdup tank, VES-NCD-123, is located in Room 219 and the collection tank, VES-NCD-129, is located in Room 203 of Building CPP-659. The tanks are used for collection and storage of liquid, mixed waste from RCRA debris treatment activities. Occasionally, the tanks are used for pH adjustment of the collected liquid pending future processing. VES-NCD-123 is a horizontal, cylindrical tank on two (2) saddle supports. VES-NCD-129 is a vertical, cylindrical tank mounted on four (4) support legs. Both tanks are constructed of stainless steel. The holdup and collection tanks and treatment processes are further described in Attachment 1 of this Permit.

V.A.4. The HEPA Filter Leaching System (HFLS)

The HEPA Filter Leaching System consists of a stainless steel leaching tank (VES-NCD-141) and a stainless steel drying tank (VES-NCD-142) that are located in Room 309 of Building CPP-659. The HFLS is designed to treat spent HEPA filters by leaching the hazardous contaminants from the filters using Nitric Acid. A minimum of three (3) leaching cycles followed by two (2) rinse water cycles are performed on each filter. After the filters are allowed to drip dry, they are transferred to the drying tank where they are further dried by circulating heated air. The HFLS and treatment processes are further described in Attachment 1 of this Permit. HEPA filters to be treated can also be stored in Room 309, if necessary, during treatment process shutdowns or during maintenance to the remote handling equipment.

V.B. PERMITTED AND PROHIBITED WASTES IN THE STORAGE AND TREATMENT TANKS

V.B.1. Tank Storage Units in the NWCF

The Permittee may provide tank storage in the NWCF for those wastes identified for tank storage in Attachment 1 of this Permit, and as follows:

V.B.1.a. Storage of hazardous and mixed waste is authorized.

V.B.1.b. The Permittee may only store hazardous waste that is exempt from IDAPA 58.01.05.008 (40 CFR § 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).

V.B.1.c. Waste must meet the unit-specific waste acceptance criteria in Attachment 2 of this Permit.

V.B.1.d. The maximum permitted capacity for tank storage in the NWCF is 4,520 gallons, with the maximum waste volume for each tank set as follows:

TANK	TANK DIMENSIONS	MAXIMUM (S02) STORAGE VOLUME
VES-NCD-123 - Holdup Tank	7'6" and tangent to tangent length 9'	3,800 gallons
VES-NCD-129 - Collection Tank	4' and tangent to tangent length of 5'6"	530 gallons
VES-NCD-141	L 2' 11", W 2' 5", and H 2' 2"	~ 120 gallons
VES-NCD-142	L 2' 11", W 2' 5", and H 1' 4"	~ 70 gallons

V.B.2. Tank Treatment Units in the NWCF

The Permittee may provide tank treatment in the NWCF only for those wastes identified for tank treatment in Attachment 1 of this Permit, and as follows:

V.B.2.a. Treatment of hazardous and mixed waste is authorized.

V.B.2.b. The Permittee may only treat hazardous waste that is exempt from IDAPA 58.01.05.008 (40 CFR § 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).

V.B.2.c. Waste must meet the unit-specific waste acceptance criteria in Attachment 2 of this Permit.

V.B.2.d. The maximum permitted capacity for tank treatment in the NWCF is 17,006 gallons per day, with the maximum tank/debris treatment volumes for each tank set as follows:

TANK	TANK DIMENSIONS	MAXIMUM (T01) TREATMENT VOLUME
SH-NCD-934 - Small Sink	18" X 20" X 18"	672 gallons per day*
SH-NCD-933 - Large Sink	119" X 24" X 19"	5,688 gallons per day*
UC-NCD-921 - Ultra-sonic Cleaner	26" X 26" X 27"	1,896 gallons per day*
VES-NCD-123 - Holdup Tank	7'6" and tangent to tangent length of 9'	7,600 gallons per day
VES-NCD-129 - Collection Tank	4' and tangent to tangent length of 5'6"	1,060 gallons per day
VES-NCD-141 - HEPA Filter Leaching Vessel	2'11" X 2'5" X 2'2"	90 gallons per day*
VES-NCD-142 - HEPA Filter Drying Vessel	2'11" X 2'5" X 1'4"	90 gallons per day*

* Indicates volume of hazardous and mixed debris treated per day.

V.B.2.e. The treatment tanks shall be rinsed with an appropriate solvent, flushed, and completely drained prior to switching from RCRA-regulated treatment to non RCRA-regulated decontamination activities. The Permittee shall document the performance of this cleaning regime in accordance with Permit Conditions I.Z. and II.J. of this Permit.

V.C. SECONDARY CONTAINMENT

V.C.1 The Permittee shall design, install, and operate secondary containment systems that are capable of detecting and collecting releases, and which prevent any migration of waste or accumulated liquid out of the system to the soil, groundwater, or surface water during use of the tank systems, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.193] and Attachment 1 of this Permit.

V.C.2. The boundaries of the secondary containment system for the storage and treatment tanks are dependent on the position of the cell drain valves during storage and treatment. The primary and secondary containment boundaries and materials of construction are defined in Appendix D-1, Attachment 1 of this Permit.

V.D. NEW TANK SYSTEMS

V.D.1. The Permittee shall obtain and keep on file (at the Facility) written statements from an independent, qualified installation inspector or independent, qualified registered professional engineer certifying to the design and attesting that proper installation procedures for any new tank systems were used, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.192(b) and (g)], Permit Conditions I.Z. and II.J., and Attachment 1 of this Permit.

V.E. TANK SYSTEM OPERATING CONDITIONS

V.E.1. The Permittee shall not place waste or treatment reagents in a tank system if they could cause the tank, ancillary equipment, or containment system to rupture, leak, corrode, or otherwise fail, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.194(a)] and Attachments 1 and 6 of this Permit.

V.E.2. The Permittee shall use appropriate controls and practices to prevent spills and overflows from the tank or containment systems, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.194(b)(1) and (2)] and Attachment 1 of this Permit.

V.F. RESPONSE TO LEAKS OR SPILLS

V.F.1. The Permittee shall immediately remove a tank system from service if there is a leak or spill from the tank system or its secondary containment, or if the system or secondary containment are unfit for use, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196] and Attachment 1 of this Permit. The Permittee shall then:

V.F.1.a. Immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of release, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(a)] and Attachment 1 of this Permit.

V.F.1.b. Within 24 hours, or as soon as practical, remove as much of the waste as is necessary to prevent further releases of hazardous waste to the environment and to allow

inspection and repair of the tank system, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(a) and (b)] and Attachment 1 of this Permit.

- V.F.1.c. Immediately conduct a visual inspection of the release and, based upon that inspection, prevent migration of and remove visible contamination from soil or surface water, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(c)] and Attachment 1 of this Permit.
- V.F.1.d. If the collected material is a HWMA/RCRA-regulated material, manage it in accordance with all applicable requirements of IDAPA 58.01.05.006 through 58.01.05.008 [40 CFR Parts 261 through 264]. The Permittee shall note that if the collected material is discharged through a point source to U.S. waters or to a POTW, it is subject to requirements of the Clean Water Act. If the collected material is released to the environment, it may be subject to reporting under 40 CFR Part 302.
- V.F.1.e. Follow the verbal and written reporting requirements for any release to the environment, in accordance with Permit Conditions V.H.3. and V.H.4. of this Permit.
- V.F.1.f. The Permittee shall follow Permit Conditions V.F.1.b., V.F.1.c., and V.F.1.d. of this Permit for de minimis spills into the secondary containment system from normal debris treatment processes (i.e., transfers into and out of tanks, condensate drippage, etc.).
- V.F.2. The Permittee shall close the system in accordance with IDAPA 58.01.05.008 [40 CFR § 264.197] and Attachment 8 of this Permit, unless he satisfies the following requirements:
 - V.F.2.a. For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste and make any necessary repairs before returning the tank system to service, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(e)(2)] and Attachment 1 of this Permit.
 - V.F.2.b. For a release caused by a leak from a primary tank system to a secondary containment system, the Permittee shall repair the tank system prior to returning it to service, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(e)(3)] and Attachment 1 of this Permit.
 - V.F.2.c. For a release to the environment, caused by a leak from an aboveground portion of the ancillary equipment that does not have secondary containment, the Permittee shall repair the tank system prior to returning it to service, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(e)(4)] and Attachment 1 of this Permit.
 - V.F.2.d. If the Permittee replaces a component of the tank system to eliminate the leak, that component must satisfy the requirements for new tank systems or components in IDAPA 58.01.05.008 [40 CFR § § 264.192 and 264.193].

V.F.3. If the Permittee has repaired a tank system in accordance with Permit Condition V.F.2. of this Permit and the repair has been extensive (e.g., installation of an internal liner, repair of a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service until the Permittee obtains a certification by an independent, qualified, registered, professional engineer that the repaired system is capable of handling hazardous waste without release for the intended life of the system. The certification shall be submitted to the Director within seven (7) days after returning the tank system to use, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(f)], Permit Condition I.Y., and retained in accordance with Permit Conditions I.Z. and II.J., and Attachment 1 of this Permit.

V.G. INSPECTION SCHEDULES AND PROCEDURES

V.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.

V.G.2. The Permittee shall inspect at least once each operating day.

V.G.2.a. Data gathered from monitoring and leak detection equipment and overfill controls to ensure that the tank system is being operated according to design; and

V.G.2.b. The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system and ancillary equipment, to detect erosion or signs of release of hazardous waste.

V.G.2.c. The Permittee may rely on the inspection requirements of Permit Condition V.G.2.a. of the Permit to also meet the inspection requirements of V.G.2.b. of the Permit for VES-NCD-123 and VES-NCD-129.

V.H. RECORD KEEPING AND REPORTING

V.H.1. The Permittee shall document the results of all certifications, inspections, and waste analyses in the Operating Record, in accordance with Permit Conditions I.Z. and II.J. of this Permit.

V.H.2. Releases from tanks that are totally contained within a secondary containment system need not be reported. However, said releases shall be recorded in the Operating Record, in accordance with Permit Conditions I.Z. and II.J. of this Permit, and shall include:

V.H.2.a. Date and time of the release;

V.H.2.b. Tank identification;

V.H.2.c. Name and title of the employee documenting the release;

V.H.2.d. Size and amount of the release; and

V.H.2.e. All actions taken.

V.H.3. The Permittee shall verbally report to the Director any release to the environment within 24 hours of its detection, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(d)(1) and (2)], Permit Condition I.T., and Attachment 1 of this Permit.

V.H.4. In addition to complying with the requirements of Permit Condition I.T. of this Permit, within 30 calendar days of detecting a release to the environment from a tank system, the Permittee shall report the following to the Director in accordance with Permit Condition I.Y. of this Permit:

V.H.4.a. Likely route of migration of the release;

V.H.4.b. Characteristics of the surrounding soil, including soil composition, geology, and hydrogeology, taking into account possible climatic effect on the soil characteristics;

V.H.4.c. Results of any monitoring, sampling, or air dispersion modeling conducted in connection with the release;

V.H.4.d. Proximity of downgradient drinking water, surface water, and populated areas; and

V.H.4.e. Description of response action taken or planned.

V.I. CLOSURE

The Permittee shall close the permitted storage and treatment tanks in accordance with IDAPA 58.01.05.008 [40 CFR Subpart G and 40 CFR § 264.197], the procedures set forth in Attachment 8, and Permit Condition II.K. of this Permit.

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MODULE VI - MISCELLANEOUS UNIT TREATMENT

VI.A. PERMITTED MISCELLANEOUS TREATMENT UNITS

Subject to the terms of this Permit, the Permittee may treat hazardous and mixed debris, as specified in Permit Condition VI.B. of this Permit, in the following miscellaneous treatment units in the NWCF, Building CPP-659/-1659:

VI.B. PERMITTED/PROHIBITED WASTE IN THE MISCELLANEOUS TREATMENT UNITS

VI.B.1. Miscellaneous Treatment Unit for Scarification and Spalling in the NWCF:

The Permittee may provide scarification and spalling in the miscellaneous treatment unit only for those wastes identified for scarification and spalling in Attachment 1 of the Permit, and as follows:

VI.B.1.a. Treatment of hazardous and mixed debris is authorized.

VI.B.1.b. The Permittee may only treat hazardous waste that is exempt from IDAPA 58.01.05.008 (40 CFR 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).

VI.B.1.c. Waste must meet the unit-specific waste acceptance criteria in Attachment 2 of this Permit.

VI.B.1.d. Scarification and spalling are performed using the integrated vacuum/scabbling equipment described in Attachment 1 of this Permit.

