

IDAHO

DEPARTMENT OF ENVIRONMENTAL QUALITY



**HWMA STORAGE and
TREATMENT PERMIT for the
IDAHO NUCLEAR TECHNOLOGY and
ENGINEERING CENTER and the
RADIOACTIVE WASTE MANAGEMENT
COMPLEX**

on the

IDAHO NATIONAL LABORATORY

EPA ID NO. ID4890008952

Effective Date: April 27, 2009

Revision Date: December 20, 2019

Book 3A of 3

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

INTRODUCTION AND SIGNATURE PAGE

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

The Permittee shall comply with all of the terms and conditions of this Partial Permit (Permit) and Attachments 1 through 10 of this Permit. The Permittee shall comply with all applicable state regulations, including IDAPA 58.01.05.004 through 58.01.05.013 [40 Code of Federal Regulations (CFR), Parts 124, 260 through 266, 268, and 270], and as specified in this Permit.

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

This Permit is based upon the administrative record, as required by IDAPA 58.01.05.013 [40 CFR § 124.9]. The Permittee’s failure, in the application or during the permit issuance process, to fully disclose all relevant facts, or the Permittee’s misrepresentation of any relevant facts, at anytime, shall be grounds for the termination or modification of this Permit and/or initiation of an enforcement action, including criminal proceedings. To the extent there are inconsistencies between the Permit and the attachments the language of the permit shall prevail. The Permittee must inform the Director of the Idaho Department of Environmental Quality (hereinafter referred to as “Director”) of any deviation from the permit conditions or changes in the information on which the application is based, which would affect the Permittee’s ability to comply or actual compliance with the applicable regulations or permit conditions, or which alters any permit condition in any way. The Director shall enforce all conditions of this Permit, which are designated in this Permit as state requirements. Any challenges of any permit condition that concern requirements shall be appealed to the Board of Environmental Quality, in accordance with IDAPA 58.01.05.996 and the Idaho Department of Environmental Quality Rules and Regulations 58.05.03.000 *et seq.*, “Rules Governing Contested Cases and Declaratory Rulings.”

The United States Environmental Protection Agency (EPA) shall maintain an oversight role of the state-authorized program and in such capacity, shall enforce any permit condition based on state requirements if, in the EPA’s judgment, the Director should fail to enforce that permit condition. Any challenges to the EPA-enforced conditions shall be appealed to the EPA, in accordance with 40 CFR § 124.19.

This Permit is effective as of April 27, 2009 and shall remain in effect until April 26, 2019 unless, in accordance with IDAPA 58.01.05.012, the Permit is revoked and reissued [40 CFR § 270.41], modified [40 CFR § 270.42, Appendix I.A.6], terminated [40 CFR § 270.43], or continued [40 CFR § 270.51].

Date

Toni Hardesty, Director
Idaho Department of Environmental Quality

TABLE OF CONTENTS

TABLE OF CONTENTS	2
LIST OF ATTACHMENTS.....	6
DEFINITIONS.....	11
ACRONYMS AND ABBREVIATIONS.....	15
MODULE I - STANDARD PERMIT CONDITIONS	19
I.A. EFFECT OF PERMIT	19
I.B. ENFORCEABILITY	19
I.C. OTHER AUTHORITY	20
I.D. PERMIT ACTIONS.....	20
I.E. SEVERABILITY	20
I.F. DUTIES TO COMPLY	21
I.G. DUTY TO REAPPLY	21
I.H. PARTIAL-PERMIT EXPIRATION	21
I.I. CONTINUATION OF EXPIRING PERMIT	21
I.J. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE	21
I.K. DUTY TO MITIGATE.....	22
I.L. PROPER OPERATION AND MAINTENANCE	22
I.M. DUTY TO PROVIDE INFORMATION	22
I.N. INSPECTION AND ENTRY	22
I.O. MONITORING AND RECORDS.....	23
I.P. REPORTING PLANNED CHANGES	24
I.Q. REPORTING ANTICIPATED NONCOMPLIANCE	24
I.R. CERTIFICATION OF CONSTRUCTION OR MODIFICATION	24
I.S. TRANSFER OF PERMIT.....	24
I.T. TWENTY-FOUR HOUR REPORTING.....	25
I.U. OTHER NONCOMPLIANCE.....	26
I.V. OTHER INFORMATION	26
I.W. SIGNATORY REQUIREMENT	26
I.X. CONFIDENTIAL INFORMATION	27
I.Y. REPORTS, NOTIFICATIONS, AND SUBMISSIONS.....	27
I.Z. DOCUMENTS TO BE MAINTAINED AT THE FACILITY.....	27
MODULE II - GENERAL FACILITY CONDITIONS	29
II.A. DESIGN AND OPERATION OF FACILITY	29

II.B.	RECEIPT OF HAZARDOUS AND/OR MIXED WASTE AND DEBRIS.....	29
II.C.	WASTE ANALYSIS PLAN	30
II.D.	SECURITY	31
II.E.	INSPECTION PLAN.....	31
II.F.	TRAINING PLAN.....	31
II.G.	PREPAREDNESS AND PREVENTION	32
II.H.	CONTINGENCY PLAN	32
II.I.	MANIFEST SYSTEM.....	33
II.J.	RECORD KEEPING AND REPORTING	33
II.K.	CLOSURE.....	35
II.L.	EQUIVALENT MATERIALS/INFORMATION	35
II.M.	APPLICABLE LAND DISPOSAL RESTRICTION SPECIAL REQUIREMENTS	35
II.N.	AIR EMISSION STANDARDS FOR PROCESS VENTS.....	36
II.O.	COMPLIANCE SCHEDULE	37
II.P.	SODIUM-POTASSIUM ALLOY (NaK) OR NaK CONTAINING WASTE SPECIAL REQUIREMENTS.....	38
	MODULE III - CONTAINER STORAGE AND CONTAINER TREATMENT	39
III.A.	PERMITTED CONTAINER STORAGE AND CONTAINER TREATMENT AREAS.....	39
III.B.	PERMITTED AND PROHIBITED WASTES IN THE CONTAINER STORAGE AND CONTAINER TREATMENT AREAS	39
III.C.	CONDITION OF CONTAINERS.....	46
III.D.	COMPATIBILITY OF WASTE WITH CONTAINERS	46
III.E.	MANAGEMENT OF CONTAINERS.....	46
III.F.	IGNITABLE OR REACTIVE WASTES.....	46
III.G.	INCOMPATIBLE WASTE	46
III.H.	SECONDARY CONTAINMENT	47
III.I.	INSPECTION SCHEDULES AND PROCEDURES.....	47
III.J.	RECORD KEEPING.....	47
III.K.	CLOSURE.....	47
	MODULE IV - WASTE PILES.....	48
IV.A.	PERMITTED WASTE PILE STORAGE AREAS	48
IV.B.	DESIGN AND OPERATING REQUIREMENTS	48
IV.C.	PERMITTED & PROHIBITED WASTES IN THE WASTE PILE STORAGE AREAS	48
IV.D.	IGNITABLE OR REACTIVE WASTES.....	49

IV.E. INCOMPATIBLE WASTE	49
IV.F. INSPECTION SCHEDULES AND PROCEDURES.....	49
IV.G. RECORD KEEPING.....	50
IV.H. CLOSURE.....	50
MODULE V - TANK SYSTEM STORAGE AND/OR TANK TREATMENT	51
V.A. PERMITTED STORAGE AND TREATMENT TANKS	51
V.B. PERMITTED AND PROHIBITED WASTES IN THE STORAGE AND TREATMENT TANKS	52
V.C. SECONDARY CONTAINMENT	54
V.D. NEW TANK SYSTEMS	55
V.E. TANK SYSTEM OPERATING CONDITIONS	55
V.F. RESPONSE TO LEAKS OR SPILLS	55
V.G. INSPECTION SCHEDULES AND PROCEDURES.....	57
V.H. RECORD KEEPING AND REPORTING	57
V.I. CLOSURE.....	58
MODULE VI - MISCELLANEOUS UNIT TREATMENT	59
VI.A. PERMITTED MISCELLANEOUS TREATMENT UNITS.....	59
VI.B. PERMITTED/PROHIBITED WASTE IN THE MISCELLANEOUS TREATMENT UNITS	59
VI.C. IGNITABLE OR REACTIVE WASTES.....	65
VI.D. INCOMPATIBLE WASTE	65
VI.E. SECONDARY CONTAINMENT SYSTEMS.....	65
VI.F. INSPECTION SCHEDULES AND PROCEDURES.....	66
VI.G. RESPONSE TO LEAKS OR SPILLS	66
VI.H. RECORD KEEPING AND REPORTING	67
VI.I. CLOSURE.....	68
MODULE VII - MISCELLANEOUS UNIT STORAGE.....	69
VII.A. PERMITTED MISCELLANEOUS TREATMENT UNITS.....	69
VII.B. PERMITTED/PROHIBITED WASTE IN THE MISCELLANEOUS TREATMENT UNITS	69
VII.C. IGNITABLE OR REACTIVE WASTES.....	69
VII.D. INCOMPATIBLE WASTE	69
VII.E. SECONDARY CONTAINMENT SYSTEMS.....	70
VII.F. INSPECTION SCHEDULES AND PROCEDURES.....	71
VII.G. RESPONSE TO LEAKS OR SPILLS	71
VII.H. RECORD KEEPING AND REPORTING	72
VII.I. CLOSURE.....	73

MODULE VIII - CORRECTIVE ACTION.....	74
VIII.A. APPLICABILITY	74
VIII.B. STANDARD CONDITIONS	74
VIII.C. NOTIFICATION REQUIREMENTS FOR, AND ASSESSMENT OF, NEWLY-IDENTIFIED SOLID WASTE MANAGEMENT UNITS	76
VIII.D. RCRA FACILITY INVESTIGATION.....	78
VIII.E. INTERIM MEASURES.....	79
VIII.F. DETERMINATION OF NO FURTHER ACTION	80
VIII.G. CORRECTIVE MEASURES STUDY AND IMPLEMENTATION	81
VIII.H. REPORTING REQUIREMENTS	82
VIII.I. MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE OF COMPLIANCE.....	82
APPENDIX A - RCRA FACILITY INVESTIGATION.....	85
APPENDIX B - CORRECTIVE MEASURES STUDY AND IMPLEMENTATION.....	102
TABLES	112

LIST OF ATTACHMENTS

The following documents are excerpts from the Permittee's Administrative Record, *i.e.*, Volume 18 of the INL 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. If the language of the Permit conflicts with either the attachments or the original application, the language in the Permit shall prevail. These incorporated Attachments are enforceable conditions of this Permit as modified by the specific permit condition.