VI.B.1.e. The Permittee may perform scarification and spalling in the following unit at the following maximum capacity:

UNIT	MAXIMUM (X02) VOLUME OF HWMA/RCRA TREATMENT MEDIA
Steam Spray Booth and Glovebox - Room 418	30 short tons per day

VI.B.2 Miscellaneous Treatment Units for Chemical/Physical Extraction in the NWCF:

The Permittee may provide chemical/physical extraction in the miscellaneous treatment units only for those wastes identified for chemical/physical extraction in Attachment 1 of the Permit, and as follows:

VI.B.2.a. Treatment of hazardous and mixed debris is authorized.

- VI.B.2.b. The Permittee may only treat hazardous waste that is exempt from IDAPA 58.01.05.008 (40 CFR § 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).
- VI.B.2.c. Waste must meet the unit-specific waste acceptance criteria in Attachment 2 of this Permit.
- VI.B.2.d. Chemical/physical extraction shall consist of steam and/or pressurized hot water washing, solvent extraction, liquid abrasive spray blasting, and carbon dioxide blasting.
- VI.B.2.e. The Permittee may perform chemical/physical extraction in the following units at the following maximum capacities:

UNITS	MAXIMUM (X99) VOLUME OF HWMA/RCRA TREATMENT MEDIA
Steam Spray Booth and Glove Box - Room 418	8,660 gallons per day
Decon Cubicle - Room 421	8,660 gallons per day
Decon Cubicle - Room 422	8,660 gallons per day
Decon Cell - Room 308	8,660 gallons per day

- VI.B.2.f. The Permittee must drain all decontamination solutions from the decontamination cell, CPP-659 Room 308, immediately upon completion of debris treatment.

VI.C. IGNITABLE OR REACTIVE WASTES

The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive wastes in the miscellaneous treatment units, in accordance with IDAPA 58.01.05.008 [40 CFR § § 264.17 and 264.601] and Attachments 1 and 6 of this Permit.

VI.D. INCOMPATIBLE WASTE

- VI.D.1. The Permittee shall not place incompatible wastes or materials that are incompatible in the same treatment container, in accordance with IDAPA 58.01.05.008 [40 CFR § § 264.177(a) and 264.601] and Attachments 1 and 6 of this Permit.
- VI.D.2. The Permittee shall not place waste or materials in an unwashed treatment container that previously held an incompatible waste or material, in accordance with IDAPA 58.01.05.008 [40 CFR § § 264.177(b) and 264.601] and Attachments 1 and 6 of this Permit.
- VI.D.3. The Permittee shall not treat wastes that are incompatible with any waste or any materials stored or treated nearby, without separating or protecting the incompatible waste or material from commingling by means of a dike, berm, or wall, in accordance with IDAPA 58.01.05.008 [40 CFR § § 264.17 and 264.601] and Attachments 1 and 6 of this Permit.

VI.D.4. The Permittee shall not place waste on the same base where incompatible wastes or materials were previously placed, unless the base has been decontaminated sufficiently to ensure compliance with IDAPA 58.01.05.008 [40 CFR § 264.17 and 264.601] and Attachments 1 and 6 of this Permit.

VI.E. SECONDARY CONTAINMENT SYSTEMS

VI.E.1. The Permittee shall ensure that the secondary containment systems for the miscellaneous treatment unit areas are free of cracks or gaps to prevent any migration of waste or accumulated liquid out of the system to the soil, groundwater, or surface water at any time, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Attachment 1 of this Permit.

VI.E.2. The boundaries of the secondary containment systems for the miscellaneous treatment units are dependent on the position of the cell drain valves during treatment. The primary and secondary containment boundaries and materials of construction are defined in Appendix D-1, Attachment 1 of this Permit.

VI.F. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect the permitted miscellaneous treatment units in accordance with IDAPA 58.01.05.008 [40 CFR § 264.602], and the Inspection Schedules contained in Attachment 4 of this Permit, to assure compliance with the environmental performance standards of IDAPA 58.01.05.008 [40 CFR § 264.601].

VI.G. RESPONSE TO LEAKS OR SPILLS

VI.G.1. The Permittee shall immediately remove a miscellaneous treatment unit from service if there is a leak or spill from the treatment unit or its secondary containment, or if the system or secondary containment are unfit for use, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Attachment 1 of this Permit. The Permittee shall then:

VI.G.1.a. Immediately stop the flow of hazardous waste into the treatment system or secondary containment system and inspect the system to determine the cause of release, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Attachment 1 of this Permit.

VI.G.1.b. Within 24 hours, or as soon as practical, remove as much of the waste as is necessary to prevent further releases of hazardous waste to the environment and to allow inspection and repair of the treatment system, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Attachment 1 of this Permit.

VI.G.1.c. Immediately conduct a visual inspection of the release and based upon that inspection, prevent migration of and remove visible contamination from soil or surface water, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Attachment 1 of this Permit.

- VI.G.1.d. If the collected material is a HWMA/RCRA-regulated material, manage it in accordance with all applicable requirements of IDAPA 58.01.05.006 through 58.01.05.008 [40 CFR Parts 261 through 264]. The Permittee shall note that if the collected material is discharged through a point source to U.S. waters or to a POTW, it is subject to requirements of the Clean Water Act. If the collected material is released to the environment, it may be subject to reporting under 40 CFR Part 302.
- VI.G.1.e. Follow the verbal and written reporting requirements for any release to the environment, in accordance with Permit Conditions VI.G.3. of this Permit.
- VI.G.1.f. The Permittee shall follow Permit Conditions VI.G.1.b., VI.G.1.c., and VI.G.1.d. of this Permit for de minimis spills into the secondary containment system from normal debris treatment processes (i.e., transfers into and out of tanks, condensate drippage, etc.).
- VI.G.2. The Permittee shall close the miscellaneous treatment unit, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Attachment 8 of this Permit, unless he satisfies the following requirements:
- VI.G.2.a. For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste and make any necessary repairs before returning the treatment system to service, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Attachment 1 of this Permit.
- VI.G.2.b. For a release caused by a leak from a miscellaneous treatment unit to a secondary containment system, the Permittee shall repair the miscellaneous treatment unit prior to returning it to service, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Attachment 1 of this Permit.
- VI.G.2.c. If the Permittee replaces a component of the miscellaneous treatment unit to eliminate the leak, that component must satisfy the requirements for new components, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601].
- VI.G.3. If the Permittee has repaired a miscellaneous treatment unit in accordance with Permit Condition VI.G.2. of this Permit, and the repair has been extensive (e.g., installation of an internal liner, repair of a ruptured primary containment or secondary containment vessel), the miscellaneous treatment unit must not be returned to service until the Permittee obtains a certification by an independent, qualified, registered, professional engineer that the repaired system is capable of handling hazardous waste, without release, for the intended life of the system. The certification shall be submitted to the Director within seven (7) days after returning the miscellaneous treatment unit to use, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(f)], Permit Condition I.Y., and retained in accordance with Permit Conditions I.Z.1.c., I.Z.2., and II.J., and Attachment 1 of this Permit.

VI.H. RECORD KEEPING AND REPORTING

- VI.H.1. The Permittee shall document the results of all certifications, inspections, and waste analyses in the Operating Record in accordance with Permit Conditions I.Z. and II.J. of this Permit.

VI.H.2. Releases from miscellaneous treatment units that are totally contained within a secondary containment system need not be reported. However, said releases shall be recorded in the Operating Record, in accordance with Permit Conditions I.Z. and II.J. of this Permit, and shall include :

VI.H.2.a. Date and time of the release;

VI.H.2.b. Miscellaneous treatment unit identification;

VI.H.2.c. Name and title of the employee documenting the release;

VI.H.2.d. Size and amount of the release; and

VI.H.2.e. All actions taken.

VI.H.3. The Permittee shall verbally report to the Director any release to the environment within 24 hours of its detection, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(d)(1) and (2)], Permit Condition I.T., and Attachment 1 of this Permit.

VI.H.4. In addition to complying with the requirements of Permit Condition I.T. of this Permit, within 30 calendar days of detecting a release to the environment from a miscellaneous treatment unit, the Permittee shall report the following to the Director in accordance with Permit Condition I.Y. of this Permit:

VI.H.4.a. Likely route of migration of the release;

VI.H.4.b. Characteristics of the surrounding soil, including soil composition, geology, and hydrogeology, taking into account possible climatic effect on the soil characteristics;

VI.H.4.c. Results of any monitoring, sampling, or air dispersion modeling conducted in connection with the release;

VI.H.4.d. Proximity of downgradient drinking water, surface water, and populated areas; and

VI.H.4.e. Description of response action taken or planned.

VI.I. CLOSURE

The Permittee shall close the permitted miscellaneous treatment units, in accordance with IDAPA 58.01.05.008 [40 CFR Subpart G and 40 CFR § 264.603], the procedures set forth in Attachment 8, and Permit Condition II.K. of this Permit.

MODULE VII - CORRECTIVE ACTION

VII.A. APPLICABILITY

Sections 3004 (u) and 3004 (VII) of RCRA (42 U.S.C. §§ 6924 (u) and (v)); HWMA (Idaho Code § 39-4409 (5)); and IDAPA 58.01.05.008 [40 CFR § 264.101] require corrective action, as necessary, to protect human health and the environment for all releases of hazardous waste or hazardous waste constituents from any Solid Waste Management Unit (SWMU) at the facility, for all permits issued after November 8, 1984. A Federal Facility Agreement (FFA) under Section 120(e)(2) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, 42 U.S.C. § 9620) is a mechanism to be used to investigate and clean up releases of hazardous wastes and hazardous waste constituents, as necessary, to protect human health and the environment. On December 4, 1991 the U.S. environmental Protection Agency, the State of Idaho, and the United States Department of Energy (Parties) executed a Federal Facilities Agreement and Consent Order (FFACO) to integrate and satisfy the requirements of CERCLA and the corrective action requirements of RCRA. The FFACO is fully incorporated into this Permit and enforceable through this Permit as corrective action requirements. All investigations and cleanups included in the FFACO will meet or exceed all applicable or relevant and appropriate state and federal requirements including RCRA, HWSA, and HWMA to the extent required by CERCLA Section 121, 42 U.S.C. § 9621.

The corrective action requirements for the facility will be satisfied by the FFACO, except for those units not covered by the FFACO as set out in Permit Conditions VII.A.1 to VII.A.3.

- VII.A.1. Module VII applies to those releases or threats of releases not included in the Statement of Work by the Parties to the FFACO.
- VII.A.2. In the event the FFACO is vacated, Module VII applies to those units for which a Record of Decision has not been signed.
- VII.A.3. Module VII applies to those releases or threats of releases which are discovered after the termination of the FFACO.

VII.B. STANDARD CONDITIONS

- VII.B.1. The Permittee shall take corrective action as necessary to protect human health and the environment for those units listed in Tables 1 and 2 of this Permit.
- VII.B.2. Failure to submit the information required by the Permit Conditions identified within Module VII of this Permit or falsification of any submitted information is grounds for termination of this Permit in accordance with IDAPA 58.01.05.012 [40 CFR § 270.43] and/or grounds for an enforcement action pursuant to Permit Condition I.B. of this Permit.
- VII.B.3. All plans, reports, notifications, and other submissions to the Director, as required by the Permit Conditions identified within Module VII of this Permit, shall be signed and certified in accordance with Permit Condition I.W. of this Permit.

- VII.B.4. The Permittee shall submit, by certified mail, express mail, or hand delivery, a minimum of three (3) copies of each plan, report, notification, or other submissions, required by the Permit Conditions identified within Module VII of this Permit, to the following addressees:

Please submit two (2) copies to:

Director, Idaho Department of Environmental Quality
c/o Administrator, State Waste Management & Remediation Program
1410 North Hilton
Boise, Idaho 83706-1255
Telephone No. (208) 373-0502

An additional copy to:

Chief, RCRA Permits Section WCM-127
U.S. Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

- VII.B.5. All plans and schedules, as required by the Permit Conditions in Module VII of this Permit, upon written approval from the Director, shall be incorporated into Module VII of this Permit in accordance with Permit Condition VII.H. of this Permit. Any noncompliance with such approved plans and schedules shall be deemed noncompliance with this Permit.
- VII.B.6. The Permittee shall only receive extension(s) of the specified compliance schedule due date(s) for the submittal(s) required by the permit conditions within Module VII of this Permit, upon written approval from the Director, in accordance with Permit Condition VII.H. of this Permit.
- VII.B.7. If the Director determines that further actions beyond those provided by the permit conditions within Module VII of this Permit, or changes to permit conditions stated herein, are warranted, the Director shall modify the permit condition(s) in Module VII in accordance with permit condition VII.H. of this Permit.
- VII.B.8. All raw data, such as laboratory reports, drilling logs, geological and hydrogeological investigations, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to the permit conditions in Module VII of this Permit shall be maintained at the facility during the effective term of this Permit, including any reissued permits, and be readily available for inspection.
- VII.B.9. Should the FFACO be vacated, investigations completed under the FFACO/CERCLA remedial process may be utilized in complying with Module VII of this Permit in so much as the terms "Preliminary Assessment," "Site Investigation," "Remedial Investigation," "Feasibility Study," "Remedial Design," and "Remedial Action" may be utilized in lieu of the terms "RCRA Facility Investigation," "Corrective Measures Study," and "Remedy Selection," where appropriate.
- VII.B.10. To the extent that work required by Module VII of this Permit must be done under permit(s) or approval(s) pursuant to other federal, state, or local regulatory authorities, the Permittee shall use its best efforts to obtain such permits. For the purposes of this Permit condition the term "best efforts" shall, at a minimum, mean submittal of a complete application for the permit(s) and/or approval(s) no later than

sixty (60) calendar days after the information necessary to prepare the application is available to the Permittee.

- VII.B.11. To the extent that work required by Module VII of this Permit must be done on property not owned or controlled by the Permittee, the Permittee shall use its best efforts to obtain site access agreements from the present owner(s) of such property no later than two (2) weeks prior to the scheduled commencement of work. Best efforts shall mean, at a minimum, a certified letter from the Permittee to the current property owner(s) requesting access to such property and if a reply is received from the property owner, follow-up letters from the Permittee, as appropriate, to clarify the work contemplated and address the owner's reasonable concerns. In the event that the Permittee cannot obtain the necessary access agreements, the Permittee shall notify the Director in writing. The Director shall, consistent with their legal authority, assist the Permittee in obtaining such agreements.

VII.C. NOTIFICATION REQUIREMENTS FOR, AND ASSESSMENT OF, NEWLY-IDENTIFIED SOLID WASTE MANAGEMENT UNITS

- VII.C.1. The Permittee shall notify the Director in writing, by certified mail, express mail, or hand delivery, of any newly identified SWMU (s) not identified in Permit Condition VII.B. of this Permit. The Permittee shall submit written notification to the Director within thirty (30) calendar days after discovery of newly identified SWMU(s). The notification shall include the location of the new SWMU(s) and information on the suspected or known wastes at the site.
- VII.C.2. Within ninety (90) calendar days after discovery of the newly identified SWMU(s), the Permittee shall submit a Solid Waste Management Unit Assessment Plan to the Director by certified mail, express mail or hand delivery.
- VII.C.3. The Solid Waste Management Unit Assessment Plan shall include the information or the means by which the following information shall be obtained:
- VII.C.3.a. Information concerning past and present operations at the unit(s); and
- VII.C.3.b. Any groundwater, surface water, soil (surface or subsurface strata), or air sampling and analysis data needed to determine whether a release of hazardous waste and/or hazardous constituent(s) from such unit(s) is likely to occur. The Solid Waste Management Assessment Plan shall demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste and/or hazardous constituent(s) from the newly identified Solid Waste Management Unit(s) to the environment.
- VII.C.4. The Permittee shall receive written approval from the Director for the Solid Waste Management Unit Assessment Plan; or
- VII.C.5. The Permittee shall receive written notice from the Director of the Solid Waste Management Unit Assessment Plan's deficiencies and the written notice shall specify a due date for submittal of a revised assessment plan; or
- VII.C.6. The Permittee shall receive written notice from the Director of the revisions incorporated, by the Director, in the Solid Waste Management Unit Assessment Plan. The revised assessment plan shall become the approved Solid Waste Management Unit Assessment Plan.

- VII.C.7. The Solid Waste Management Unit Assessment Plan, as approved by the Director, as specified in Permit Conditions VII.C.4., VII.C.5., or VII.C.6. of this Permit, shall be incorporated within Module VII of this Permit in accordance with Permit Condition VII.I. of this Permit. The Permittee shall be notified in writing of the approval of the permit modification.
- VII.C.8. The Permittee shall implement the approved Solid Waste Management Assessment Plan within thirty (30) calendar days after receipt of written notice of the permit modification approval specified in Permit Condition VII.C.7. of this Permit.
- VII.C.9. The Solid Waste Management Unit Assessment Plan shall contain a schedule, which includes the submission date for a Solid Waste Management Unit Assessment Report, not to exceed thirty (30) calendar days after the completion of the requirements identified in the approved Solid Waste Management Assessment Plan referenced in Permit Condition VII.C.8. of this Permit.
- VII.C.10. The Solid Waste Management Unit Assessment Report shall describe all results obtained from the implementation of the approved Solid Waste Management Unit Assessment Plan. At a minimum, the Report shall provide the following information for each newly identified SWMU:
- VII.C.10.a. The location of each newly-identified SWMU(s) in relation to any/all previously identified SWMUs, building numbers, or other descriptive landmarks;
- VII.C.10.b. The type and function of the unit, including general dimensions and a structural description;
- VII.C.10.c. The period during which the unit was operated; and
- VII.C.10.d. All wastes that were or are being managed at the SWMU, including results of any sampling and analysis used to determine whether releases of hazardous wastes and/or hazardous constituent(s) have occurred, are occurring, or are likely to occur from the unit.
- VII.C.11. Based on the results of the Solid Waste Management Unit Assessment Report, the Director shall determine the need for further investigations at specific unit(s) included in the Solid Waste Management Unit Assessment. If the Director determines that such investigations are needed, the Director shall require the Permittee to prepare a plan for such investigations. This plan shall be reviewed for approval in accordance with the requirements of Permit Condition VII.D. of this Permit.
- VII.C.12. The Permittee shall notify the Director, in writing by certified mail, express mail, or hand delivery, of any release(s) of hazardous waste and hazardous waste constituent(s) discovered during the course of groundwater monitoring, field investigation, environmental auditing, or other activities undertaken during the RCRA Facility Investigation. The written notification shall be received by the Director no later than fifteen (15) calendar days after discovery. Such releases may be from already documented or newly identified units. The Director may require further investigation of the newly identified releases. Further investigation, if required, shall be performed in accordance with the requirements of Permit Condition VII.D. of this Permit.

VII.D. RCRA FACILITY INVESTIGATION

The Permittee shall conduct a RCRA Facility Investigation to determine the nature and extent of known and suspected releases of hazardous waste and/or hazardous constituent(s) from each Solid Waste Management Unit at the facility and to gather data to support the corrective Measures Study. The Permittee shall conduct the RCRA Facility Investigation in accordance with the requirements specified in Appendix A of this Permit.

- VII.D.1. The Permittee shall prepare and submit the RCRA Facility Investigation, Task I Report, as specified in Appendix A of this Permit for each SWMU identified in Table 1 of this Permit in which a release of hazardous waste or hazardous constituent(s) has not been documented.
 - VII.D.1.a. The Permittee shall conduct a RCRA Facility Investigation - Phase I, in accordance with Appendix A, Task I.D of this Permit, for each SWMU in which a release of hazardous waste or hazardous constituent(s) has not been documented, as specified in Table 1 of this Permit.
 - VII.D.1.b. The Permittee shall evaluate the RCRA Facility Investigation - Phase I and identify SWMU(s) that require additional investigation under the RCRA Facility Investigation Phase II (Task II and Task III).
 - VII.D.1.c. Based on the data collected in the RCRA Facility Investigation - Phase I, the Permittee shall prioritize each SWMU, identified for additional investigation pursuant to Permit Condition VII.D.1.b. of this Permit, according to the SWMU's potential or imminent threat to human health and the environment.
 - VII.D.1.d. Based on the classification of the SWMU (s), pursuant to Permit Condition VII.D.1.c. of this Permit, the Permittee shall identify a need, if applicable, and recommend an alternate RCRA Facility Investigation schedule(s) for the additional investigation of any SWMU's potential or imminent threat to human health and the environment.
 - VII.D.1.e. The Director may modify the RCRA Facility Investigation schedules, specified in Tables 4, 5, and 6 of this Permit, pursuant to Permit Conditions VII.I.1. and VII.I.4. of this Permit, to allow additional investigations under the RCRA Facility investigation - Phase II (Task II and III) to be conducted according to the prioritization of the Solid Waste Management Units, in accordance with Permit Conditions VII.D.1.c. and VII.D.1.d. of this Permit.
 - VII.D.1.f. The Permittee shall prepare and submit the results of the RCRA Facility Investigation - Phase I in the Task I Report.
- VII.D.2. The Permittee shall conduct the RCRA Facility Investigation, for all of the SWMUs listed in Table 1 of this Permit, in accordance with the schedule specified in Table 4 of this Permit.
- VII.D.3. The Permittee shall conduct a RCRA Facility Investigation, excluding the RCRA Facility Investigation -Phase I requirements, as specified in Appendix A of this Permit, for each SWMU, specified in Table 2 of this Permit, in which a release of hazardous waste or hazardous waste constituent(s) has been documented. The RCRA Facility Investigation shall be conducted concurrently with the RCRA Facility Investigation - Phase I specified in Permit Condition VII.D.1.a. of this Permit.

- VII.D.4. The Permittee shall conduct the RCRA Facility Investigation for the SWMUs specified in Table 2 of this Permit in accordance with the schedule specified in Table 5 of this Permit.
- VII.D.5. The RFI compliance schedules, specified in Tables 4 and 5 of this Permit, may be modified in accordance with Permit Condition VII.I. of this Permit.

VII.E. INTERIM MEASURES

- VII.E.1. If during the course of any activity initiated in compliance with the permit conditions of Module VII of this Permit, the Director determines that a release or potential release of hazardous waste and/or constituent(s) from an SWMU poses a threat to human health and/or the environment, the Director may require the Permittee to perform specific interim measures.
- VII.E.2. The Director shall notify the Permittee in writing of the requirement to perform the interim measures specified in the Interim Measures Plan, in accordance with Permit Condition VII.E.3. of this Permit. The Permittee shall comply with the specified Interim Measures Plan alternative (Permit Condition VII.E.3.a. or VII.E.3.b. of this Permit) designated in the written notification.
- VII.E.3. The Permittee shall perform the requirements of the Interim Measures Plan in accordance with the alternative specified in either Permit Condition VII.E.3.a. or VII.E.3.b. of this Permit.
 - VII.E.3.a. The Director shall determine specific actions to implement the interim measures. The Director shall provide an Interim Measures Plan with the written notification specified in Permit Condition VII.E.2. of this Permit. or;
 - VII.E.3.b. Within thirty (30) calendar days after receipt of written notification requiring the Interim Measures Plan as specified in Permit Condition VII.E.2. of this Permit, the Permittee shall provide, by certified mail, express mail, or hand delivery, the Interim Measures Plan to the Director for approval.
- VII.E.4. The Interim Measures Plan shall identify specific action(s) to be taken to implement the interim measures and a schedule for implementing the required measures. At a minimum, the Interim Measures Plan shall consider, but not be limited to, the following factors:
 - VII.E.4.a. Time required to develop and implement a final remedy;
 - VII.E.4.b. Actual and potential exposure of human and environmental receptors;
 - VII.E.4.c. Actual and potential contamination of drinking water supplies and sensitive ecosystems;
 - VII.E.4.d. The potential for further degradation of the medium absent of interim measures;
 - VII.E.4.e. Presence of hazardous waste that may pose a threat of release;
 - VII.E.4.f. Presence and concentration of hazardous waste including hazardous waste constituent(s) in solids that have the potential to migrate to groundwater or surface water;

- VII.E.4.g Weather conditions that may affect the current levels of contamination;
- VII.E.4.h. Risks of fire, explosion, or accident; and
- VII.E.4.i. Other situations that may pose threats to human health and/or the environment.
- VII.E.5. The Interim Measures Plan shall be incorporated into this Permit in accordance with Permit Condition VII.H. of this Permit.

VII.F. DETERMINATION OF NO FURTHER ACTION

- VII.F.1. Based on the results of the RFI and other relevant information, the Permittee may petition the Director to terminate all or parts of the Corrective Action for Solid Waste Management Units Schedule of Compliance.
 - VII.F.1.a. This petition shall contain information demonstrating that there are no releases of hazardous waste including hazardous waste constituents from SWMU(s) at the facility that pose a threat to human health and the environment.
 - VII.F.1.b. If, based upon a review of the Permittee's petition the results of the RFI, and other information the Director determines that releases or suspected releases which were investigated either are non-existent or do not pose a threat to human health and the environment, the Director shall grant the request to terminate all or part of the Corrective Action for Solid Waste Management Units Schedule of Compliance.
- VII.F.2. A determination of no further action shall not preclude the Director from requiring continued or periodic monitoring of air, soil, ground water, or surface water, when site specific circumstances indicate that a release of hazardous waste including hazardous waste constituents are likely to occur, if necessary to protect human health and the environment.
- VII.F.3. A determination of no further action shall not preclude the Director from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates that a release or the likelihood of a release from a SWMU at the facility is likely to pose a threat to human health or the environment. In such a case, the Director shall initiate a modification to the Corrective Action For Solid Waste Management Units Schedule of Compliance according to the procedures in Permit Condition VII.I. to rescind the determination made in accordance with Permit Condition VII.F.1.