BOOK 1

ATTACHMENT 1

FACILITY and PROCESS DESCRIPTION, consisting of:

INL PART A PERMIT APPLICATION, of Volume 18, Book 1, EPA Form 8700-12, 8700-13 A/B RCRA Subtitle C Site Identification Form, Modified Date: August 23, 2018; and EPA Form 8700-23 Hazardous Waste Permit Information Form, Modified Date: August 23, 2018

FACILITY DESCRIPTION, Section B, of Volume 18, Book 1, Modified Date: February 12, 2016

PROCESS DESCRIPTION, Section D including Appendices D-1, D-2, and D-3, of Volume 18, Book 1, Modified Date: August 23, 2018

ATTACHMENT 1a

CPP-1617 FACILITY and PROCESS DESCRIPTION, consisting of:

FACILITY DESCRIPTION, Section B, of Volume 18, Book 1, Modified Date: February 12, 2016

PROCESS DESCRIPTION, Section D, of Volume 18, Book 1, Modified Date: August 23, 2018

ATTACHMENT 2

WASTE ANALYSIS PLAN consisting of:

WASTE ANALYSIS PLAN, Section C (including Tables, Figures and Waste Analysis Plan Appendices), of Volume 18, Book 1, Modified Date: August 23, 2018

ATTACHMENT 3

SECURITY, consisting of:

PROCEDURES TO PREVENT HAZARDS, Section F, of Volume 18, Book 1, Modified Date: August 7, 2013.

SECURITY, Section F-1, of Volume 18, Book 1, Modified Date: August 7, 2013

- ATTACHMENT 4** INSPECTIONS, consisting of:

INSPECTIONS SCHEDULE, Section F-2 (Including Appendices F-1 and F-2), of Volume 18, Book 1, Modified Date: August 23, 2018
- ATTACHMENT 5** PERSONNEL TRAINING, consisting of:

PERSONNEL TRAINING, Section H, of Volume 18, Book 1, Modified Date: February 12, 2016.
- ATTACHMENT 6** PROCEDURES TO PREVENT HAZARDS, consisting of:

PREPAREDNESS and PREVENTION DOCUMENTATION, Sections F-3 through F-5, of Volume 18, Book 1, Modified Date: August 23, 2018
- ATTACHMENT 7** CONTINGENCY PLANS, consisting of:

INTEC CONTINGENCY PLAN, Section G, of Volume 18, Book 1, Modified Date: August 23, 2018
- ATTACHMENT 8** CLOSURE PLANS, consisting of:

CLOSURE AND POSTCLOSURE REQUIREMENTS, Section I, of Volume 18, Book 1, Modified Date: May 19, 2015.
- ATTACHMENT 8a** RADIOACTIVE MIXED WASTE STAGING FACILITY (CPP-1617) CLOSURE PLAN, consisting of:

CLOSURE AND POST CLOSURE REQUIREMENTS, Section I, of Volume 18, Book 1, February 12, 2016
- ATTACHMENT 9** WASTE PILE DESIGN EXEMPTION, consisting of:

REQUEST FOR WAIVER TO DESIGN AND OPERATING REQUIREMENTS FOR WASTE PILES, of Volume 18, Book 1, April 27, 2009.
- ATTACHMENT 10** PERMIT REVISION LOG, consisting of:

PERMIT REVISION LOG, of Volume 18, Book 1, Modified Date: December 20, 2019

BOOK 2
ATTACHMENT 1 APPENDICES INFORMATION

- APPENDIX 1** FACILITY PHOTOS, of Volume 18, Book 2, Modified Date: July 2, 2015.
- APPENDIX 2** FACILITY DRAWINGS, of Volume 18, Book 2, Modified Date: July 2, 2015.
- APPENDIX 3** CONCRETE CONSTRUCTION SPECIFICATIONS, of Volume 18, Book 2, April 27, 2009.
- APPENDIX 4** STRUCTURAL Steel Specification, of Volume 18, Book 2, April 27, 2009.
- APPENDIX 5** PHYSICAL PROPERTIES AND CHEMICAL RESISTANCE FOR SERIES 300 STAINLESS STEEL, of Volume 18, Book 2, April 27, 2009.
- APPENDIX 6** PROFESSIONAL ENGINEER'S CERTIFICATION OF SINKS, ULTRASONIC CLEANER, AND HOLDUP/COLLECTION TANKS, of Volume 18, Book 2, April 27, 2009.
- APPENDIX 7** PROFESSIONAL ENGINEER'S ASSESSMENT OF THE HFLS TANK DESIGN, of Volume 18, Book 2, April 27, 2009.
- APPENDIX 8** PROFESSIONAL ENGINEER'S ASSESSMENT OF THE HFLS INSTALLATION, of Volume 18, Book 2, April 27, 2009.
- APPENDIX 9** FDP SLAB TANK CERTIFICATIONS, of Volume 18, Book 2, April 27, 2009.

BOOK 3A WASTE STORAGE AND TREATMENT at the RWMC SDA

ATTACHMENT 1 FACILITY and PROCESS DESCRIPTION, consisting of:

INL PART A PERMIT APPLICATION, of Volume 18, Book 3A, RWMC SDA,
Revision Date: December 17, 2019

FACILITY DESCRIPTION, Section B - FACILITY DESCRIPTION and
SECTION D - PROCESS DESCRIPTION, of Volume 18, Book 3A,
RWMC SDA, Revision Date: December 17, 2019

ATTACHMENT 2 WASTE ANALYSIS PLAN consisting of:

WASTE ANALYSIS PLAN, Section C, of Volume 18, Book 3A, RWMC SDA,
Revision Date: December 17, 2019

- ATTACHMENT 3** SECURITY, consisting of:
Security, Section F-1, of Volume 18, Book 3A, RWMC SDA, Revision Date: February 12, 2016
- ATTACHMENT 4** INSPECTIONS, consisting of:
INSPECTION SCHEDULE, Section F-2 (Including Appendices F-1 and F-2), of Volume 18, Book 3A, RWMC SDA, Revision Date: December 17, 2019
- ATTACHMENT 5** PERSONNEL TRAINING, consisting of:
PERSONNEL TRAINING, Section H, of Volume 18, Book 3A, RWMC SDA, Revision Date: December 17, 2019
- ATTACHMENT 6** PROCEDURES TO PREVENT HAZARDS, consisting of:
PREPAREDNESS and PREVENTION DOCUMENTATION, Sections F-3 through F-5, of Volume 18, Book 3A, RWMC SDA, Revision Date: December 17, 2019
- ATTACHMENT 7** CONTINGENCY PLANS, consisting of:
RWMC CONTINGENCY PLAN, Section G, of Volume 18 Book 3A, RWMC SDA, Revision Date: December 17, 2019
- ATTACHMENT 8** CLOSURE PLANS, consisting of:
CLOSURE AND POSTCLOSURE REQUIREMENTS, Section I, of Volume 18, Book 3A, RWMC SDA, Revision Date: December 20, 2019
- ATTACHMENT 9** PERMIT REVISION LOG, consisting of:
PERMIT REVISION LOG, of Volume 18, Book 3A, RWMC SDA, Revision Date: December 20, 2019

BOOK 3B APPENDICES INFORMATION
LIST OF APPENDICES:

- APPENDIX 1** RWMC FACILITY DRAWINGS, of Volume 18, Book 3B, RWMC SDA, Revision Date: December 17, 2019
- APPENDIX 2** 100-YEAR FLOODPLAIN AND 25-YEAR RUNOFF ANALYSES FOR THE RADIOACTIVE WASTE MANAGEMENT COMPLEX AREA AT THE IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY (INEEL/EXT-02-00093), of Volume 18, Book 3B, RWMC SDA, Revision Date: October 18, 2012

INL INTEC/RWMC Partial-Permit
Permit Number: ID4890008952
Effective Date: April 27, 2009
Revision Date: June 8, 2017
List of Attachments, Page 10 of 115

APPENDIX 3

REPORT 228 PROJECT NO.: 23927, 25580 MANAGING FREE LIQUID
IN NEWLY GENERATED WASTE DRUMS, of Volume 18, Book 3B,
RWMC SDA, Revision Date: October 18, 2012

DEFINITIONS

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

- a. "Application" shall mean the following:
The HWMA/RCRA Part B Permit Application for the Idaho National Engineering and Environmental Laboratory, Volume 18, for the Idaho Nuclear Technology and Engineering Center, Books 1 and 2, Revision 3, dated December 1999 and all DEQ approved Permit Modification Requests as detailed in Attachment 10, Permit Revision Log.
- 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 Laboratory for a total of approximately 890 square miles, or 601,260 acres. The metes and bounds of the INL 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. "INL Site Treatment Plan" shall mean the plan prepared by the United States Department of Energy in 1995, which identifies how DOE proposes to treat INL's mixed waste with existing technologies or develop technologies where technologies do not exist or need modification, as approved by DEQ pursuant to the Federal Facility Compliance Act of 1992, Pub. L. 102-386, 106 Stat. 1505 (1992). It allows for updates at quarterly meetings and annual revisions that involve public comment.
- o. "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)].
- p. "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).
- q. "Hazardous Waste Management Unit" shall mean those operable units subject to the requirements of IDAPA 58.01.05.012 [40 CFR § 270.14-.25].
- r. "INL" shall mean the Idaho National 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 INTEC and RWMC, is Fluor Idaho, LLC (Fluor Idaho). Fluor Idaho reports to the DOE-ID.

- w. "On-Site" shall mean on the "facility" as defined in Subpart i 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. "Process Vent" means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distilled receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.
- aa. "RCRA" shall mean the Resource Conservation and Recovery Act of 1976, as amended by HSWA in 1984.
- bb. "Readily retrievable" shall mean requested documents/information can be procured in hard copy in a time frame that meets the needs of a DEQ inspector or other person needing the data. At a minimum, requested documents must be available at the start of the next business day.
- cc. "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).
- dd. "Remote-Handled (RH) Waste Disposition Project" shall mean the project described in the Site Treatment Plan that collects RH waste from storage areas at the INL site and prepares them for shipment and disposal. This project shall manage RH mixed transuranic (TRU) waste and RH mixed low-level waste (MLLW). There are contaminants within these waste streams that present significant challenges, specifically sodium and sodium/potassium (NA and NaK), which will require treatment prior to disposal.
- ee. "Secondary Waste" shall mean waste generated as a result of hazardous waste operations (e.g., PPE, filters, plastic sheeting, etc.).
- ff. "Sodium Deactivation and Sodium Distillation" in this document are inclusive for sodium and sodium potassium alloy (NaK)
- gg. "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.

- hh. "Storage" shall mean holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.
- ii. "Treatment Area" shall mean the area where treatment is conducted.
- jj. Volume 18 shall mean the *HWMA/RCRA part B Permit Reapplication for the Idaho National Laboratory, Volume 18 – Idaho Nuclear Technology and Engineering Center: Debris Treatment Process; Holdup and Collection Tanks; CPP-659/-1659 Storage; CPP-666 FDP Cell Container Storage and Slab Tank Storage; CPP1617 Container Storage, EPA ID No. ID4890008952, Books 1 and 2 of 2, December 2008. Additionally, Volume 18 shall mean Books 3A and 3B - Radioactive Waste Management Complex – WMF-1617 Storage and Treatment Units (S01, X02, X99), WMF-1619 Storage and Treatment Units (S01, X99), and WMF-698 Storage Unit (S01).*

NOTE: Books 1-2 of this Volume 18 Permit are applicable to INTEC storage and treatment units. Books 3A and 3B of this Permit are only applicable to RWMC storage and treatment units. The Permit Conditions of this Permit are applicable to both the INTEC and RWMC units, unless otherwise specified in the Permit Condition.

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.