VII.G. CORRECTIVE MEASURES STUDY AND IMPLEMENTATION

- VII.G.1. Based on the results of the RCRA Facility Investigation, the Permittee shall identify, screen, and develop the alternative or alternatives for removal, containment, treatment and/or other redemption of the contamination. The Permittee shall conduct the Corrective Measures Study in accordance with the requirements specified in Appendix B (Task I, II, III, and VII) of this Permit.
- VII.G.2. Upon the Director's approval of the Corrective Measures Study, pursuant to Permit Condition VII.G.1. of this Permit, the Permittee shall prepare and submit, to the Director, by certified mail, express mail, or hand delivery, for approval, the Corrective Measures Implementation Program Plan, in accordance with the requirements specified in Appendix B, Task VII.A. of this Permit.

- VII.G.3. Upon the Director's approval of the Corrective Measures Implementation Program Plan, pursuant to Permit Condition VII.G.2. of this Permit, the Permittee shall conduct the Corrective Measures Implementation Program Plan in accordance with the requirements specified in Appendix B, Task VII of this Permit [the corrective measures design (Task VII.B.) and construction of the corrective measures (Task VII.C.)].
- VII.G.4. The Permittee shall conduct the Corrective Measures Study and prepare the Corrective Measures Implementation Program Plan, as specified in Permit Conditions VII.G.1. and VII.G.2. of this Permit, in accordance with the schedule specified in Table 6 of this Permit.
- VII.G.5. The Permittee shall prepare and submit, to the Director for approval a compliance schedule for conducting the Corrective Measures Implementation Program Plan, as required by Permit Condition VII.G.3. of this Permit.
- VII.G.5.a. The Permittee shall provide a justification for each compliance date in the compliance schedule based on the complexity of the Corrective Measures Implementation Program Plan and reasonable contract and administrative time requirements.
- VII.G.5.b. On or before the compliance date for submittal of the draft Corrective Measures Implementation Program Plan specified in Table 6 of this Permit, the Permittee shall submit the compliance schedule and subsequent justification, pursuant to Permit Condition VII.G.5. of this Permit, by certified mail, express mail, or hand delivery, to the Director for approval.
- VII.G.5.c. Upon the Director's approval of the Corrective Measures Implementation Program Plan compliance schedule, the compliance schedule shall be incorporated into this Permit concurrently with the final Corrective Measures Implementation Program Plan, in accordance with IDAPA 58.01.05.012 [40 CFR § § 270.41 and 270.42].
- VII.G.6. The Permittee shall conduct the Corrective Measures Implementation, as specified in Permit Condition VII.G.3. of this Permit, in accordance with Permit Condition VII.G.5. of this Permit.
- VII.G.7. The Corrective Measures Study and Corrective Measures Implementation compliance schedules, specified in Table 6 of this Permit, shall be modified in accordance with Permit Condition VII.I. of this Permit.

VII.H. REPORTING REQUIREMENTS

- VII.H.1. The Permittee shall submit to the Director signed semiannual progress reports of all activities (*i.e.*, Solid Waste Management Unit Assessments, Interim Measures, RCRA Facility Investigations, and/or Corrective Measures Studies) conducted pursuant to the permit conditions of Module VII of this Permit. The Permittee shall initially submit the semiannual progress reports no later than ninety (90) calendar days after being notified in writing that the approved Solid Waste Management Unit Assessment Plan has been incorporated within Module VII of this Permit, through a permit modification in accordance with Permit Condition VII.I. of this Permit.
- VII.H.2. At a minimum, the semiannual progress reports shall contain the following:
- VII.H.2.a. A description of the work completed;

- VII.H.2.b. Summaries of all findings and summaries of all raw data;
- VII.H.2.c. Summaries of all problems or potential problems encountered during the reporting period and actions taken or to be taken to rectify problems; and
- VII.H.2.d. Projected work for the next reporting period.
- VII.H.3. The Permittee shall maintain copies of other reports, drilling logs, etc. at the facility during the effective period of this Permit. The Permittee shall provide copies of the said reports, logs, etc. to the Director upon request.
- VII.H.4. As specified under Permit Condition VII.F.3. of this Permit, the Director may require the Permittee to conduct new or more extensive assessments, investigations, or studies, as needed, based on information provided in these progress reports or other supporting information.

VII.I. MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE OF COMPLIANCE

Requests for modifications of the final compliance dates pursuant to the permit conditions in Module VII of this Permit shall be submitted to the Director for approval, in accordance with IDAPA 58.01.05.012 [40 CFR § § 270.41 and 270.42]. The Corrective Action Schedule of Compliance (Module VII of this Permit) final compliance dates subject to modification include:

- VII.I.1. The compliance date(s), as specified in Table 5 of this Permit, for submittal of the RCRA Facility Investigation Final Report (Appendix A, Task VII);
- VII.I.2. The compliance date(s), as specified in Table 6 of this Permit for submittal of the Corrective Measures Study Report (Appendix A, Task I, II, & III);
- VII.I.3. The compliance date(s), as specified in Table 6 of this Permit, for submittal of the final Corrective Measures Implementation Program Plan (Appendix A, Task VII.A.), in accordance with Permit Condition VII.F.2. of this Permit;
- VII.I.4. Once established in accordance with Permit Condition VII.G.5. of this Permit, the compliance date(s) for submittal of the corrective measures final (100% completion) design and construction plans, in accordance with Permit Condition VII.G.3. of this Permit;
- VII.I.5. Compliance dates, as specified in Tables 5 and 6 of this Permit, for implementing the approved plans and/or reports; and
- VII.I.6. Compliance dates for quarterly submittal of progress reports.
- VII.I.7. Pursuant to IDAPA 58.01.05.012 [40 CFR § 270.42(a)], the compliance schedules specified in Tables 5 and 6 of this Permit, shall be modified if the Director determines that good cause exists for which the Permittee had no control and for which there is no reasonable available remedy.

- VII.I.8. Failure to obtain adequate funds or appropriations to conduct the Corrective Measures Implementation Program Plan, pursuant to Permit Condition VII.G.3. of this Permit, shall be considered good cause for modification of the compliance schedule(s), Table 6 of this Permit, as specified in Permit Condition VII.I.7. of this Permit, only in accordance with the following permit conditions:
- VII.I.8.a. The Permittee shall use it's best effort to secure all funds that may be required for implementation of the requirements specified in Permit Condition VII.G.3. of this Permit pursuant to the compliance schedule in Table 6 of this Permit;
- VII.I.8.b. If necessary, the Permittee shall seek, by the most expeditious means possible, appropriations from the U.S. Congress for funding to achieve the compliance schedule in Table 6 of this Permit, in accordance with Sections 1-4 and 1-5 of executive Order 12088 as implemented by the Office of Management and Budget Circular A-106, as amended. Section 1-5 of executive Order 12088 states "The head of each executive agency shall ensure that sufficient funds for compliance with applicable pollution control standards are requested in the Agency budget."
- VII.I.8.c. Within five (5) calendar days after failing to obtain adequate funding, the Permittee shall submit to the Director, by certified mail, express mail, or hand delivery, a written request and justification, for modification of the compliance schedule specified in Table 6 of this Permit. The written justification shall demonstrate that good cause exists, pursuant to the permit conditions under VII.I.8. of this Permit. The Permittee shall also provide an alternate schedule of compliance for conducting the Corrective Measures Implementation for the subsequent fiscal year.
- VII.I.8.d. Upon evaluation, if the Director determines that good cause exists in accordance with the permit conditions under VII.I.8. of this Permit, the Director shall modify the compliance schedule.
- VII.I.8.e. For any approved modification, the compliance schedule specified in Table 6 of this Permit shall be modified to provide relief from the original compliance schedule time-frames only for the subsequent fiscal year. All successive compliance dates after the end of such fiscal year shall be modified to reflect the original time-frames specified prior to the modification request under Permit Condition VII.I.8. of this Permit.
- VII.I.9. Failure to obtain adequate funds or appropriations from Congress shall not, in any way, release the Permittee from it's obligation to comply with the Corrective Measures Implementation (as required by Permit Condition VII.G.3 of this Permit) or any other requirement of this Permit or RCRA.
- VII.I.10. If adequate funds for Corrective Measures Implementation are not available, the Director reserves the right to pursue any action or actions deemed necessary to protect human health and the environment, not excluding judicial recourse or termination of this Permit.
- VII.I.11. The Permittee shall submit a request for modifications of the interim compliance dates that do not affect the final compliance dates, to the Director for approval. If the Director approves the interim compliance date modifications, Tables 4, 5 and/or 6 of this Permit shall incorporate the modified compliance dates as approved and such change shall not be considered a permit modification under IDAPA 58.01.05.012 [40 CFR § 270.41].

APPENDIX A - RCRA FACILITY INVESTIGATION

TASK I: DESCRIPTION OF CURRENT CONDITIONS

The Permittee shall submit for the Director's approval a report providing the background information pertinent to the Facility (Idaho National Engineering and Environmental Laboratory), contamination and interim measures as set forth below. The data gathered during any previous investigations or inspections and other relevant data shall be included.

I.A. BACKGROUND INFORMATION

- I.A.1. Map(s), consistent with the requirements set forth in IDAPA 58.01.05.012 [40 CFR § 270.14(b)(19)] and be of sufficient detail and accuracy to locate and report all current and future work performed at the site, depicting the following:
 - I.A.1.a. All solid or hazardous waste treatment, storage or disposal areas including all solid waste management units, active after November 19, 1980;
 - I.A.1.b. All known past solid or hazardous waste treatment, storage or disposal areas including solid waste management units regardless of whether they were active on November 19, 1980;
 - I.A.1.c. All known past or present product and waste underground tanks or piping;
 - I.A.1.d. The location of all production and groundwater monitoring wells. These wells shall be clearly labeled and ground and top of casing elevations and construction details included.
- I.A.2. A history and description of ownership and operation, solid and hazardous waste generation, treatment, storage, and disposal activities at the Facility;
- I.A.3. Approximate dates or periods of past product (to aid in the evaluation of determining the source for any contamination) and waste spills, type of materials spilled, and a description of the response actions conducted, including any inspection reports or technical reports generated as a result of the response; and
- I.A.4. A list of documents and studies prepared for the Facility.

I.B. NATURE, EXTENT, AND RATE OF MIGRATION OF CONTAMINATION

The Permittee shall prepare and submit for the Director's approval a preliminary report describing the existing information on the nature and extent of contamination.

- I.B.1. The report shall summarize all possible source areas of contamination. This, at minimum, should include all regulated units, solid waste management units, waste and product spill areas, and other suspected source areas of contamination. For each area, the Permittee shall identify the following:
 - I.B.1.a. Location of area (on a Facility map);
 - I.B.1.b. Quantities of solid and hazardous wastes;

- I.B.1.c. Hazardous waste or hazardous waste constituents, to the extent known; and
- I.B.1.d. Identification of areas where additional information is necessary.
- I.B.2. The report shall include an assessment and description of the existing degree and extent of contamination. This should include:
 - I.B.2.a. Available monitoring data and qualitative information on locations and levels of contamination at the Facility;
 - I.B.2.b. All potential migration pathways including information on geology, pedology, hydrogeology, physiography, hydrology, hydrogeochemistry, water quality, meteorology, and air quality; and
 - I.B.2.c. The potential impact(s) on human health and the environment, including demography, groundwater and surface water use, and land use.

I.C. PAST/CURRENT ACTIVITIES

The Permittee shall document investigatory and/or remedial activities which were or are being undertaken at the Facility. This shall include:

- I.C.1. Objectives of these activities; how the activities are mitigating potential threats to human health and the environment and/or are consistent with and integrated into RCRA Facility Investigation work at the Facility;
- I.C.2. Design, construction, operation, and maintenance requirements; and
- I.C.3. Schedules for all activities, including progress reports.