ACRONYMS AND ABBREVIATIONS

ACI	American Concrete Institute
AEA	Atomic Energy Act
AISC	American Institute of Steel Construction
AK	Acceptable Knowledge
ALARA	As Low As Reasonably Achievable (Radiation Exposures)
AMWTP	Advanced Mixed Waste Treatment Project
ANSI	American National Standards Institute
APHA	American Public Health Association
ARP	Accelerated Retrieval Project
ARS	Argon Repackaging Station
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AVAS	Automatic Voice Annunciating System
AWS	American Welding Society
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)
CITRC	Critical Infrastructure Test Range Center
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
EDMS	Electronic Document Management System
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	Fluorinel 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
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
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
IRT	Incident Response Team
ISC	Interim Storage Container
IWTS	Integrated Waste Tracking System
LDR	Land Disposal Restrictions
LEPC	Local Emergency Planning Committee
LLW	Low-Level Waste
LWFC	Liquid Waste Facilities Closure
M&O	Management and Operations
MLLW	Mixed Low-Level Waste
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
ppmw	Parts per Million weight percent
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
RWDP	Remote-Handled Waste DispositionProject
RWMC	Radioactive Waste Management Complex
RMWSF	Radioactive Mixed Waste Staging Facility
RWMIS	Radioactive Waste Management Information System
RTC	Reactor Technology Complex
RTR	Real Time Radiography
SAP	Sampling and Analysis Plan
SAT	Systematic Approach to Training
SARA	Superfund Amendments and Reauthorization Act of 1986
SCBA	Self Contained Breathing Apparatus
SDA	Subsurface Disposal Area
SDS	Sodium Distillation System
SOP	Standard Operating Procedure
SPCC	Spill Prevention, Control, and Countermeasures
SPERT	Special Power Excursion Reactor Test
SRC	Shipment Request and Certification
SRP	Sludge Repackage Project
SS	Shift Supervisor
SSS	Secondary Sodium System (located at MFC-766)
SST	Stainless Steel Tray
STP	INL Site Treatment Plan
SW-846	Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
SWMU	Solid Waste Management Unit
TCLP	Toxicity Characteristic Leaching Procedure
TFF	Tank Farm Facility
TLD	Thermoluminescent Dosimeter
TMI	Three-Mile Island
TOC	Total Organic Carbon
TRU	Transuranic
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
WDDF	Waste Determination and Disposition Form
WIPP	Waste Isolation Pilot Project
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 INL 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.D.6. The Permittee shall ensure that Attachment 10 is current, consistent with Permit Condition I.D.5.

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 ten (10) years from the effective date of this Permit.

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, as specified in IDAPA 58.01.05.012 [40 CFR § 270.30(c)].

I.K. DUTY TO MITIGATE

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

I.L. PROPER OPERATION AND MAINTENANCE

The Permittee shall, at all times, properly operate and maintain all facilities and controls (and related appurtenances), which are installed or used by the Permittee to achieve compliance with the conditions of this Permit, as specified in IDAPA 58.01.05.012 [40 CFR § 270.30(e)]. 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, as specified in IDAPA 58.01.05.012 [40 CFR § 270.30(h)]. 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 INL 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(l)(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 INL 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 INL, 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.T.5. If the facility stops operations in response to a fire, explosion, or release, a report must be submitted within 15 days that includes the following information:

- Name, title, and telephone number of the individual submitting the report;
- Date, time and type of incident;
- Location and suspected cause of the incident;
- Name and quantity of materials involved, if any;
- Any leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment;
- All changes made to the operation of the facility to ensure that the event does not recur.

I.T.5.a. If the required information is provided electronically or verbally within 24 hours of the incident, DEQ, at its' discretion, may provide a written waiver of this reporting requirement.

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. (Reports shall be due on February 1 and August 1 of each year.) 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
c/o Hazardous Waste Program Manager
Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706-1255
Telephone No. (208) 373-0502

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

The 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 a 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 may be maintained at INTEC records storage, RWMC records storage, records storage in Idaho Falls, and/or Electronic Document Management System [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 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 included in this partial permit 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. At the INTEC only (not applicable to the RWMC units identified in Books 3A and 3B of this Permit), 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. At the INTEC only (not applicable to the RWMC units identified in Books 3A and 3B of this Permit), 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 INL 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. At the INTEC only (not applicable to the RWMC units identified in Books 3A and 3B of this Permit), 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. At the INTEC only (not applicable to the RWMC units identified in Books 3A and 3B of this Permit), 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. At the INTEC only (not applicable to the RWMC units identified in Books 3A and 3B of this Permit), 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. At the INTEC only (not applicable to the RWMC units identified in Books 3A and 3B of this Permit), 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 (Attachment 2) provisions, in accordance with IDAPA 58.01.05.008 and 58.01.05.011 [40 CFR §§ 264.13 and 268.7] 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. At a minimum, the Permittee shall maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to perform analyses, the Permittee shall notify the laboratory in writing of the waste analysis conditions it is to meet, in order that waste analysis conditions of the Permit are met.

II.C.3. The Permittee may use process knowledge (i.e., Acceptable Knowledge) for characterization as specified in Attachment 2 of this Permit. AK documentation shall be maintained in an auditable record (i.e., Operating Record) and confirmed using visual examination.

II.D. SECURITY

The Permittee shall comply with the Security Provisions of IDAPA 58.01.05.008 [40 CFR § 264.14] and the INL site-specific security measures 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 and retain the Inspection Procedures, Inspection Schedules, Inspection Logs and Records required by Permit Condition II.E., 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 INL, 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 record inspections on the Inspection Logs and Inspection Log Sheets, required by Permit Condition II.E., 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 INL 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/RWMC 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 INL 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), Room 306 (Equipment Decon Storage Room), Room 308 (Remote Decon Cell), and Room 309 (Filter Handling Cell) 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 INL 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 activating 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 INL, 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 March 1 of each year, submit to the Director a waste minimization certification, pursuant to IDAPA 58.01.05.008 [40 CFR 264.73(b)(9)], that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is 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.5. of this Permit and include, at a minimum, the following general operating and reporting requirements:
 - II.J.4.a. The Permittee shall submit to the Director detailed descriptions of any programs 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.b.1. A list of generators who received information from the Permittee according to Permit Condition II.J.4.a of this Permit.
 - II.J.4.b.2. A list of generators who used the Permittee's contractor services on a waste minimization program.
 - II.J.4.b.3. 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. A waste minimization review and plan shall be submitted to the Director by March 31, 2011 and every four (4) years thereafter, in accordance with Permit Condition II.J.4. of this Permit. The review and plan shall address the entire INL, unless otherwise approved by the DEQ.
- II.J.6. 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 and RWMC.
- 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.K.4. The Permittee shall commence closure of the RWMC Hazardous Waste Management Units, in accordance with IDAPA 58.01.05.08 [40 CFR 264.113(a)], no later than ninety (90) calendar days after the completion of waste storage and treatment activities, as specified in Book 3A/B and Attachment 8.

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 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.

II.M. APPLICABLE LAND DISPOSAL RESTRICTION SPECIAL REQUIREMENTS

- II.M.1 The Permittee shall comply with all applicable Land Disposal Restriction (LDR) requirements set forth in IDAPA 58.01.05.011 [40 CFR § 268] for all non-WIPP destined waste and the INL Site Treatment Plan (STP) (10/31/95), as applicable and amended.

II.N. AIR EMISSION STANDARDS FOR PROCESS VENTS

- II.N.1. The CPP-666 Sodium Distillation System (SDS) is located in Room SB-8. The SDS off-gas is vented to the FDP Cell, through the FDP Cell Off-Gas and CPP-666 HEPA filters, and discharged to the CPP-666 stack through a process vent, therefore, IDAPA 58.01.05.008 [40 CFR § 264.1031] is applicable.
- II.N.2. The Permittee shall determine the applicability of IDAPA 58.01.05.008 [40 CFR Part 264 Subpart AA] by documenting the total organic concentration in all feed sources to the SDS.
 - II.N.2.a. If the SDS manages only mixed hazardous waste with total organic concentrations less than 10 ppmw, then IDAPA 58.01.05.008 [40 CFR Part 264 Subpart AA] does not apply.
 - II.N.2.b. If the SDS manages mixed hazardous waste with total organic concentrations greater than or equal to 10 ppmw, then IDAPA 58.01.05.008 [40 CFR Part 264 Subpart AA] applies.
- II.N.3. The Permittee shall document compliance with the IDAPA 58.01.05.008 [40 CFR Part 264 Subpart AA] standards by:
 - II.N.3.a. Reducing the input total organic concentrations to the SDS to less than 10 ppmw for all wastes processed; or
 - II.N.3.b. Reducing total organic emissions from all affected process vents at INL below 1.4 kg/h (3.0 lb/hr) and 2.8 Mg/yr (3.1 tons/yr); or
 - II.N.3.c. Reducing, by means of a control device, total organic emissions from all affected process vents at INL by 95 weight percent.
- II.N.4. The Permittee shall record the following information in the Facility Operating Record, in accordance with IDAPA 05.01.008 [40 CFR § 264.1035]:
 - II.N.4.a. Up-to-date documentation of the applicability and/or compliance with the process vent standards in Permit Conditions II.N.3., including:
 - II.N.4.a.1. Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility [i.e., the total emissions for all affected vents at the facility, and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan)].
 - II.N.4.a.2. Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and

concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If any action is taken (e.g., managing a waste of different composition or increasing operating hours of affected waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

- II.N.5. Records of the monitoring, operating, and inspection information, required by Permit Condition II.N.4., shall be maintained in accordance with Permit Conditions I.Z.1.c. and I.Z.2.
- II.N.6. Information and data used to determine whether any other INL process vents are subject to the requirements of IDAPA 58.01.05.008 [40 CFR Part 264 Subpart AA] shall be kept in the Operating Record.
 - II.N.6.a. The Operating Record shall be updated within thirty (30) days of a change in INL operations that potentially involve regulated process vents.
 - II.N.6.b. INL process vent data shall be reviewed at least annually for compliance with the IDAPA 58.01.05.008 [40 CFR §§ 264.1030 and .1035].
- II.N.7. The Permittee shall modify this permit as necessary to ensure compliance with Permit Condition II.N.3. whenever:
 - II.N.7.a. The Permittee identifies additional hazardous waste process vents; or
 - II.N.7.b. The Permittee determines that the SDS is subject to the requirements of IDAPA 58.01.05.008 [40 CFR Part 264 Subpart AA].

II.O. COMPLIANCE SCHEDULE

- II.O.1. TREATMENT PROCESS FOR REMOTE-HANDLED (RH) WASTE
 - II.O.1.a. The permittee shall prepare and submit to the Department a report of the known inventory of Remote-Handled Waste Disposition Project (RWDP) waste stored at the INL within six (6) months of the revision date of this permit. This information shall be updated annually, each November 15 via the Annual Update to the INL Site Treatment Plan (STP) and the Annual STP Report. This information will include the following information, at a minimum:
 - II.O.1.a.i By waste stream
 - Site Treatment Plan ID
 - Site Treatment Plan Waste Stream Name
 - Waste Type (low-level or transuranic)
 - Detailed Waste Description

II.O.1.a.ii By container:

- Generation Date
- Container Description
- Number of Containers
- Stored Volume (gallons)
- Stored Weight (pounds)
- Expected Generation (gallons/year)
- Generation Duration (years)

II.O.1.b. The Permittee shall take all necessary steps to maintain continuous RWDP operations at INTEC in compliance with the provisions of this permit until the waste backlog has been eliminated. Waste operations activities shall be those actions necessary to prepare, characterize, store, treat, and package RH mixed or hazardous waste for off-site disposal. Routine repair, replacement and maintenance shall not be deemed operations. A backlog treatment schedule for RWDP waste shall be provided as required through the STP.

II.O.1.c. If, upon continued technical evaluation of the RWDP waste stored at the INL, the Permittee identifies waste that cannot be treated within the existing facilities, the Permittee shall provide to the Department an alternatives analysis that specifies options for performing treatment of the waste within six (6) months of identification of such waste. If the alternatives analysis identifies that a Permit Modification Request (PMR) is necessary, the Permittee shall submit a PMR for treatment of the waste within 18 months of identification,

II.O.1.d. The Permittee shall submit to the Department every six (6) months, in conjunction with the STP quarterly meetings, a report summarizing RWDP operations over the previous six (6) months and the schedule for the following six (6) months.

II.O.1.e. If for any reason operations are interrupted for a period of greater than 6 months, prior to completing treatment of the RWDP backlog identified in the STP, the Department shall be notified in writing, provided a justification for the interruption, and given a schedule for resuming operations.

II.P. SODIUM-POTASSIUM ALLOY (NaK) OR NaK CONTAINING WASTE SPECIAL REQUIREMENTS

II.P.1. The Permittee shall not manage sodium-potassium alloy (NaK) or NaK containing waste outside of a container, the Sodium Distillation tank system or the Argon Repackaging Station (ARS) miscellaneous unit.

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 Book 1, Attachment 1 of this Permit.
- III.A.2. The Fluorinel 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 Book 1, 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 Book 1, Attachment 1a of this Permit.
- III.A.4. The Radioactive Waste Management Complex (RWMC) Building WMF-698 is an ARP storage enclosure and is a tension-membrane building, measuring 130 ft x 160 ft with a 20-ft-minimum interior clearance at the eaves. The building is further described in Book 3, Attachment 1.
- III.A.5. RWMC Building WMF-1617 (also known as ARP V) is a free-standing single large tension-membrane building which covers the exhumation footprint in Pit 9. This enclosure measures approximately 380 ft x 165 ft and 53 ft in height at the tallest point. The airlock enclosure is 88 ft. x 120 ft. The building is further described in Book 3A, Attachment 1.
- III.A.6. The Outside Storage Areas at WMF-1617, WMF-1619, WMF-1621, and WMF-698 are external storage areas to the buildings listed. An additional Outside Storage Area is located next to the bridge which connects to the Advanced Mixed Waste Treatment Project Area. These areas are further described in Book 3A, Attachment 1.
- III.A.7. RWMC Building WMF-1619 (also known as ARP VII) is a free standing single large tension membrane building. This enclosure measures approximately 135 ft x 243 ft x 45 ft. The airlock enclosure is 89 ft x 136 ft. The building is further described in Book 3A, Attachment 1.

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 Book 1, 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. Waste must meet the unit-specific waste acceptance criteria in Attachment 2 of this Permit.
- III.B.1.c. The maximum permitted capacity for container storage in the NWCF is 541,578 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
Room 428 – Crane Maintenance Area	4,400 gallons
CPP-1659 – Contaminated Equipment Maintenance Area	87,200 gallons

III.B.2. Container Storage Units in the FAST (Building CPP-666)

The Permittee may provide container storage in the FAST for those wastes identified for container storage in Book 1, 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 waste containing free liquids is authorized as follows:

III.B.2.b.(1) The permittee may store liquid bearing wastes at all container storage areas (except Room SB-8) in building CPP-666.

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 Building CPP-666 is 44,824 gallons, with the maximum waste volume for each room set as follows:

ROOM	MAXIMUM (S01) STORAGE VOLUME
CPP-666 – FDP Cell	37,300 gallons
CPP-666 – Room 301	4,304 gallons
CPP-666 – Room 114C	1,000 gallons
CPP-666 – Room 115	1,000 gallons
CPP-666 – Room 180	55 gallons
CPP-666 – Room B-4	55 gallons
CPP-666 – Room B-5	55 gallons
CPP-666 – Room SB-4 (liner cutting area)	525 gallons
CPP-666 – Room B-6 (liner cutting area)	525 gallons
CPP-666 – Room SB-8 (VES-FC-85A Collection Vessel)	5.0 gallons
Total Container Storage Volume for CPP-666:	44,824 gallons

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

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

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 Book 1, 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 store containers containing ignitable liquids in the heated cargo

containers within the CPP-1617 fenced area provided the cargo containers are equipped with explosion-proof fixtures. {IDAPA 58.01.05.008 [40 CFR § 264.17(a)]}.

III.B.3.e. Spacing between containers in the RMWSF shall be maintained such that the line-of-sight viewing angle for inspection is not less than 30 degrees, and there is adequate illumination. The Permittee shall use appropriate assistive devices (such as mirrors, magnifying lenses and light sources), as needed to improve the angle of vision and to assist examination.

III.B.4. Container Storage Units at the RWMC

The Permittee may provide container storage at the RWMC for those wastes identified for container storage in Book 3A, Attachment 1 of this Permit, and as follows:

III.B.4.a. Storage of mixed waste/debris is authorized as follows:

III.B.4.a.(1) The Permittee shall only store mixed 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.4.b. Waste must meet the unit-specific waste acceptance criteria in Book 3A, Attachment 2 of this Permit.

III.B.4.c. The maximum permitted storage capacity for mixed waste/debris at the RWMC is 362,227 gallons, with the maximum waste volume for each area set as follows:

AREA	MAXIMUM (S01) STORAGE VOLUME
WMF-698	108,515 gallons
WMF-1617 Rooms 101/102/103 (Service Bay Area) Room 104 (Equipment Airlock) Room 105 (DPS Room) Room 106 (Utility Area)	1,787 gallons 2,090 gallons 330 gallons 17,600 gallons
WMF-1619 Debris Repackage Project (DRP) Rooms 101/102/103 (Service Bay Area) Room 104 (Equipment Airlock) Room 105 (DPS Room) Room 106 (Utility Area)	10,988 gallons 9,200 gallons 330 gallons 12,446 gallons
WMF-1619 Sludge Repackage Project (SRP) Rooms 101/102/103 (Service Bay Area) Room 104 (Equipment Airlock) Room 105 (DPS Room) Room 106 (Utility Area)	1,787 gallons 2,090 gallons 330 gallons 17,600 gallons
Outside Storage Areas treated/solid waste only: Near WMF-1617 3 Trailers @ 16 boxes at 90ft ³ /box (=10,772 gal/trailer) 4 Cargo Containers @ 9,574 gal each 16 boxes @ 90 ft ³ Near WMF-698 2 Trailers @ 16 boxes at 90ft ³ /box (=10,772 gal/trailer) Near Bridge 1 Trailer @ 16 boxes at 90ft ³ /box (=10,772 gal/trailer)	32,316 gallons 38,296 gallons 10,772 gallons 21,544 gallons 10,772 gallons

AREA	MAXIMUM (S01) STORAGE VOLUME
Near WMF-1619 (South-East of WMF-1619) 3 Trailers @ 16 boxes at 90ft ³ /box (=10,772 gal/trailer) 1 Cargo Container @ 9,574 gal	32,316 gallons 9,574 gallons
Near WMF-1619 (North of WMF-1619) 16 boxes @ 90 ft ³ /box	10,772 gallons
Near WMF-1621 (Trailer Storage Area) 1 Trailer @ 16 boxes at 90ft ³ /box (=10,772 gal/trailers)	10,772 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 Book 1, 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 Book 1, 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-NCD-139, and TK-NCD-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, sludge (if any) removed, 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, any sludge removed, 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-NCD-139	127 gallons	1,100 gallons per day
TK-NCD-137	270 gallons	2,200 gallons per day

III.B.6. **SIZING AND REPACKAGING TREATMENT IN CPP-659 and in CPP-666 FDP Cell**

The Permittee may conduct sizing and repackaging activities in CPP-659 and CPP-666 FDP Cell for those wastes identified for such treatment in Book 1, Attachment 1 of this Permit, and as follows:

- III.B.6.a. The Permittee may conduct sizing and repackaging activities on hazardous/mixed debris, in support of off-Site shipment or subsequent on-Site management, as specified in this permit.
- III.B.6.b. The Permittee shall conduct all sizing and repackaging activities in CPP-659, Rooms 216, 306, 308, 309, 323, 418, 421, 422, and 428 and in CPP-666 FDP Cell.

TREATMENT METHOD	MAXIMUM (T04) TREATMENT VOLUME
Sizing Sizing may include cutting, crushing, bending, folding, and other similar activities. Examples of equipment used to size debris waste includes: conventional rotating or reciprocating saw, die – punch, etc.	520 gallons/day per Room/FDP Cell

TREATMENT METHOD	MAXIMUM (T04) TREATMENT VOLUME
Repackaging Repackaging includes opening waste containers, removing the waste, and subsequently placing the waste into new containers, as necessary	520 gallons/day per Room/FDP Cell

III.B.7. COMPACTION TREATMENT IN CPP-659 and in CPP-666 FDP Cell

The Permittee may conduct compaction treatment in CPP-659 and CPP-666 FDP Cell for those wastes identified for such treatment in Book 1, Attachment 1 of this Permit, and as follows:

- III.B.7.a. The Permittee may conduct waste compaction in support of off-Site shipment or subsequent on-Site management of hazardous/mixed debris as specified in this permit.
- III.B.7.b. The Permittee shall conduct waste compaction in CPP-659, Rooms 216, 306, 308, 309, 323, 418, 421, 422, 428, and in CPP-666 FDP Cell

TREATMENT METHOD	MAXIMUM (T04) TREATMENT VOLUME
Compaction Compaction may include compressing, crushing, etc. the waste, as necessary so that it may be placed/stored in appropriate waste storage/shipping containers	520 gallons/day per Room/FDP Cell

III.B.8. ABSORBENT ADDITION TREATMENT IN CPP-659 AND IN CPP-666 FDP CELL

The Permittee may conduct absorbent addition treatment in CPP-659 and CPP-666 FDP Cell for those wastes identified for such treatment in Book 1, Attachment 1 of this Permit, and as follows:

- III.B.8.a. The Permittee may conduct absorbent addition activities in support of off-Site shipment or subsequent on-Site management of hazardous and mixed waste as specified in this permit.
- III.B.8.b. Absorbent addition activities will be performed in CPP-659, Rooms 308, 309, and 418, and in the CPP-666 FDP Cell.

TREATMENT METHOD	MAXIMUM TREATMENT VOLUME – T04
Absorbent Addition Absorbent addition consists of adding appropriate absorbent material to hazardous/mixed waste, so that no free liquids are present in the treated waste form.	520 gallons/day per Room/FDP Cell

III.B.9. MACROENCAPSULATION AT RMWSF (CPP-1617) and CPP-659 Room 428 (Crane Maintenance Area)

III.B.9.a. The Permittee may conduct macroencapsulation activities with subsequent on-Site management of that hazardous and/or mixed waste in support of off-Site shipment of that waste as specified in this permit.