I.D. RCRA FACILITY INVESTIGATION-PHASE I

- I.D.1. For each SWMU in which a release of hazardous waste or hazardous waste constituents has not been documented, as specified on Table 1 of this Permit, the Permittee shall conduct a RCRA Facility Investigation-Phase I to document a release or absence of a release of hazardous waste or hazardous waste constituents.
- I.D.2. The Permittee shall prepare and submit a RCRA Facility Investigation-Phase I Workplan to the Director for approval. The RCRA Facility Investigation-Phase I Workplan shall include the development of several plans, which shall be prepared concurrently. During the RCRA Facility Investigation, it may be necessary to revise the RCRA Facility Investigation-Phase I Workplan to increase or decrease the amount of information collected to accommodate the Facility specific situation. The Facility Investigation-Phase I Workplan shall include, but not be limited to the following:
 - I.D.2.a. RCRA Facility Investigation-Phase I Project Management Plan. The Permittee shall prepare a Project Management Plan which shall include a discussion of the technical approach, schedules, and personnel. The Project Management Plan shall evaluate each Solid Waste Management Unit based on its actual or potential threat to human health and the environment and prioritize the investigatory and/or remedial activities accordingly. The Project Management Plan shall also include a description of

qualifications of personnel performing or directing the RCRA Facility Investigation, including contractor personnel. This plan shall also document the overall management approach to the RCRA Facility Investigation.

I.D.2.b. RCRA Facility Investigation-Phase I Data Collection Quality Assurance Plan. The Permittee shall prepare a plan documenting all monitoring procedures, including; sampling, field measurements and sample analyses performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data and resulting decisions are technically sound, statistically valid, and properly documented. The Data Quality Assurance Plan shall include, but not be limited to, the following:

- (1) A Data Collection Strategy section which shall include, but not be limited to; the level of precision and accuracy for all data (factors which should be considered include the environmental conditions at the time of sampling, number of sampling points, and the representatives of selected media and selected analytical parameters), a description of methods and procedures to assess the precision, accuracy and completeness of the measurement data, a description of the measures to be taken to assure that data generated by the Permittee and outside laboratories or consultants during the RCRA Facility Investigation-Phase I can be compared to each other (these data shall be comparable during the entire RCRA Facility Investigation), and details relating to the schedules and information to be provided in quality assurance reports which shall include, but not be limited to:
 - Periodic assessment of measurement data accuracy, precision, and completeness;
 - Results of performance audits;
 - Results of system audits; and
 - Potential quality assurance problems and recommended solutions.
- (2) A Sample Collection section which shall include, but not be limited to a discussion of, selecting appropriate sampling locations (depths, etc.), providing a statistically significant number of sampling sites, determining conditions under which sampling should be conducted, determining which media are to be sampled (e.g., groundwater, air, soil, sediment, etc.), determining which parameters are to be measured and where, selecting the frequency of sampling and length of sampling period, selecting the type of samples (e.g., composites Versus grabs) and number of samples to be collected, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points, selecting appropriate sample containers, sample preservation, chain-of-custody (e.g., standardized field tracking reporting forms to establish sample custody in the field prior to and during shipment as well as prepared sample labels containing all information necessary for effective sample tracking), and documenting field sampling operations and procedures, including:
 - Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, and absorbing reagents);
 - Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;
 - Documentation of specific sample preservation method;

- Calibration of field devices;
 - Collection of replicate samples;
 - Submission of field-biased blanks, where appropriate;
 - Potential interferences present at the Facility;
 - Construction materials and techniques, associated with monitoring wells and piezometer;
 - Field equipment listing and types of sample containers;
 - Sampling order; and
 - Decontamination procedures.
- (3) A Field Measurements section which shall include, but not be limited to, a discussion of selecting appropriate field measurements (locations, depth, etc.), providing a statistically significant number of field measurements, measuring all necessary ancillary data, determining conditions under which field measurements should be conducted, determining which media are to be addressed by appropriate field measurements (e.g., groundwater, air, soil, sediment, etc.), determining which parameters are to be measured and where, selecting the frequency of field measurements and length of field measurements period, and documenting field measurements and procedures, including:
- Procedures and forms for recording raw data and the exact location, time and Facility-specific considerations associated with the data acquisition;
 - Calibration of field devices;
 - Collection of replicate measurements;
 - Submission of field-biased blanks;
 - Potential interferences present at the Facility;
 - Construction associated with monitoring wells and piezometers used to collect field data;
 - Field equipment listing;
 - Order in which field measurements were made; and
 - Decontamination procedures.
- (4) A Sample Analysis section which shall specify: chain-of-custody procedures [*i.e.*, identification of a responsible party to act as sample custodian at the laboratory who is "Facility authorized" to sign for incoming field samples - obtain documents of shipment - and verify the data entered onto the sample custody records, provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and specification of laboratory sample custody procedures (e.g., for sample handling, storage, and disbursement for analysis)]; sample storage procedures and storage times; sample preparation methods; analytical procedures (*i.e.*, scope and application of the procedure, sample matrix, potential interferences, precision and accuracy of the methodology, and method detection limits); calibration procedures and frequency; data reduction, validation and reporting; preventative maintenance procedures and schedules; corrective action (for laboratory problems); turnaround time; and internal quality control checks, laboratory performance and systems audits and frequency, including:
- Method blank(s);
 - Laboratory control sample(s);
 - Calibration check sample(s);
 - Replicate sample(s);

- Matrix-spiked sample(s);
- "Blind" quality control sample(s);
- Control charts;
- Surrogate samples;
- Zero and span gases; and
- Reagent quality control checks.

I.D.2.c. RCRA Facility Investigation-Phase I Data Management Plan. The Permittee shall develop and initiate a RCRA Facility Investigation-Phase I Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

- A Data Record section which shall include; unique sample or field measurement code, sampling or field measurement location and sample or measurement type, sampling or field measurement raw data, laboratory analysis ID number, and result of analysis.
- A Tabular Display section which shall present; raw data, results for each medium or each constituent monitored, data reduction for statistical analysis, sorting of data by potential stratification factors (e.g., location, soil layer, topography), and summary data.
- A Graphical Format section (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.) which shall present: sampling location and sampling grid; boundaries of sampling area, and areas where additional data is required; levels and extent of contamination at each sampling location; contamination levels, averages, and maxima; changes in concentration in relation to distance from the source, time, depth, or other parameters; and features affecting intramedia transport and potential receptors.

I.D.2.d. RCRA Facility Investigation-Phase I Health and Safety Plan. The Permittee shall prepare a Health and Safety Plan, which shall include:

- Facility description including delineation of work area and availability of resources such as roads, water supply, electricity, and telephone service;
- Known hazards and risks associated with each activity conducted;
- Key personnel and alternatives responsible for site safety, response operations, and for protection of public health;
- Levels of protection to be worn by personnel in work areas (and justification);
- Procedures to control site access; and
- The Facility Health and Safety Plan shall be consistent with all applicable federal, state, and local regulations such as: NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site activities (1985), EPA Order 1440.1 - Respiratory Protection, EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field activities, Facility Contingency Plan, EPA Standard Operating Guide (1984), OSHA regulations (i.e., 29 CFR Parts 1910 and 1926 including Interim Final Rule (29 CFR Part 1910) published in the December 19, 1986 Federal Register), state and local regulations, and other applicable EPA guidance.

I.D.3. Determination of Further Action

I.D.3.a. The Permittee shall provide recommendations for further investigation under a RCRA

Facility Investigation-Phase I at the identified Solid Waste Management Unit(s) based on documentation of a known or prior release from the specified SWMU(s) in the final Task I report.

- I.D.3.b. The list of recommended SWMU(s) for further investigation under a RCRA Facility Investigation-Phase I shall be prioritized based on the actual or potential threat to human health or the environment.

TASK II: RCRA FACILITY INVESTIGATION-PHASE II WORKPLAN

The Permittee shall prepare a RCRA Facility Investigation-Phase II Workplan. This RCRA Facility Investigation-Phase II Workplan shall include the development of several plans, which shall be prepared concurrently. During the RCRA Facility Investigation, it may be necessary to revise the RCRA Facility Investigation-Phase II Workplan to increase or decrease the amount of information collected to accommodate the facility-specific situation. The RCRA Facility Investigation-Phase II Workplan shall include, but not be limited to, the following:

II.A. PROJECT MANAGEMENT PLAN

The Permittee shall prepare a Project Management Plan which shall include a discussion of the technical approach, schedules, budget, and personnel. The Project Management Plan shall evaluate each SWMU based on its actual or potential threat to human health and the environment and prioritize the investigator and/or remedial activities accordingly. The Project Management Plan shall also include a description of qualifications of personnel performing or directing the RCRA Facility Investigation, including contractor personnel. This plan shall also document the overall management approach to the RCRA Facility Investigation.

II.B. DATA COLLECTION QUALITY ASSURANCE PLAN

The Permittee shall prepare a plan documenting all monitoring procedures, including: sampling, field measurements and sample analyses performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information and data is properly documented.

- II.B.1. The Data Collection Strategy section of the Data Collection Quality Assurance Plan shall include, but not be limited to, those requirements set forth under section I.D.2.b.(1) of this appendix.
- II.B.2. The Sample Collection section of the Data Collection Quality Assurance Plan shall include, but not be limited to, those requirements set forth under Section I.D.2.b.(2) of this appendix.
- II.B.3. The Field Measurements section of the Data Collection Quality Assurance Plan shall include, but not be limited to, those requirements set forth under Section I.D.2.b.(3) of this appendix.
- II.B.4. The Sample Analysis section of the Data Collection Quality Assurance Plan shall include, but not be limited to, those requirements set forth under Section I.D.2.b.(4) of this appendix.

II.C. DATA MANAGEMENT PLAN

The Permittee shall develop and initiate a Data Management Plan to document and track

investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation. This plan shall include, but not be limited to, those requirements set forth under Section I.D.2.c. of this appendix.

II.D. HEALTH AND SAFETY PLAN

The Permittee shall prepare a Health and Safety Plan which shall include, but not be limited to, those requirements set forth under Section I.D.2.d. of this appendix.

II.E. COMMUNITY RELATIONS PLAN

The Permittee shall prepare a plan for the dissemination of information to the public regarding investigation activities and results.

TASK III: FACILITY INVESTIGATION

The Permittee shall conduct a facility investigation to characterize the Facility (environmental setting), define the source(s) and degree and extent of contamination, and identify actual or potential receptors. This investigation shall be conducted in accordance with Task II and shall produce data of adequate technical quality to support the development and evaluation of the corrective measure alternative or alternatives during the Corrective Measures Study.

III.A. ENVIRONMENTAL SETTING

III.A.1. Hydrogeology

III.A.1.a. A description of the regional and site specific geologic and hydrogeologic characteristics affecting groundwater flow beneath the Facility, including:

- Regional and site specific stratigraphy; description of strata including strike and dip, identification of stratigraphic contacts;
- Structural geology: description of local and regional structural features (e.g., folding, faulting, tilting, jointing, etc.);
- Depositional history;
- Locations and amounts of recharge and discharge; and
- Regional and site specific groundwater flow, including seasonal and temporal variations in the groundwater flow regime.

III.A.1.b. An analysis of any topographic features that might influence the groundwater flow system. (Note: Stereographic analysis of aerial photographs may aid in this analysis).

III.A.1.c. Based on field data, test, and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways at the Facility (i.e., the aquifers and any intervening saturated and unsaturated units), including:

- Hydraulic conductivity and porosity (total and effective);
- Lithology, grain size, sorting, degree of cementation;
- An interpretation of hydraulic interconnections between saturated zones;
- and
- The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content, etc.).

- III.A.1.d. Based on field studies and cores, structural and hydrogeologic cross sections showing the extent (depth, thickness, lateral extent) of hydrogeologic units which may be part of the migration pathways identifying:
- Sand and gravel deposits in unconsolidated deposits;
 - Zones of fracturing or channeling in consolidated or unconsolidated deposits;
 - Zones of high and low permeability that might direct and restrict the flow of contaminants;
 - The uppermost aquifer: geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs; and
 - Water-bearing zones above the first confining layer that may serve as pathways for contaminant migration including perched zones of saturation.
- III.A.1.e. Based on data obtained from groundwater monitoring wells and piezometer(s) installed upgradient and downgradient of the potential contaminant source(s), a representative description of water level or fluid pressure monitoring including:
- Potentiometric maps;
 - Hydrologic cross sections showing vertical gradients;
 - The flow system, including the vertical and horizontal components of flow; and
 - Any temporal changes in hydraulic gradients, for example, due to seasonal influences.
- III.A.1.f. A description of manmade influences that may affect the hydrogeology of the site, identifying:
- Active and inactive local water-supply and production wells with an approximate schedule of pumping; and
 - Manmade hydraulic structures (pipelines, French drains, ditches, unlined ponds, septic tanks, National Pollution Discharge Elimination System outfalls, retention areas, etc.).
- III.A.2. Soils
- The Permittee shall characterize the soil and rock units above the water table in the vicinity of the contaminant release(s). Such characterization shall include, but not be limited to, the following information:
- III.A.2.a. SCS soil classification;
- III.A.2.b. Surface soil distribution;
- III.A.2.c. Soil profile, including ASTM classification of soils;
- III.A.2.d. Transects of soil stratigraphy;
- III.A.2.e. Hydraulic conductivity (saturated and unsaturated);
- III.A.2.f. Relative permeability;

- III.A.2.g. Bulk density;
- III.A.2.h. Porosity;
- III.A.2.i. Soil sorptive capacity;
- III.A.2.j. Cation exchange capacity;
- III.A.2.k. Soil organic content;
- III.A.2.l. Soil pH;
- III.A.2.m. Particle size distribution;
- III.A.2.n. Depth of water table;
- III.A.2.o. Moisture content;
- III.A.2.p. Effect of stratification on unsaturated flow;
- III.A.2.q. Infiltration;
- III.A.2.r. Evapotranspiration;
- III.A.2.s. Storage capacity;
- III.A.2.t. Vertical flow rate;
- III.A.2.u. Mineral content; and
- III.A.2.v. Redox potential.
- III.A.3. Surface Water and Sediment

The Permittee shall characterize the temporal and permanent surface water bodies in the vicinity of the Facility. Such characterization shall include, but not be limited to, the following information:

- III.A.3.a. Location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume for lakes and estuaries;
- III.A.3.b. Location, elevation, surface area, depth, volume, freeboard, and purpose of impoundment for surface impoundments;
- III.A.3.c. Location, elevation, flow, velocity, depth, width, seasonal fluctuations, and flooding tendencies (*i.e.*, 100 year event) for streams, ditches, drains, swamps and channels;
- III.A.3.d. Drainage patterns;
- III.A.3.e. Evaporation;
- III.A.3.f. Description of the chemistry of the natural surface water and sediments. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients (NH₃,

NO₃-NO₂-, PO₄₋₃), chemical oxygen demand, total organic carbon, specific contaminant concentrations, etc., and

III.A.3.g. Description of sediment characteristics including, deposition area, thickness profile, and physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange, pH, etc.)

III.A.4. Air

The Permittee shall provide information characterizing the climate in the vicinity of the Facility. Such information shall include, but not be limited to:

III.A.4.a. A description of the following parameters:

- Annual and monthly rainfall averages;
- Monthly temperature averages and extremes;
- Wind speed and direction;
- Relative humidity/dew point;
- Atmospheric pressure;
- Evaporation data;
- Development of inversions; and
- Climate extremes that have been known to occur in the vicinity of the Facility, including frequency of occurrence.

III.A.4.b. A description of topographic and manmade features which affect air flow and emission patterns, including;

- Ridges, hills or mountain areas;
- Canyons or valleys;
- Surface water bodies (e.g., rivers, lakes, bays, etc.);
- Wind breaks and forests, and
- Buildings.

III.B. SOURCE CHARACTERIZATION

The Permittee shall collect analytical data to characterize the wastes and the areas where wastes have been placed, collected or removed including: type, quantity, physical form, disposition, and Facility characteristics affecting release (e.g., Facility security, and engineered barriers). This shall include the quantification of the following specific characteristics (as well as the documentation of the procedures used in making the determinations), at each source area:

III.B.1. Unit/Disposal Area Characteristics;

III.B.1.a. Location of unit/disposal area;

III.B.1.b. Type of unit/disposal area;

III.B.1.c. Design features;

III.B.1.d. Operating practices (past and present);

III.B.1.e. Period of operation;

III.B.1.f. General physical conditions; and

III.B.1.g. Method used to close the unit/disposal area.

III.B.2. Waste Characteristics:

III.B.2.a. Type of waste placed in the unit;

- Hazardous Classification (*e.g.*, ignitable, reactive, corrosive, toxic);
- Quantity; and
- Chemical composition.

III.B.2.b. Physical, chemical, and biological characteristics;

- Physical form (solid, liquid, gas);
- Physical description (*e.g.*, powder, oily sludge);
- Temperature;
- pH;
- General chemical class (*e.g.*, acid, base, solvent);
- Molecular weight;
- Density;
- Boiling point;
- Viscosity;
- Solubility in water;
- Cohesiveness of the waste;
- Vapor pressure;
- Flash point;
- Sorption;
- Biodegradability/bioconcentration/biotransformation;
- Photodegradation rates;
- Hydrolysis rates; and
- Chemical transformations.

III.C. CONTAMINATION CHARACTERIZATION

The Permittee shall collect analytical data on groundwater, soils, surface water, sediment, and subsurface gas contamination in the vicinity of the Facility. These data shall be sufficient to define the extent, origin, direction, and rate on movement of contaminant plumes. Data shall include time and location of sampling, media sampled, concentrations found, and conditions during sampling, and the identity of the individuals performing the sampling and analysis. The data shall also include an assessment of the risk of explosion from each SWMU. The Permittee shall address and document all the procedures used in addressing the following types of contamination at the Facility:

III.C.1. Groundwater contamination

The Permittee shall conduct a ground-water investigation to characterize any plumes of contamination at the Facility. This investigation shall at a minimum provide the following information:

III.C.1.a. A description of the horizontal and vertical extent of any immiscible or dissolved contaminant plume(s) originating from the Facility;

III.C.1.b. The horizontal and vertical direction of contamination movement;

- III.C.1.c. The velocity of contaminant movement;
- III.C.1.d. The horizontal and vertical concentration profiles of reasonable suspected hazardous wastes and/or hazardous constituents in the plume(s);
- III.C.1.e. An evaluation of factors influencing the plume movement;
- III.C.1.f. An extrapolation of future contaminant movement.
- III.C.2. Soil contamination

The Permittee shall conduct an investigation to characterize any contamination of the soil and rock units above the water table in the vicinity of the contaminant release. The investigation shall include the following information:
- III.C.2.a. A description of the vertical and horizontal extent of any contamination;
- III.C.2.b. A description of contaminant and soil chemical properties within the contaminant source area and plume. This precludes contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration and transformation;
- III.C.2.c. Specific contaminant concentrations;
- III.C.2.d. The velocity and direction of contaminant movement; and
- III.C.2.e. An extrapolation of future contaminant movement.
- III.C.3. Surface Water and Sediment Contamination

The Permittee shall conduct an investigation of surface water contamination at the Facility. The investigation shall include, but not be limited to, the following information:
- III.C.3.a. A description of the horizontal and vertical extent of any immiscible or dissolved contaminant plume(s) originating from the Facility, and the extent of contamination in underlying sediments;
- III.C.3.b. The horizontal and vertical direction of contaminant movement;
- III.C.3.c. The contaminant velocity;
- III.C.3.d. An evaluation of the physical, biological and chemical factors influencing contaminant movement;
- III.C.3.e. An extrapolation of future contaminant movement; and
- III.C.3.f. A description of the chemistry of the contaminated surface waters and sediments. This includes determining the pH, total dissolved solids, specific contaminant concentrations, etc.

III.C.4. Air Contamination

The Permittee shall conduct an investigation to characterize the particulate and gaseous contaminants released into the atmosphere. This investigation shall provide the following information:

- III.C.4.a. A description of the horizontal and vertical direction and velocity of contaminant movement;
- III.C.4.b. The rate and amount of the release; and
- III.C.4.c. The chemical and physical composition of the contaminant(s) released, including horizontal and vertical concentration profiles.

III.C.5. Subsurface Gas Contamination

The Permittee shall conduct an investigation to characterize subsurface gases emitted from buried hazardous waste and hazardous waste constituents in the ground water. This investigation shall include the following information:

- III.C.5.a. A description of the horizontal and vertical extent of subsurface gases migration;
- III.C.5.b. The chemical composition of the gases being emitted;
- III.C.5.c. The rate, amount, and density of the gases being emitted;
- III.C.5.d. Horizontal and vertical concentration profiles of the subsurface gases emitted.

III.D. POTENTIAL RECEPTORS

The Permittee shall collect data describing the human populations and environmental systems that may be affected by contaminant exposure from the Facility. Chemical analysis of biological samples may also be needed. Data on observable effects in ecosystems may also be obtained. The following characteristics shall be identified:

- III.D.1. Current and possible future uses of ground water and surface water, including type of use and location of ground water users.
- III.D.2. Human use of or access to the Facility and adjacent lands, including but not limited to:
 - III.D.2.a. Recreation;
 - III.D.2.b. Hunting;
 - III.D.2.c. Residential;
 - III.D.2.d. Commercial;
 - III.D.2.e. Zoning; and
 - III.D.2.f. Relationship between population locations and prevailing wind direction.

- III.D.3. A description of the biota in surface water bodies on, adjacent to, or affected by the Facility.
- III.D.4. A description of the ecology overlying and adjacent to the Facility.
- III.D.5. A demographic profile of the people who use or have access to the Facility and adjacent land, including, but not limited to; age, sex, and sensitive subgroups.
- III.D.6. A description of any endangered or threatened species near the Facility.

TASK IV: INVESTIGATION ANALYSIS

The Permittee shall prepare an analysis and summary of all Facility investigations and their results. The objective of this task shall be to ensure that the investigation data is sufficient in quality and quantity to describe the nature and extent of contamination, potential threat to human health and/or the environment, and to produce the Corrective Measures Study.

IV.A. DATA ANALYSIS

The Permittee shall analyze all Facility investigation data outlined in Task III and prepare a report on the type and extent of contamination at the Facility including sources and migration pathways. The report shall describe the extent of contamination (qualitative/quantitative) in relation to on-site and off-site background levels as appropriate, *i.e.* at the Facility and/or surrounding communities).

IV.B. PROTECTION STANDARDS

IV.B.1. Ground-water Protection Standards

For regulated units, the Permittee shall provide information to support the Department's selection/development of Ground-water Protection Standards for all of the Appendix IX constituents found in the ground water during the Facility Investigation (Task IV). The Ground-water Protection Standards shall consist of:

- IV.B.1.a. The background level of a constituent or chemical agent in the groundwater; or
- IV.B.1.b. For any of the constituents listed in IDAPA 58.01.05.008 [Table 1 of 40 CFR § 264.94], the respective value given in Table 1 if the background level of the constituent is below the value given in Table 1; or
- IV.B.1.c. A Director-approved Alternate Concentration Limit (ACL). For any proposed Alternate Concentration Limits, the Permittee shall include a justification based upon the criteria specified in IDAPA 58.01.05.008 [40 CFR § 264.94(b)].

IV.B.2. Soil Protection Standards

For regulated units, the Permittee shall provide information to support the Director's selection/development of Soil Protection Standards for all of the hazardous wastes and hazardous waste constituents found in the soil during the Facility Investigation (Task IV). The Soil Protection Standards shall consist of:

- IV.B.2.a. The background concentration levels for any suspected hazardous inorganic constituent(s) in the soil shall be established by collecting a minimum of sixteen (16) background samples in similar geologic strata (location of background samples shall

be approved by the Director) and establishing an initial background arithmetic mean and Variance for each inorganic constituents. The arithmetic mean and variance shall be calculated based on at least four (4) replicate measurements of each constituents and comparing these results with it's initial background arithmetic mean. The comparison shall consider individually each inorganic constituent, and shall use Cochran's Approximation to the Behrens-Fisher Student's T-test at the 0.05 level of confidence, as specified in IDAPA 58.01.05.008 [40 CFR Part 264, Appendix IV].

IV.B.2.b. The background concentration levels for any suspected synthetically produced hazardous organic constituent(s) in the soil shall be zero (0) or below the method detection limit for that constituent.

IV.B.2.c. Or; a Director-approved alternate Significance Limit. For any proposed Significance Limit, the Permittee shall include a justification based upon the criteria specified in IDAPA 58.01.05.008 [40 CFR § 264.94(b)].

IV.B.3. Other Relevant Protection Standards

The Permittee shall identify all relevant and applicable standards for the protection of human health and the environment (*e.g.* National Ambient Air Quality Standards, state or federal approved water quality standards, etc.).