III.B.9.b. Macroencapsulation activities will be performed in RMWSF and in CPP-659 Room 428.

TREATMENT METHOD	MAXIMUM TREATMENT VOLUME – T04
<u>CPP-1617 Commercial Macroencapsulation Process</u> Macroencapsulation will be performed using commercially available macroencapsulation units that have been pre-approved by the proposed disposal facility.	9,600 gallons/day total volume treated by macroencapsulation at the CPP-1617 facility
<u>CPP-659 Room 428 Commercial Macroencapsulation Process</u> Macroencapsulation will be performed using commercially available macroencapsulation units that have been preapproved by the proposed disposal facility	9,600 gallons/day total volume

III.B.10. TREATMENT OF WASTE IN CONTAINER STORAGE AREAS

III.B.10.a The Permittee shall actively manage waste undergoing treatment outside of its container (i.e., sorting, sizing, compacting, and repackaging mixed waste debris, neutralization, and sodium deactivation) in the FDP Cell, anytime waste is not containerized, by ensuring that all the waste is containerized by the end of a shift, or end of operating day in the case where there are multiple shifts in a 24-hour period.

III.B.10.a.(1) If the Permittee cannot comply with Permit Condition III.B.10.a., then the Permittee shall open a RCRA remedial, and perform inspections on the waste every 2 hours.

III.B.10.b. The Permittee shall actively manage waste undergoing treatment outside of it container (i.e., sorting, sizing, compacting, and repackaging mixed waste debris, neutralization, and sodium deactivation) in CPP-659 Room 308, anytime waste is not containerized, by ensuring that all the waste is containerized by the end of a shift, or end of operating day in the case where there are multiple shifts in a 24-hour period.

III.B.10.b.(1) If the Permittee cannot comply with Permit Condition III.B.10.b., then the Permittee shall manage the waste as a waste pile in accordance with Module IV.

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; transfer the container to an overpack container; 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, except when adding or removing waste, 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, III.B.6, III.B.7, III.B.8, and III.B.9 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 §§ 264.17 and 264.173] and Book 1, 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 §§ 267.17 and 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] 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, III.B.6, III.B.7, III.B.8., and III.B.9 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 Book 1, 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 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)] and Book 1, Attachment 1a of this Permit.

III.H.4. If containers with free liquid are stored within RWMC buildings WMF-1617, WMF-1619 and WMF-698, then secondary containment will be provided through the use of secondary containment pans. Secondary containment pans will have enough containment capacity to contain either 10% of the volume of containers or 100% of the largest container, which ever is greater, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.175(b)(3)] and Book 3A, Attachment 1 of this Permit.

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.

MODULE IV – INTEC 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 Book 1, 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 Book 1, 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 209 cubic meters, with the maximum waste volume for each room set as follows:

ROOM	MAXIMUM (S03) STORAGE VOLUME
Room 206 – Adsorber Cell	43 cubic meters
Room 207 – Off-Gas Cleanup Cell	3 cubic meters
Room 214 – Calciner Cell	8 cubic meters
Room 215 – Blend and Hold Cell	3 cubic meters
Room 216 - Filter Cell/Valve Cubicle	39 cubic meters
Room 308 - Remote Decon Cell	22 cubic meters
Room 309 - Filter Handling Cell	18 cubic meters
Room 322 – Off-Gas Blower Cell	5 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
Room 418 – Steam Spray Booth	30 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.1.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 Book 1, 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 Book 1, 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 Book 1, 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 Book 1, Attachment 4 of this Permit.

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 Book 1, Attachment 8, and Permit Condition II.K. of this Permit.

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MODULE V – INTEC 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 and CPP-666:

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 Book 1, 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 Book 1, 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 Book 1, 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 Book 1, 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 Book 1, 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.

The HFLS may also be used for the radiological decontamination (pre-treatment) of HEPA filters to meet off-site treatment facility Waste Acceptance Criteria. When performing decontamination operations, the number/length of leaching and rinsing cycles may be reduced, and drying may or may not be performed. Steam may also be used to pre-dry the filters by driving off most of the residual liquid.

V.A.5. The FDP Cell Slab Tank

The FDP Cell Slab Tank is located at the base of the FDP Cell in CPP-666. The Slab Tank is a critically safe low volume tank that is available to store liquids within the FDP Cell.

V.A.6. The FDP Area Sodium Distillation System (SDS)

The FDP Area SDS is located in CPP-666, Room SB-8 at the -31' level. The SDS consists of 2 tanks: Distillation Vessel (VES-FC-101) and Collection Vessel (VES-FC-85A). The SDS treats sodium contaminated debris waste.

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 NWCF tank storage in Book 1, 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 Book 1, 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 Storage at FAST/FDP Area (SDS)

The Permittee may provide tank storage in the FAST Slab Tank (VES-FC-184) and in the FDP Area, Sodium Distillation System (SDS) located in Room SB-8, which includes tanks VES-FC-101 and VES-FC-85A, for those wastes identified for tank storage in Book 1, Attachment 1 of this Permit, and as follows:

V.B.2.a. Storage of mixed waste is authorized.

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

V.B.2.c. The FAST Slab Tank dimensions are 8 feet by 5 feet by 0.33 feet and has a maximum volume of sixty five gallons.

V.B.2.d. The SDS tank dimensions are as follows:

V.B.2.d.1. VES-FC-101 (distillation vessel) – 71.25 inches long with an outer diameter of 12.75 inches and inner diameter of 12 inches and has a maximum capacity of 35 gallons

V.B.2.d.2. VES-FC-85A (collection vessel) – 15 inches long with an outer diameter of 10.75 inches and an inner diameter of 10 inches and has a maximum capacity of 5 gallons

V.B.3. Tank Treatment Units in the NWCF

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

- V.B.3.a. Treatment of hazardous and mixed waste is authorized.
- V.B.3.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.3.c. Waste must meet the unit-specific waste acceptance criteria in Book 1, Attachment 2 of this Permit.
- V.B.3.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.3.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.B.4. Tank treatment in the FAST Slab Tank is not authorized.

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 Book 1, 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 Book 2, Appendix 2, 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 a 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 Book 1, 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 Book 1, 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 Book 1, 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 Book 1, Attachment 1 of this Permit. The Permittee shall then:

V.F.1.a. Immediately stop the flow of hazardous or mixed 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 Book 1, 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 Book 1, 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 Book 1, 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 Book 1, 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 Book 1, 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 Book 1, 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 Book 1, 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 a qualified 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 kept on file in the Operating Record, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(f)], , and retained in accordance with Permit Conditions I.Z. and II.J., and Book 1, Attachment 1 of this Permit.

- V.F.4. In addition to the requirements of Permit Condition V.F. above, the following requirements apply to the FDP Cell Slab Tank only:
- V.F.4.a. Detection of liquids in the FDP Cell sump shall be reported in accordance with Permit Condition I.T.
- V.F.4.b. The operator shall determine if the source of sump liquids is a leak in Slab Tank.
- V.F.4.b.i. If the source of liquids is determined to be non-waste (e.g., steam leak, pump priming water, etc.) then operations of the slab tank may continue provided the level of liquids remains less than the sixty-five gallon capacity of the tank.
- V.F.4.b.ii. If the source of liquids either is a leak in slab tank or can not be determined, the Permittee shall respond in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196]. Liquids shall be containerized or removed from the FDP Cell.
- 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 Book 1, 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 Book 1, 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 Book 1, Attachment 8, and Permit Condition II.K. of this Permit.

MODULE VI - MISCELLANEOUS UNIT TREATMENT

VI.A. PERMITTED MISCELLANEOUS/OTHER 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, in the CPP-666 FDP Cell, CPP-666 Room SB-8, and at the RMWSF. Additionally, the Permittee may treat hazardous and mixed debris, as specified in Permit Condition VI.B. of this Permit in the WMF-1617 Retrieval Area, Drum Packaging Stations, and Drum Compactor at the RWMC and the WMF-1619 Retrieval Area, Drum Packaging Stations, Decon Tent, and Service Bay:

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 Book 1, Attachment 1 of the Permit, and as follows:

VI.B.1.a.

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 Book 1, 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 Book 1, 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.B.3. Miscellaneous/Other Treatment Unit (T04) for Deactivation of Sodium at CPP-659 Room 308 and CPP-666 FDP Cell within the Argon Repackaging Station (ARS)
 - VI.B.3.a. Treatment of hazardous and mixed debris is authorized.
 - VI.B.3.b. The Permittee may only treat hazardous waste that is exempt from IDAPA58.01.05.008 (40 CFR § 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).
 - VI.B.3.c. Waste must meet the unit-specific waste acceptance criteria in Book 1, Attachment 2 of this Permit.
 - VI.B.3.d. Deactivation of sodium shall consist of reaction with water in an immersion bath or by misting/wetting of the waste surface within the ARS, or exposure to air in CPP-659 Room 308 and the FDP Cell.
 - VI.B.3.e. The Permittee may perform deactivation of sodium in the following units at the following maximum capacities:

UNITS	MAXIMUM (T04) VOLUME OF HWMA/RCRA TREATMENT MEDIA
FDP Cell	6.2 gallons (50 pounds) per day total
CPP-659 Room 308	6.2 gallons (50 pounds) per day total

- VI.B.3.f. The Permittee shall actively manage waste undergoing sodium deactivation in the FDP Cell or in the FDP ARS, anytime waste is not containerized; by ensuring that all the waste is containerized by the end of a shift, or end of operating day in the case where there are multiple shifts in a 24-hour period.
- VI.B.3.f.(1) If the Permittee cannot comply with Permit Condition VI.B.3.f., then the Permittee shall open a RCRA remedial and perform inspections on the waste every 2 hours.
- VI.B.3.g. The Permittee shall actively manage waste undergoing sodium deactivation in the CPP-659 Room 308 or the CPP-659 Room 308 ARS, anytime the waste is not containerized, by ensuring that all the waste is containerized by the end of a shift, or end of operating day in the case where there are multiple shifts in a 24-hour period.
- VI.B.3.g.(1) If the Permittee cannot comply with Permit Condition VI.B.3.g., then the Permittee shall manage the waste as a waste pile in accordance with Module IV.
- VI.B.4. Miscellaneous/Other Treatment Unit (T04) for Distillation of Sodium at CPP-666 FDP Area, Room SB-8
- VI.B.4.a. Treatment of hazardous and mixed debris is authorized.
- VI.B.4.b. The Permittee may only treat hazardous waste that is exempt from IDAPA58.01.05.008 (40 CFR § 264 Subpart CC), as provided in IDAPA 58.01.05.008 (40 CFR § 264.1082).
- VI.B.4.c. Waste must meet the unit-specific waste acceptance criteria in Book 1, Attachment 2 of this Permit.
- VI.B.4.d. Distillation of sodium shall be conducted in the Sodium Distillation System (SDS) which consists of the: Distillation Vessel (VES-FC-101) and Collection Vessel (VES-FC-85A).
- VI.B.4.e. The Permittee may perform distillation of sodium in the SDS unit in the following vessels at the following maximum capacities:

UNIT	MAXIMUM (T04) VOLUME OF HWMA/RCRA TREATMENT MEDIA
SDS: VES-FC-101 VES-FC-85A	6.2 gallons (50 pounds) per day total

- VI.B.4.f. The Distillation Vessel will be evacuated until a vacuum of 10Torr is achieved before the distillation furnace is turned on.
- VI.B.4.g. The operating vacuum pressure for distillation treatment is 1 mTorr to 10 Torr.