TASK V: SCHEDULE OF ACTIVITIES AND REPORTS

V.A. PROGRESS REPORTS

The Permittee shall at a minimum provide the Director with signed, quarterly progress reports containing:

V.A.1. A description and estimate of the percentage of the RCRA Facility Investigation-Phase II completed;

V.A.2. Summaries of all the findings;

V.A.3. Summaries of all changes made in the RCRA Facility Investigation during the reporting period;

V.A.4. Summaries of all contacts with representatives of the local community, public interest groups or state government during the reporting period;

V.A.5. Summaries of all problems or potential problems encountered during the reporting period;

V.A.6. Actions being taken to rectify problems;

V.A.7. Changes in personnel during the reporting period;

V.A.8. Projected work for the next reporting period; and

V.A.9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

V.B. RCRA FACILITY INVESTIGATION-TASK I FINAL REPORT

- V.B.1. The Permittee shall submit the RCRA Facility Investigation Task I Final and Summary Reports to the Director. The Final Report shall describe the procedures, methods, and results of all the RCRA Facility Investigations-Phase I findings for the SWMU(s) under investigation in Phase I and their releases, including information on the type and extent of contamination at the Facility, sources and migration pathways, and actual or potential receptors. The report shall present all information gathered under the approved RCRA Facility Investigation-Phase I Workplan and schedule. The Final Report shall contain adequate information to support corrective action decisions at the Facility. The Summary Report shall summarize the findings in the Final Report.
- V.B.2. The Director shall either approve or disapprove the Reports in writing. If the Director determines that the Final or Summary Reports are not adequate, the Director shall notify the Permittee in writing of the Report's deficiencies and specify a due date for submittal of the revised Final and Summary Task I Reports.

V.C. RFI TASK III & IV FINAL REPORT

- V.C.1. The Permittee shall submit RCRA Facility Investigation-Phase II, Task III & IV Final and Summary Reports. The Final Reports shall describe the procedures, methods, and results of all the Facility investigations of SWMU(s) and their releases, including information on the type and extent of contamination at the Facility, sources and migration pathways, and actual or potential receptors. The Report shall present all information gathered under the approved Task II and III workplan and schedule. The Final Report shall contain adequate information to support further corrective action decisions at the Facility. The Summary Report shall summarize the findings in the Final Report.
- V.C.2. After the Permittee submits the Final and Summary Reports, the Director shall either approve or disapprove the Reports in writing. If the Director determines that the Final and Summary Reports are not adequate, the Director shall notify the Permittee in writing of the Reports' deficiencies and specify a due date for submittal of the revised Final and Summary Reports. The permit shall be modified in accordance to IDAPA 58.01.05.012 [40 CFR § 270.42(a)] to include the approved Final and Summary Reports.

V.D. RCRA FACILITY INVESTIGATION SCHEDULE

The Permittee shall perform the RCRA Facility Investigation activities in accordance with the schedules specified in Table 3 of this Permit.

APPENDIX B - CORRECTIVE MEASURES STUDY AND IMPLEMENTATION

TASK I: DEVELOPMENT OF CORRECTIVE ACTION ALTERNATIVE(S)

Based on the results of the RCRA Facility Investigation, the Permittee shall identify, screen and develop the alternative or alternatives for removal, containment, treatment and/or other remediation of the contamination based on the objectives established for the corrective action.

I.A. DESCRIPTION OF CURRENT SITUATION

The Permittee shall submit an update to the information describing the current situation at the Facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation Task I Report. The Permittee shall provide an update to the information presented in the Task I Report to the Director regarding previous response activities and any interim measures which have or are being implemented at the Facility. The Permittee shall also make a Facility-specific statement of the purpose for the response, based on the results of the RCRA Facility Investigation. The statement of purpose shall identify the actual or potential exposure pathways that should be addressed by corrective measures.

I.B. ESTABLISHMENT OF CORRECTIVE ACTION OBJECTIVES

The Permittee shall establish site-specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RCRA Facility Investigation, EPA guidance, and the requirements of any applicable state and federal statutes. At a minimum, all corrective actions concerning groundwater releases from regulated units must be consistent with, and as stringent as, those required under the Groundwater Protection Standards.

I.C. SCREENING OF CORRECTIVE MEASURE TECHNOLOGIES

The Permittee shall review the results of the RCRA Facility Investigation to identify technologies which are appropriate for the Facility. The Permittee shall screen technologies to eliminate those which have severe limitations for a given set of waste and site-specific conditions. The screening may eliminate technologies based on inherent technology limitations. Site, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

- I.C.1. Site Characteristics - Site data shall be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics shall be eliminated from further consideration.
- I.C.2. Waste Characteristics - Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these waste characteristics shall be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site).
- I.C.3. Technology Limitations - During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems shall be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may

be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development.

I.D. IDENTIFICATION OF CORRECTIVE MEASURE ALTERNATIVES

The Permittee shall develop the corrective measure alternatives based on the corrective action objectives. The Permittee shall rely on engineering practice to determine which technologies appear most suitable for the site. Technologies can be combined to form the overall corrective action alternative or alternatives. The alternative developed should represent a workable number of option(s) that each appear to adequately address all site problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Permittee shall document the reasons for excluding any technologies.

TASK II: EVALUATION OF THE CORRECTIVE MEASURE ALTERNATIVES

The Permittee shall describe each corrective measure alternative that passes the screening in Task I and evaluate each corrective measure alternative and its components. The evaluation shall be based on technical, environmental, human health and institutional concerns. The Permittee shall also develop cost estimates of each corrective measure.

II.A. TECHNICAL/ENVIRONMENTAL/HUMAN HEALTH/INSTITUTIONAL

For each corrective measure alternative, the Permittee shall provide a description which includes but is not limited to the following: preliminary process flow sheets, preliminary sizing and type of construction for buildings and structures, and rough quantities of utilities required. The Permittee shall evaluate each alternative in four areas.

II.A.1. Technical - The Permittee shall evaluate each corrective measure alternative based on performance, reliability, implementability, and safety.

II.A.1.a. The Permittee shall evaluate performance based on effectiveness and useful life of the corrective measure:

- Effectiveness shall be evaluated in terms of the ability to perform intended functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. Any specific waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation shall also consider the effectiveness of combinations of technologies; and
- Useful life is defined as the length of time the level of effectiveness can be maintained. Most corrective measure technologies, with the exception of destruction, deteriorate with time. Deterioration can often be slowed through proper system operation and maintenance, but the technology may eventually require replacement. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.

II.A.1.b. The Permittee shall provide information on the reliability of each corrective measure including its operation and maintenance requirements and its demonstrated reliability:

- Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. Technologies requiring frequent or complex operation and maintenance activities shall be regarded as less reliable than technologies requiring little or straightforward operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered; and
- Demonstrated and expected reliability measures are ways of measuring the risk and effect of failure. The Permittee shall evaluate whether the technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes at the site.

- II.A.1.c. The Permittee shall describe the implementation of each corrective measure including the relative ease of installation (constructability) and the time required to achieve a given level of response:
- Constructability is determined by conditions both internal and external to the Facility conditions and includes such items as location of underground utilities, depth to water table, heterogeneity of subsurface materials, and location of the Facility (*i.e.*, remote location versus a congested urban area). The Permittee shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities; and
 - The Permittee shall address the time it takes to implement a corrective measure and the time it takes to actually see beneficial results. Beneficial results are defined as the reduction of contaminants to some acceptable, pre-established level.
- II.A.1.d. The Permittee shall evaluate each corrective measure alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those to workers during implementation. Factors to consider are fire, explosion, and exposure to hazardous substances.
- II.A.2. Environmental - The Permittee shall perform an Environmental Assessment for each alternative. The Environmental Assessment shall focus on the Facility conditions and pathways of contamination addressed by each alternative. The Environmental Assessment for each alternative shall include, at a minimum, an evaluation of: the short- and long-term beneficial and adverse effects of the response alternative; and adverse effects on environmentally sensitive areas; and an analysis of measures to mitigate adverse effects.
- II.A.3. Human Health - The Permittee shall assess each alternative in terms of the extent to which it mitigates short- and long-term potential exposure to any residual contamination and protects human health both during and after implementing the corrective measures. The assessment shall describe the types and levels of contaminants on-site, potential exposure routes, and potentially affected populations. Each alternative shall be evaluated to determine the level of exposure to contaminants and the reduction over time.

For management of mitigation measures, the relative reduction of impact shall be determined by comparing residual levels of each alternative with existing criteria, standards, or guidelines acceptable to the Director.

- II.A.4. Institutional - The Permittee shall assess the effects of federal, state and local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative.

II.B. COST ESTIMATE

The Permittee shall develop an estimate of the cost of each corrective measure alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital and operation and maintenance costs.

- II.B.1. Capital costs consist of direct (construction) and indirect (non-construction and overhead) costs.

II.B.1.a. Direct capital costs include:

- Construction costs: Costs of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measure.
- Equipment costs: Costs of treatment, containment, disposal and/or service equipment necessary to implement the action; these materials remain until the corrective action is complete;
- Land and site-development costs: Expenses associated with purchase of land and development of existing property; and
- Buildings and services costs: Costs of process and non-process buildings, utility connections, purchased services, and disposal costs.

II.B.1.b. Indirect capital costs include:

- Engineering expenses: Costs of administration, design, construction supervision, drafting, and testing of corrective measure alternatives;
- Legal fees and license or permit costs: administrative and technical costs necessary to obtain licenses and permits for installation and operation;
- Start-up and shakedown costs: Costs incurred during corrective measure start-up; and
- Contingency allowances: Funds to cover costs resulting from unforeseen circumstances, such as adverse weather conditions, strikes, and inadequate Facility characterization.

- II.B.2. Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. The Permittee shall consider the following operation and maintenance cost components:

- II.B.2.a. Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;

- II.B.2.b. Maintenance materials and labor costs: Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;

- II.B.2.c. Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;
- II.B.2.d. Purchased services: Sampling costs, laboratory fees, and professional fees for which the need can be predicted;
- II.B.2.e. Disposal and treatment costs: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operations;
- II.B.2.f. Administrative costs: Costs associated with administration of corrective measure operation and maintenance not included under other categories;
- II.B.2.g. Other costs: Items that do not fit any of the above categories.

TASK III: RECOMMENDATION OF A CORRECTIVE MEASURE OR MEASURES

The Permittee shall justify and recommend a corrective measure alternative using technical, human health, and environmental criteria. The Permittee shall submit summary tables of the corrective measure alternative recommendations. Tradeoffs among health risks, environmental effects, and other pertinent factors shall be highlighted. The Director shall approve the corrective measure alternative or alternatives to be implemented based on the results of Tasks II and III. The following criteria shall be used to select the final corrective measure or measures.

III.A. TECHNICAL

- III.A.1. Performance - corrective measure or measures which are most effective at performing their intended functions and maintaining performance over extended periods of time;
- III.A.2. Reliability - corrective measure or measures which do not require frequent or complex operation and maintenance activities and that have proven effective under waste and facility conditions similar to those anticipated;
- III.A.3. Implementability - corrective measure or measures which can be constructed and operating to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time; and
- III.A.4. Safety - corrective measure or measures which pose the least threat to the safety of nearby residents and environments as well as workers during implementation.

III.B. HUMAN HEALTH

The corrective measure or measures must comply with existing federal and state criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

III.C. ENVIRONMENTAL

The corrective measure or measures posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment shall be favored. The corrective measure(s) shall be assessed as to the degree to which it employs treatment that reduces toxicity, mobility or volume of hazardous wastes and/or hazardous waste constituent(s).

TASK IV: CORRECTIVE MEASURE(S) IMPLEMENTATION

The purpose of the Corrective Measure Implementation program is to design, construct, operate, maintain, and monitor the performance of the corrective measure or measures selected to protect human health and the environment.

IV.A. CORRECTIVE MEASURE IMPLEMENTATION PROGRAM PLAN

The Permittee shall prepare a Corrective Measure Implementation Program Plan. This program shall include the development and implementation of several plans, which require concurrent preparation. It may be necessary to revise plans as the work is performed to focus efforts on a particular problem. The Permittee shall furnish all personnel, materials and services necessary for the implementation of the corrective measure(s).

- IV.A.1. The Permittee shall prepare a Program Management Plan which shall document the overall management strategy for performing the design, construction, operation, maintenance and monitoring of corrective measure(s). The plan shall document the responsibility and authority of all organizations and key personnel involved with the implementation. The Program Management Plan shall also include a description of qualifications of key personnel directing the Corrective Measures Implementation program, including contract personnel.
- IV.A.2. The Permittee shall revise the Community Relations Plan, performed as part of the RCRA Facility Investigation Workplan, to incorporate any changes addressing the community during the design and construction activities.

IV.B. CORRECTIVE MEASURE(S) DESIGN

The Permittee shall prepare final construction plans and specifications to implement the corrective measure(s) at the Facility as defined in the Corrective Measure Study. At a minimum, the following shall be included, but not be limited to:

- IV.B.1. Design plans and specifications:
 - IV.B.1.a. Design strategy and basis.
 - IV.B.1.b. Currently accepted environmental control measures, construction practices and techniques, and the constructability of the design.
 - IV.B.1.c. Assumptions, detailed drawings (e.g., process flow diagrams, general arrangement, and any applicable piping and instrumentation diagrams), equipment and specifications, and material and energy balances (if applicable).
 - IV.B.1.d. Discussion of the possible sources of error and potential operation and maintenance problems.
- IV.B.2. Operations and maintenance plan:
 - IV.B.2.a. Normal and alternate operation and maintenance practices (e.g., tasks for operation, tasks for maintenance, prescribed treatment or operation conditions, and schedule identifying frequency).

- IV.B.2.b. Routine monitoring and laboratory testing (e.g., description of monitoring tasks, required laboratory tests and their interpretation, required Quality Assurance/Quality Control, and a schedule of monitoring frequency).
- IV.B.2.c. Equipment description (including equipment identification, installation of monitoring components, maintenance procedures, and replacement schedule), and records and reporting (e.g., daily operating logs, laboratory records, records for operating costs, reporting emergencies, personnel and maintenance records, and required monthly and annual reports to be submitted to the Director).
- IV.B.2.d. Alternate operating and maintenance procedures to prevent undue hazard due to system failure and analysis of vulnerability and additional resource requirements should a failure occur.
- IV.B.2.e. Safety plan during routine operation and safety tasks in the event of systems failure.
- IV.B.3. Cost estimate
- IV.B.4. Project schedule (identifying timing for initiation and completion of all critical path tasks, dates for completion of the project and major milestones).
- IV.B.5. Construction quality assurance objectives (including but not limited to the responsibility and authority, personnel qualifications, inspection activities, sampling requirements, and documentation).
- IV.B.6. Health and Safety Plan (the Health and Safety Plan developed for the RCRA Facility Investigation shall be modified to address the activities to be performed to implement the corrective measure(s)).
- IV.B.7. Design phases:
 - IV.B.7.a. Preliminary design, approximately 30% design completion. The Permittee shall have field verified the existing condition of the Facility. The technical design requirements of the project shall be at an adequate level of completion to enable a determination if the final design will provide an operable and usable corrective measure. Supporting data and documentation shall be provided with the design documents defining the functional aspects of the program. The Permittee shall include with the preliminary submission design calculations reflecting the same percentage of completion as the designs they support.
 - IV.B.7.b. Intermediate design, approximately 60% completion. The intermediate design shall include the Design Plans and Specifications, Operation and Maintenance Plan, Project Schedule, Quality Assurance Plan and Specifications for the Health and Safety Plan.
 - IV.B.7.c. Equipment start-up and operator training identifying the contractor requirements for providing appropriate service visits by experienced personnel to supervise the installation, adjustment, start-up and operation of the treatment systems, and training covering appropriate operational procedures once the start-up has been successfully accomplished.
 - IV.B.7.d. Additional studies to supplement the available technical corrective measure implementation data may be required. Upon written notification from the Director, the Permittee shall provide sufficient sampling, testing and analysis to optimize the

required treatment and/or disposal operations and systems. A final report of the testing shall include all data taken during the testing and a summary of the results of the studies.

- IV.B.7.e. Submittal of the pre-final design, approximately 95% completion. The pre-final design submittal shall include the Design Plans and Specifications, Operations and Maintenance Plan, Project Schedule, Quality Assurance Plan and Specifications for the Health and Safety Plan.
- IV.B.7.f. Submittal of final design, approximately 100% completion. The final design submittal shall include the Final Design Plans and Specifications, and Final Operation and Maintenance Plan, Final Quality Assurance Plan, Final Project Schedule and Final Health and Safety Plan specifications.

IV.C. CORRECTIVE MEASURE(S) CONSTRUCTION

Following the Director's approval of the final design, the Permittee shall develop and implement a construction quality assurance program to ensure, with a reasonable degree of certainty, that a completed corrective measure(s) meets or exceeds all design criteria, plans, and specifications. The Construction Quality Assurance Plan is a Facility-specific document which must be submitted to the Department for approval prior to the start of construction. At a minimum, the Construction Quality Assurance Plan shall include the elements, which are summarized below. Upon the Director's approval of the Construction Quality Assurance Plan, the Permittee shall construct and implement the corrective measures in accordance with the approved design, schedule, and the Construction Quality Assurance Plan. The Permittee shall also implement the elements of the approved Operation and Maintenance Plan.

- IV.C.1. The responsibility and authority of all organizations and the qualifications of all personnel shall be described in the Construction Quality Assurance Plan.
- IV.C.2. The observations and tests that shall be used to monitor the construction and/or installation of the components of the corrective measure(s) shall be summarized in the Construction Quality Assurance Plan. The plan shall include the scope and frequency of each type or inspection. Inspections shall verify compliance with all environmental requirements and include, but not be limited to, air quality and emissions monitoring records, waste disposal records, etc. The inspections shall also ensure compliance with all health and safety procedures.
 - IV.C.2.a. A preconstruction inspection and meeting shall be held to discuss methods for documenting and reporting inspection data, reviewing the distribution and storage of documents and reports, reviewing work area safety, discussing appropriate modifications to the Construction Quality Assurance Plan, and conducting a site Visit.
 - IV.C.2.b. Upon preliminary project completion, the Permittee shall notify the Director for the purposes of conducting a pre-final inspection which shall consist of a walk-through inspection of the entire site. The inspection is to determine whether the project is complete and consistent with the contract documents and the corrective measures as approved by the Director. The Permittee shall operationally test the treatment equipment. The Permittee shall certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting shall be completed where deficiencies are revealed. This pre-final inspection report shall outline the outstanding construction items, actions required to resolve items, completion date(s) for these items, and the date of the final inspection.

IV.C.2.c. Upon completion of all outstanding construction items, the Permittee shall notify the Director, by certified mail, express mail, or hand delivery, for the purposes of conducting a final inspection. The final inspection shall focus on confirming that outstanding items have been resolved.

IV.D. SAMPLING REQUIREMENTS

The sampling activities, sample size, sample locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems shall be presented in the Construction Quality Assurance Plan.

IV.E. DOCUMENTATION

Reporting requirements for construction quality assurance activities shall be described in detail in the Construction Quality Assurance Plan. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measure reports, and design acceptance reports.

TASK V: REPORTS

V.A. CORRECTIVE MEASURES STUDY REPORTS

The Permittee shall prepare Corrective Measures Study reports in accordance with the schedule specified in Table 5 of this Permit.

V.B. PROGRESS REPORTS

The progress reports shall contain, at a minimum, the following information:

- A description and estimate of the percentage of the Corrective Measures Study completed;
- Summaries of all findings;
- Summaries of all changes made in the Corrective Measures Study during the reporting period;
- Summaries of all contacts with representative(s) of the local community, public interest groups or state government during the reporting period;
- Summaries of all problems or potential problems encountered during the reporting period;
- Actions being taken to rectify problems;
- Changes in personnel during reporting period;
- Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

V.C. CORRECTIVE MEASURE CONSTRUCTION REPORT

At the completion of construction, the Permittee shall submit a Corrective Measure Construction report to the Director. The report shall establish that the project was built according to the specifications and that the corrective measure is performing adequately. The Corrective Measure Construction report shall include all of the daily inspection summary reports; inspection summary reports, inspection data sheets, problem identification and corrective measure reports, block evaluation reports, photographic reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications and as-built drawings. The report shall include, but not be limited to, the following elements:

- Certification of the design and construction;
- Explanation of any modifications to the plans and why these were necessary;
- Listing of the criteria established for judging the functioning of the corrective measure and also explaining any modification to these criteria;
- Results of Facility monitoring, indicating that the corrective measure shall meet or exceed the performance criteria; and
- Explanation of the operation and maintenance (including monitoring) to be undertaken at the Facility.

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TABLES

TABLE 1
<p>SOLID WASTE MANAGEMENT UNITS (SWMUs) AT THE INEEL UNDER INVESTIGATION FOR RELEASES</p> <p>To be submitted by Permittee in accordance with Permit Condition II.K.3. of this Permit</p>

TABLE 2
<p>SWMUs AT THE INEEL WITH KNOWN RELEASES</p> <p>To be submitted by Permittee in accordance with Permit Condition II.K.3. of this Permit</p>

TABLE 3
<p>SWMUs AT THE INEEL WITH NO FURTHER ACTION DETERMINATIONS</p> <p>To be submitted by Permittee in accordance with Permit Condition II.K.3. of this Permit</p>

TABLE 4

RCRA FACILITY INVESTIGATION COMPLIANCE SCHEDULE FOR SOLID WASTE MANAGEMENT UNITS (SWMUs) WITH SUSPECTED RELEASES	
<u>RFI ACTIVITY</u>	<u>DUE DATE</u>
SUBMIT RFI - PHASE I WORKPLAN (TASK I.D.)	Within 180 calendar days of a final determination of applicability made in accordance with Permit Condition VII.A.2.
SUBMIT FINAL TASK I REPORT	Within 270 calendar days of the Director's approval of the RFI – Phase I workplan.
SUBMIT DRAFT RFI - PHASE II (TASK II AND III) WORKPLAN AND SCHEDULE	Within 90 calendar days of the Director's approval of the final Task I Report
INITIATE RFI - PHASE II (TASK II AND III) ACTIVITIES	Within 60 calendar days of the Director's approval of the Task II and III workplan and schedule.
SUBMIT TASK IV DRAFT REPORT	As specified in the Director's approved RFI - Phase II (Task II and III) workplan and schedule.
SUBMIT TASK IV FINAL AND SUMMARY REPORTS	As specified in the Director's approved RFI - Phase II (Task II and III) workplan and schedule.
PROGRESS REPORTS ON TASKS I THROUGH IV	Quarterly (every 90 calendar days) beginning 90 calendar days after the effective date of this Permit.

TABLE 5

RCRA FACILITY INVESTIGATION COMPLIANCE SCHEDULE
 FOR SOLID WASTE MANAGEMENT UNITS (SWMUs)
 WITH KNOWN RELEASES

RFI ACTIVITY

DUE DATE

SUBMIT FINAL TASK I REPORT (excluding RFI - Phase I, Task I.D.)	Within 180 calendar days of the final determination that the Corrective Action portion of this Permit must be implemented.
SUBMIT DRAFT RFI-PHASE II (Task II & III) WORKPLAN and SCHEDULE	Within 90 calendar days of the Director's approval of the final Task I Report.
INITIATE RFI-PHASE II (TASK II & III) ACTIVITIES	Within 45 calendar days of the Director's approval of the Task II and III workplan and schedule
SUBMIT TASK IV DRAFT REPORT	As specified in the Director's approved RFI-Phase II (Task II and III) workplan and schedule.
SUBMIT TASK IV FINAL & SUMMARY REPORTS	As specified in the Director's approved RFI-Phase II (Task II and III) workplan and schedule.
PROGRESS REPORTS ON TASKS I through IV	Quarterly (every 90 calendar days) beginning 90 calendar days of the effective date of this Permit.

TABLE 6	
CORRECTIVE MEASURES STUDY AND IMPLEMENTATION COMPLIANCE SCHEDULE FOR SOLID WASTE MANAGEMENT UNITS (SWMUs)	
<u>CMS SUBMISSION/CMI SUBMISSION</u>	<u>DUE DATES</u>
Submit CMS Workplan (TASK I & II)	Within 60 calendar days of the Director's approval of the RCRA Facility Investigation Final Report.
Submit Draft CMS Report (TASK I, II, & III)	Within 300 calendar days of the Director's approval of the CMS Workplan.
Submit Final CMS Report (TASK I, II, & III)	Within 60 calendar days of receiving the Director's comments on the draft CMS Report.
Submit Draft CMI Program Plan (TASK IV.A)	Within 90 calendar days of the Director's approval of the final CMS report.
Submit Final CMI Program Plan (TASK IV.A)	Within 60 calendar days of receiving the Director's comments on the draft CMI Program Plan.
Submit Corrective Measures Design Preliminary Design Approximately 30% Complete	As specified in the Director's approved CMI Program Plan.
Submit Corrective Measures Design Preliminary Design Approximately 60% Complete	As specified in the Director's approved CMI Program Plan.
Submit Corrective Measures Design Preliminary Design Approximately 95% Complete	As specified in the Director's approved CMI Program Plan.
Submit Final Corrective Measures Design	As specified in the Director's approved CMI Program Plan.
Progress Reports on Tasks I through IV	Quarterly, every 90 calendar days beginning 90 calendar days after the Director's approval of the final RFI report.
Submit Draft CQA Program Plan	As specified in the Director's approved CMI Program plan.
Submit Final CQA Program Plan	Within 60 calendar days of the Director's approval of the draft CQA.
Construction of Corrective Measures	Within 60 calendar days of the Director's approval of the final CQA.
Pre-Final Inspection	Forty-five (45) calendar days following report of pre-final inspection
Corrective Measures Construction Report	Within 90 calendar days following completion of construction.
Corrective Measures Implementation Quarterly Progress Reports	Quarterly, every 90 calendar days.