- VI.B.4.h. The operating temperature for distillation treatment is 500 °F to 1200 °F.
- VI.B.4.i. The SDS will be maintained/operated under an inert atmosphere when waste is present.

VI.B.5. MACROENCAPSULATION at the RMWSF (CPP-1617) (T04)

Subject to the terms of this Permit, the Permittee may treat mixed waste in containers through macroencapsulation (either commercial or custom process) at the RMWSF, CPP-1617 building and fenced area.

TREATMENT METHODS	MAXIMUM T04 TREATMENT VOLUME
Building CPP-1617 and Fenced Area Macroencapsulation (custom)	9,600 gallons/day total volume treated by macroencapsulation at the CPP-1617 facility

- VI.B.5.a. The treatment process, macroencapsulation, consists of equipment placed within the RMWSF to provide for container handling and contamination control to allow for the macroencapsulation of waste.
- VI.B.5.b. The treatment of mixed waste through macroencapsulation (Process Code T04), is authorized with a throughput rate not to exceed 9,600 gallons per day, or 312 tons/year in the RMWSF, CPP-1617.
- VI.B.5.c. The Permittee shall document in the Operating Record the amount of treatment via macroencapsulation performed each day when such treatment occurs and the total amount of treatment via macroencapsulation performed during the twelve (12) month period previous to that day.
- VI.B.5.d. Wastes acceptable for the treatment process are defined as wastes that have been characterized as having the EPA HWNs defined in the current Part A Permit Application in Attachment 1 of this Permit.
- VI.B.5.e. During the treatment process, the Permittee shall not place incompatible wastes, or wastes and materials that are incompatible, in the same container, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.177].
- VI.B.5.f. The Permittee shall inspect the macroencapsulation activity in accordance with Permit Condition II.E and Attachment 4 of this Permit.
- VI.B.5.g. The Permittee shall document inspection and operation of the macroencapsulation process in the Operating Record, in accordance with Permit Conditions I.Y and II.E.

VI.B.6. MISCELLANEOUS TREATMENT at RWMC WMF-1617 (X02 and X99) and WMF-1619 (X02 and X99)

VI.B.6.a. MISCELLANEOUS TREATMENT. The Permittee may conduct treatment activities on mixed waste/debris, in support of off-Site shipment or subsequent on-Site management, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601], and as specified in Book 3A, Attachment 1, Section D of this Permit.

VI.B.6.a.1. The Permittee shall conduct all miscellaneous treatment activities in WMF-1617 Retrieval Area and Room 105 (Drum Packaging Stations) and Drum Compactor Area (Room 103) and in WMF-1619 as follows:

VI.B.6.a.1.a. X99 - Miscellaneous Treatment units at WMF-1617 consist of the following: Retrieval Area, 4 Drum Packaging Stations, and Drum Compactor. Additionally, X99 – Miscellaneous Treatment units at WMF-1619 DRP and SRP consists of the following: Retrieval Area (DRP - Box Transfer Pan area or SRP - Sorting Table), 4 Drum Packaging Stations, and the Service Bay Area (Room 103)

Miscellaneous treatment in WMF-1617 includes any/all of the following, opening waste containers, venting containers, staging waste in the retrieval area associated with waste processing activities, removing waste from the container, staging empty drums and ancillaries, wiping sludge from drums, segregating/sorting waste, opening/crushing inner containers with liquid content, absorbent addition for liquids, segregation/treatment of WIPP prohibited items, sizing waste to fit into containers, and subsequently placing the waste into new containers.

The WMF-1619 DRP Retrieval Area processing includes the following activities: staging waste in the retrieval area associated with waste processing activities, opening waste containers, removing the container from around the debris waste, segregating/sorting the loose debris into separate waste boxes, opening/crushing inner containers with liquid content, absorbent addition for liquids with the absorbed material being placed into the boxes of repackaged loose debris, segregation/treatment of WIPP prohibited items, staging empty containers, compacting/crushing empty containers with the excavator, and sizing waste to fit into containers. In addition, the large debris items/large boxes may be transferred into Room 103 for manual radiological decontamination. The decontamination process will include simple manual decontamination by operations personnel in PPE using hand spraying equipment, wiping by hand, brushes, carbon dioxide decon, etc. Absorbent addition to any liquid decontamination wastes will also be performed.

Miscellaneous treatment in WMF-1619 SRP includes any/all of the following, opening waste containers, venting containers, staging waste in the retrieval area associated with waste processing activities, removing waste from the container, staging empty drums and ancillaries, wiping sludge from drums, segregating/sorting waste, opening/crushing inner containers with liquid content, absorbent addition for liquids, segregation/treatment of WIPP prohibited items, sizing waste to fit into containers, and subsequently placing the waste into new containers.

TREATMENT METHODS	MAXIMUM X99 TREATMENT VOLUME
WMF 1617 Retrieval Area includes: Sorting Table Treatment @ 50 drums treated/day (in secondary containment)	2,750 gallons/day
WMF-1617 Room 105 – 4 Drum Packaging Station (DPS) @ 100 drums/day	5,500 gallons/day
WMF-1617 Room 103 – Drum Compactor (absorbent addition)	10 gallons/day
WMF-1619 DRP Retrieval Area includes: Box Transfer Pan Area treatment @ 2 large boxes treated per day Room 103 – Sorting Area treatment includes 2 large boxes treated per day	2,800 gallons/day 2,800 gallons/day
WMF-1619 – DRP Room 105 – 4 Drum Packaging Stations @ 8 drums/day total treated	440 gallons/day
WMF-1619 DRP Absorbent Addition in the following areas: Service Bay (Room 103) @ 50 gallons/day Retrieval Area - Box Transfer Pan @ 50 gallons/day	50 gallons/day 50 gallons/day
WMF-1619 SRP includes: Retrieval Area Sorting Table treatment @ 50 drums/day Room 105 – DPS @ 100 drums/day Room 103 – Drum compactor (absorbent addition)	2,750 gallons/day 5,500 gallons/day 10 gallons/day

VI.B.6.a.1.b. X02 – Miscellaneous Mechanical Treatment units at WMF-1617 and WMF-1619 consists of the Drum Compactor.

Miscellaneous mechanical treatment in WMF-1617 and WMF-1619 includes compaction/crushing of drum carcasses and/or liner.

TREATMENT METHODS	MAXIMUM X02 TREATMENT VOLUME
WMF-1617, Room 103 Drum Compactor @ 100 drums/day	5,500 gallons/day
WMF – 1619 SRP , Room 103 Drum compactor (crushing) @100 drums/day	5,500 gallons/day

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.C.1. The Permittee shall not perform treatment of waste which AK, RTR, or assay indicate as containing pyrophoric properties at the RWMC. For the purposes of this condition, pyrophoric waste shall be defined as wastes (including mixtures and solutions, liquid or solid) which, even in small quantities, ignite within five minutes of coming in contact with air. These wastes are the most likely to spontaneously combust and are considered to have pyrophoric properties.

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 INTEC 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 Book 2, Appendix 1, of this Permit.

VI.E.3. The secondary containment for the Miscellaneous Treatments Units at the RWMC consists of secondary containment pans compatible with the waste that is being treated. Detailed information on the secondary containment systems are provided in Book 3A, Attachment 1, Section D, 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 58.01.05.005 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. 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.

In addition to complying with the requirements of Permit Condition I.T. of this Permit, within thirty (30) calendar days of detecting a release to the environment from a miscellaneous treatment unit, the Permittee shall report the following to the Director in accordance with Permit Condition I.Y. 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.) at INTEC and miscellaneous treatment within WMF-1617 and WMF-1619.
- 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 a qualified 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 kept on file in the Operating Record, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.196(f)], 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 shall be removed from the containment pans to meet the de minimus criteria defined on FRM-1809 at the end of each operational day. 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 clean out of the containment pans;

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

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

VI.H.2.d. Approximate size and amount of the release.

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 thirty (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 - MISCELLANEOUS UNIT STORAGE

VII.A. PERMITTED MISCELLANEOUS STORAGE UNITS

Subject to the terms of this Permit, the Permittee may stage and store mixed waste and debris, as specified in Permit Condition VII.B. of this Permit, in the miscellaneous drum/tray storage units in the WMF-1617 and WMF-1619 Retrieval Areas as described in Book 3A, Attachment 1 of this Permit.

VII.B. PERMITTED/PROHIBITED WASTE IN THE MISCELLANEOUS STORAGE UNITS

VII.B.1. The Permittee may provide miscellaneous staging and storage in the miscellaneous storage units only for those wastes identified for staging and storage in Book 3A, Attachment 1 of the Permit, and as follows:

VII.B.1.a. Storage and staging of mixed waste and/or debris is authorized.

VII.B.1.b. The Permittee may only store mixed 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).

VII.B.1.c. Waste must meet the unit-specific waste acceptance criteria in Book 3A, Attachment 2 of this Permit.

VII.B.1.d. The maximum permitted storage/staging capacity for mixed waste/debris is as follows:

UNIT	MAXIMUM (X99) STORAGE VOLUME
WMF-1617 Container/Tray Staging/Storage Units	17,730 gallons
WMF-1619 DRP Retrieval Area Container/Tray Staging/Storage Areas	17,730 gallons
WMF-1619 SRP Retrieval Area Container/Tray Staging/Storage Areas	17,730 gallons

VII.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 Book 3A, Attachments 1 and 6 of this Permit.

VII.D. INCOMPATIBLE WASTE

VII.D.1. The Permittee shall not place incompatible wastes or materials that are incompatible in the same storage container, in accordance with IDAPA 58.01.05.008 [40 CFR §§ 264.177(a) and 264.601] and Book 3A, Attachments 1 and 6 of this Permit.

- VII.D.2. The Permittee shall not place waste or materials in an unwashed 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 Book 3A, Attachments 1 and 6 of this Permit.
- VII.D.3. The Permittee shall not store 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 §§ 264.177(c) and 264.601] and Book 3, Attachments 1 and 6 of this Permit.
- VII.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 Book 3, Attachments 1 and 6 of this Permit.

VII.E. SECONDARY CONTAINMENT SYSTEMS

- VII.E.1. The Permittee shall ensure that the secondary containment systems for the WMF-1617 and WMF-1619 drum/tray miscellaneous storage units are designed in accordance with IDAPA 58.01.05.008 [40 CFR §§ 264.175(b) and 264.601] and Book 3A, Attachment 1 of this Permit.
 - VII.E.1.a. The base underlying the containers/trays must be free of cracks or gaps and be sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.
 - VII.E.1.b. The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.
 - VII.E.1.c. The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.

As detailed in Attachment 1, for waste boxes to be stored in Room 104 or the retrieval areas within WMF-1617 and WMF-1619 that have been verified through real time radiography to contain free liquids in the box that are less than 10% of the box volume, storage is allowed on 9' by 6' by 0'6" box transfer pans, 9' by 9' by 0'6" containment pans, or in the processing area secondary containment.
 - VII.E.1.d. Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in Permit Condition VII.E.1.c. to contain any run-on which might enter the system.
 - VII.E.1.e. Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

VII.E.2. The secondary containment for the Miscellaneous Storage Units at the RWMC consists of secondary containment pans compatible with the waste that is being treated. Detailed information on the secondary containment systems are provided in Book 3A, Attachment 1, Section D, of this Permit.

VII.F. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect the permitted miscellaneous storage units weekly in accordance with IDAPA 58.01.05.008 [40 CFR § 264.174]. In addition, consistent with IDAPA 58.01.05.008 [40 CFR § 264.15(b)(4)], the units will be inspected every operational day when waste is being moved into or out of the storage units as defined by the Inspection Schedules contained in Book 3A Attachment 4 of this Permit, to assure compliance with the environmental performance standards of IDAPA 58.01.05.008 [40 CFR § 264.601].

VII.G. RESPONSE TO LEAKS OR SPILLS

VII.G.1. The Permittee shall immediately remove a miscellaneous storage unit from service if there is a leak or spill from the 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 264.196] and Book 3A Attachment 1 of this Permit. The Permittee shall then:

VII.G.1.a. Immediately stop the flow of hazardous waste into the storage 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 264.196] and Book 3A Attachment 1 of this Permit.

VII.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 storage system, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601 and 264.196] and Book 3A Attachment 1 of this Permit.

VII.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 264.196] and Book 3A Attachment 1 of this Permit.

VII.G.1.d. If the collected material is a HWMA/RCRA-regulated material, manage it in accordance with all applicable requirements of IDAPA 58.01.05.005 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.

VII.G.1.e. 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 Book 3A Attachment 1 of this Permit.

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

- VII.G.1.f. The Permittee shall follow Permit Conditions VII.G.1.b., VII.G.1.c., and VII.G.1.d. of this Permit for de minimis spills into the secondary containment system and miscellaneous storage units within WMF-1617 and WMF-1619.
- VII.G.2. The Permittee shall close the miscellaneous storage units, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Book 3A Attachment 8 of this Permit, unless he satisfies the following requirements:
 - VII.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 storage system to service, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Book 3A Attachment 1 of this Permit.
 - VII.G.2.b. For a release caused by a leak from a miscellaneous storage unit to a secondary containment system, the Permittee shall repair the miscellaneous storage unit prior to returning it to service, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.601] and Book 3A Attachment 1 of this Permit.
 - VII.G.2.c. If the Permittee replaces a component of the miscellaneous storage 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].
- VII.G.3. If the Permittee has repaired a miscellaneous storage unit in accordance with Permit Condition VII.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 storage unit must not be returned to service until the Permittee obtains a certification by an qualified 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 storage 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 Book 3A Attachment 1 of this Permit.
- VII.H. RECORD KEEPING AND REPORTING
 - VII.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.
 - VII.H.2. Releases from miscellaneous storage units that are totally contained within a secondary containment system shall be removed from the containment pans to meet the de minimus criteria defined on FRM-1809 at the end of each operational day. 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:

- VII.H.2.a. Date and time of the clean out of the containment pans;
 - VII.H.2.b. Miscellaneous storage unit identification;
 - VII.H.2.c. Name and title of the employee documenting the release; and
 - VII.H.2.d. Approximate size and amount of the release.
- VII.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 Book 3A Attachment 1 of this Permit.
- VII.H.4. In addition to complying with the requirements of Permit Condition I.T. of this Permit, within thirty (30) calendar days of detecting a release to the environment from a miscellaneous storage unit, the Permittee shall report the following to the Director in accordance with Permit Condition I.Y. of this Permit:
- VII.H.4.a. Likely route of migration of the release;
 - VII.H.4.b. Characteristics of the surrounding soil, including soil composition, geology, and hydrogeology, taking into account possible climatic effect on the soil characteristics;
 - VII.H.4.c. Results of any monitoring, sampling, or air dispersion modeling conducted in connection with the release;
 - VII.H.4.d. Proximity of downgradient drinking water, surface water, and populated areas; and
 - VII.H.4.e. Description of response action taken or planned.
- VII.I. CLOSURE

The Permittee shall close the permitted miscellaneous storage units, in accordance with IDAPA 58.01.05.008 [40 CFR Subpart G and 40 CFR § 264.603], the procedures set forth in Book 3A Attachment 8, and Permit Condition II.K. of this Permit.

MODULE VIII - CORRECTIVE ACTION

VIII.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 VIII.A.1 to VIII.A.3.

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

VIII.B. STANDARD CONDITIONS

- VIII.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.
- VIII.B.2. Failure to submit the information required by the Permit Conditions identified within Module VIII 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.

- VIII.B.3. All plans, reports, notifications, and other submissions to the Director, as required by the Permit Conditions identified within Module VIII of this Permit, shall be signed and certified in accordance with Permit Condition I.W. of this Permit.
- VIII.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 VIII of this Permit, to the following addresses:
- 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
- VIII.B.5. All plans and schedules, as required by the Permit Conditions in Module VIII of this Permit, upon written approval from the Director, shall be incorporated into Module VIII of this Permit in accordance with Permit Condition VIII.I. of this Permit. Any noncompliance with such approved plans and schedules shall be deemed noncompliance with this Permit.
- VIII.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 VIII of this Permit, upon written approval from the Director, in accordance with Permit Condition VIII.I. of this Permit.
- VIII.B.7. If the Director determines that further actions beyond those provided by the permit conditions within Module VIII of this Permit, or changes to permit conditions stated herein, are warranted, the Director shall modify the permit condition(s) in Module VIII in accordance with Permit Condition VIII.I. of this Permit.
- VIII.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 VIII 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.
- VIII.B.9. Should the FFACO be vacated, investigations completed under the FFACO/CERCLA remedial process may be utilized in complying with Module VIII 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.

VIII.B.10. To the extent that work required by Module VIII 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.

VIII.B.11. To the extent that work required by Module VIII 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.

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

VIII.C.1. The Permittee shall notify the Director in writing, by certified mail, express mail, or hand delivery, of any newly identified SWMU(s). 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.

VIII.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.

VIII.C.3. The Solid Waste Management Unit Assessment Plan shall include the information or the means by which the following information shall be obtained:

VIII.C.3.a. Information concerning past and present operations at the unit(s); and

VIII.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 Unit 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.

VIII.C.4. The Permittee shall receive written approval from the Director for the Solid Waste Management Unit Assessment Plan; or

- VIII.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
- VIII.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.
- VIII.C.7. The Solid Waste Management Unit Assessment Plan, as approved by the Director, as specified in Permit Conditions VIII.C.4., VIII.C.5., or VIII.C.6. of this Permit, shall be incorporated within Module VIII of this Permit in accordance with Permit Condition VIII.I. of this Permit. The Permittee shall be notified in writing of the approval of the permit modification.
- VIII.C.8. The Permittee shall implement the approved Solid Waste Management Unit Assessment Plan within thirty (30) calendar days after receipt of written notice of the permit modification approval specified in Permit Condition VIII.C.7. of this Permit.
- VIII.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 VIII.C.8. of this Permit.
- VIII.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:
 - VIII.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;
 - VIII.C.10.b. The type and function of the unit, including general dimensions and a structural description;
 - VIII.C.10.c. The period during which the unit was operated; and
 - VIII.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.
- VIII.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 VIII.D. of this Permit.

VIII.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 VIII.D. of this Permit.

VIII.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.

- VIII.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.
- VIII.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.
- VIII.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).
- VIII.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 VIII.D.1.b. of this Permit, according to the SWMU's potential for imminent threat to human health and the environment.
- VIII.D.1.d. Based on the classification of the SWMU (s), pursuant to Permit Condition VIII.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 for imminent threat to human health and the environment.
- VIII.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 VIII.I.1. and VIII.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 VIII.D.1.c. and VIII.D.1.d. of this Permit.

- VIII.D.1.f. The Permittee shall prepare and submit the results of the RCRA Facility Investigation - Phase I in the Task I Report.
- VIII.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.
- VIII.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 VIII.D.1.a. of this Permit.
- VIII.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.
- VIII.D.5. The RFI compliance schedules specified in Tables 4 and 5 of this Permit may be modified in accordance with Permit Condition VIII.I. of this Permit.
- VIII.E. INTERIM MEASURES
 - VIII.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.
 - VIII.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 VIII.E.3. of this Permit. The Permittee shall comply with the specified Interim Measures Plan alternative (Permit Condition VIII.E.3.a. or VIII.E.3.b. of this Permit) designated in the written notification.
 - VIII.E.3. The Permittee shall perform the requirements of the Interim Measures Plan in accordance with the alternative specified in either Permit Condition VIII.E.3.a. or VIII.E.3.b. of this Permit.
 - VIII.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 VIII.E.2. of this Permit. or;
 - VIII.E.3.b. Within thirty (30) calendar days after receipt of written notification requiring the Interim Measures Plan as specified in Permit Condition VIII.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.
 - VIII.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:

- VIII.E.4.a. Time required to develop and implement a final remedy;
- VIII.E.4.b. Actual and potential exposure of human and environmental receptors;
- VIII.E.4.c. Actual and potential contamination of drinking water supplies and sensitive ecosystems;
- VIII.E.4.d. The potential for further degradation of the medium absent of interim measures;
- VIII.E.4.e. Presence of hazardous waste that may pose a threat of release;
- VIII.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;
- VIII.E.4.g. Weather conditions that may affect the current levels of contamination;
- VIII.E.4.h. Risks of fire, explosion, or accident; and
- VIII.E.4.i. Other situations that may pose threats to human health and/or the environment.
- VIII.E.5. The Interim Measures Plan shall be incorporated into this Permit in accordance with Permit Condition VIII.H. of this Permit.
- VIII.F. DETERMINATION OF NO FURTHER ACTION
 - VIII.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.
 - VIII.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.
 - VIII.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.
 - VIII.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.

VIII.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 VIII.I. to rescind the determination made in accordance with Permit Condition VIII.F.1.

VIII.G. CORRECTIVE MEASURES STUDY AND IMPLEMENTATION

VIII.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 V) of this Permit.

VIII.G.2. Upon the Director's approval of the Corrective Measures Study, pursuant to Permit Condition VIII.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 V.A. of this Permit.

VIII.G.3. Upon the Director's approval of the Corrective Measures Implementation Program Plan, pursuant to Permit Condition VIII.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 V of this Permit [the corrective measures design (Task V.B.) and construction of the corrective measures (Task V.C.)].

VIII.G.4. The Permittee shall conduct the Corrective Measures Study and prepare the Corrective Measures Implementation Program Plan, as specified in Permit Conditions VIII.G.1. and VIII.G.2. of this Permit, in accordance with the schedule specified in Table 6 of this Permit.

VIII.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 VIII.G.3. of this Permit.

VIII.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.

VIII.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 of this Permit, by certified mail, express mail, or hand delivery, to the Director for approval.

VIII.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].

VIII.G.6. The Permittee shall conduct the Corrective Measures Implementation, as specified in Permit Condition VIII.G.3. of this Permit, in accordance with Permit Condition VIII.G.5. of this Permit.

VIII.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 VIII.I. of this Permit.

VIII.H. REPORTING REQUIREMENTS

VIII.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 VIII 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 VIII of this Permit, through a permit modification in accordance with Permit Condition VIII.I. of this Permit.

VIII.H.2. At a minimum, the semiannual progress reports shall contain the following:

VIII.H.2.a. A description of the work completed;

VIII.H.2.b. Summaries of all findings and summaries of all raw data;

VIII.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

VIII.H.2.d. Projected work for the next reporting period.

VIII.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.

VIII.H.4. As specified under Permit Condition VIII.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.

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

Requests for modifications of the final compliance dates pursuant to the permit conditions in Module VIII 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 VIII of this Permit) final compliance dates subject to modification include:

- VIII.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 V);
- VIII.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);
- VIII.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 V.A.), in accordance with Permit Condition VIII.F.2. of this Permit;
- VIII.I.4. Once established in accordance with Permit Condition VIII.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 VIII.G.3. of this Permit;
- VIII.I.5. Compliance dates, as specified in Tables 5 and 6 of this Permit, for implementing the approved plans and/or reports; and
- VIII.I.6. Compliance dates for quarterly submittal of progress reports.
- VIII.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.
- VIII.I.8. Failure to obtain adequate funds or appropriations to conduct the Corrective Measures Implementation Program Plan, pursuant to Permit Condition VIII.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 VIII.I.7. of this Permit, only in accordance with the following permit conditions:
 - VIII.I.8.a. The Permittee shall use its best effort to secure all funds that may be required for implementation of the requirements specified in Permit Condition VIII.G.3. of this Permit pursuant to the compliance schedule in Table 6 of this Permit;
 - VIII.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."
 - VIII.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 VIII.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.

- VIII.I.8.d. Upon evaluation, if the Director determines that good cause exists in accordance with the permit conditions under VIII.I.8. of this Permit, the Director shall modify the compliance schedule.
- VIII.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 VIII.I.8. of this Permit.
- VIII.I.9. Failure to obtain adequate funds or appropriations from Congress shall not, in any way, release the Permittee from its obligation to comply with the Corrective Measures Implementation (as required by Permit Condition VIII.G.3 of this Permit) or any other requirement of this Permit or RCRA.
- VIII.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.
- VIII.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 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 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.

II.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.

TABLES

TABLE 1
<p>SOLID WASTE MANAGEMENT UNITS (SWMUs) AT THE INL UNDER INVESTIGATION FOR RELEASES</p> <p>To be submitted by Permittee in accordance with Permit Condition II.K. of the MFC Partial Permit (Effective Date: October 1, 2015).</p>

TABLE 2
<p>SWMUs AT THE INL WITH KNOWN RELEASES</p> <p>To be submitted by Permittee in accordance with Permit Condition II.K. of the MFC Partial Permit (Effective Date: October 1, 2015).</p>

TABLE 3
<p>SWMUs AT THE INL WITH NO FURTHER ACTION DETERMINATIONS</p> <p>To be submitted by Permittee in accordance with Permit Condition II.K. of the MFC Partial Permit (Effective Date: October 1, 2015).</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 VIII.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	
<u>RFI ACTIVITY</u>	<u>DUE DATE</u>
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.

United States Environmental Protection Agency RCRA SUBTITLE C SITE IDENTIFICATION FORM	
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1. Reason for Submittal (Select only one.)

<input type="checkbox"/>	Obtaining or updating an EPA ID number for an on-going regulated activity that will continue for a period of time. (Includes HSM activity)
<input type="checkbox"/>	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
<input type="checkbox"/>	Site was a TSD facility and/or generator of $\geq 1,000$ kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in one or more months of the reporting year (or State equivalent LQG regulations)
<input type="checkbox"/>	Notifying that regulated activity is no longer occurring at this Site
<input type="checkbox"/>	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
<input checked="" type="checkbox"/>	Submitting a new or revised Part A Form: CLASS 2 PMR/RTA FOR THE VOLUME 18 - RWMC, EFF. DATE: 12/17/19

2. Site EPA ID Number

I	D	4	8	9	0	0	0	8	9	5	2
---	---	---	---	---	---	---	---	---	---	---	---

3. Site Name

IDAHO NATIONAL LABORATORY

4. Site Location Address

Street Address		
City, Town, or Village SCOVILLE	County BUTTE, CLARK, JEFFERSON, BINGHAM, BONNEVILLE	
State ID	Country USA	Zip Code 83415

5. Site Mailing Address

Same as Location Address

Street Address 1955 FREMONT AVENUE		
City, Town, or Village IDAHO FALLS		
State ID	Country USA	Zip Code 83415

6. Site Land Type

<input type="checkbox"/> Private	<input type="checkbox"/> County	<input type="checkbox"/> District	<input checked="" type="checkbox"/> Federal	<input type="checkbox"/> Tribal	<input type="checkbox"/> Municipal	<input type="checkbox"/> State	<input type="checkbox"/> Other
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7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary) 92411	C. 336992
B. 54171	D.

8. Site Contact Information

 Same as Location Address

First Name	NICOLE	MI	K	Last Name	HERNANDEZ
Title	DIRECTOR, ENVIRONMENT & SUSTAINABILITY DIVISION				
Street Address	1955 FREMONT AVENUE				
City, Town, or Village	IDAHO FALLS				
State	ID	Country	USA	Zip Code	83415
Email	HERNANNK@ID.DOE.GOV				
Phone	(208) 526-8949	Ext	N/A	Fax	(208) 526-5678

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner

 Same as Location Address

Full Name	US DEPARTMENT OF ENERGY IDAHO OPERATIONS OFFICE			Date Became Owner (mm/dd/yyyy)	1/1/1952
Owner Type	<input type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other				
Street Address	1955 FREMONT AVENUE				
City, Town, or Village	IDAHO FALLS				
State	ID	Country	USA	Zip Code	83415
Email	HERNANNK@ID.DOE.GOV				
Phone	(208) 526-8949	Ext	N/A	Fax	(208) 526-5678
Comments					

B. Name of Site's Legal Operator

 Same as Location Address

Full Name	FLUOR IDAHO, LLC			Date Became Operator (mm/dd/yyyy)	6/1/2016
Operator Type	<input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other				
Street Address	1580 SAWTELLE STREET				
City, Town, or Village	IDAHO FALLS				
State	ID	Country	USA	Zip Code	83402
Email	FRED.HUGHES@ICP.DOE.GOV				
Phone	(208) 533-0525	Ext	N/A	Fax	(208)533-0202
Comments					

10. Type of Regulated Waste Activity (at your site)

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c	
<input checked="" type="checkbox"/>	a. LQG	-Generates, in any calendar month (includes quantities imported by importer site) 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste; or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.
<input type="checkbox"/>	b. SQG	100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
<input type="checkbox"/>	c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section. <i>Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.</i>	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities.	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	4. Receives Hazardous Waste from Off-site	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	5 Recycler of Hazardous Waste	
<input checked="" type="checkbox"/>	a. Recycler who stores prior to recycling	
<input type="checkbox"/>	b. Recycler who does not store prior to recycling	
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.	
<input type="checkbox"/>	a. Small Quantity On-site Burner Exemption	
<input type="checkbox"/>	b. Smelting, Melting, and Refining Furnace Exemption	

B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

See item 18: Comments (page 7 of 7).							

C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes. Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

Same as item 10.B.							

11. Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)**A. Other Waste Activities**

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1. Transporter of Hazardous Waste—If “Yes”, mark all that apply.
<input checked="" type="checkbox"/>	a. Transporter
<input type="checkbox"/>	b. Transfer Facility (at your site)
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Underground Injection Control
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	3. United States Importer of Hazardous Waste
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	4. Recognized Trader—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Importer
<input type="checkbox"/>	b. Exporter
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Importer
<input type="checkbox"/>	b. Exporter

B. Universal Waste Activities

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If “Yes” mark all that apply. Note: Refer to your State regulations to determine what is regulated.
<input checked="" type="checkbox"/>	a. Batteries
<input checked="" type="checkbox"/>	b. Pesticides
<input checked="" type="checkbox"/>	c. Mercury containing equipment
<input checked="" type="checkbox"/>	d. Lamps
<input type="checkbox"/>	e. Other (specify) _____
<input type="checkbox"/>	f. Other (specify) _____
<input type="checkbox"/>	g. Other (specify) _____
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Used Oil Transporter—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Transporter
<input type="checkbox"/>	b. Transfer Facility (at your site)
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Used Oil Processor and/or Re-refiner—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Processor
<input type="checkbox"/>	b. Re-refiner
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	3. Off-Specification Used Oil Burner
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	4. Used Oil Fuel Marketer—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
<input type="checkbox"/>	b. Marketer Who First Claims the Used Oil Meets the Specifications

D. Pharmaceutical Activities

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Operating under 40 CFR 266 Subpart P for the management of hazardous waste pharmaceuticals—if “Yes”, mark only one. Note: See the item-by-item instructions for definitions of healthcare facility and reverse distributor.
<input type="checkbox"/>	a. Healthcare Facility
<input type="checkbox"/>	b. Reverse Distributor
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Withdrawing from operating under 40 CFR 266 Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is no longer an LQG or SQG.

12. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR 262 Subpart K.

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	A. Opting into or currently operating under 40 CFR 262 Subpart K for the management of hazardous wastes in laboratories— If “Yes”, mark all that apply. Note: See the item-by-item instructions for definitions of types of eligible academic entities.
<input type="checkbox"/>	1. College or University
<input type="checkbox"/>	2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university
<input type="checkbox"/>	3. Non-profit Institute that is owned by or has a formal written affiliation with a college or university
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	B. Withdrawing from 40 CFR 262 Subpart K for the management of hazardous wastes in laboratories.

13. Episodic Generation

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If “Yes”, you must fill out the Addendum for Episodic Generator?
--	---

14. LQG Consolidation of VSQG Hazardous Waste

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If “Yes”, you must fill out the Addendum for LQG Consolidation of VSQGs hazardous waste.
--	--

15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility.
A. <input type="checkbox"/> Central Accumulation Area (CAA) or <input type="checkbox"/> Entire Facility	
B. Expected closure date: _____ mm/dd/yyyy	
C. Requesting new closure date: _____ mm/dd/yyyy	
D. Date closed : _____ mm/dd/yyyy	
<input type="checkbox"/>	1. In compliance with the closure performance standards 40 CFR 262.17(a)(8)
<input type="checkbox"/>	2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8)

16. Notification of Hazardous Secondary Material (HSM) Activity Y N

Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.

17. Electronic Manifest Broker Y N

Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?

United States Environmental Protection Agency
HAZARDOUS WASTE PERMIT PART A FORM



1. Facility Permit Contact

First Name	NICOLE	MI	K	Last Name	HERNANDEZ
Title	DIRECTOR, ENVIRONMENT & SUSTAINABILITY DIVISION				
Email	HERNANNK@ID.DOE.GOV				
Phone	(208) 526-8949	Ext	N/A	Fax	(208) 526-5678

2. Facility Permit Contact Mailing Address

Street Address	1955 FREMONT DRIVE				
City, Town, or Village	IDAHO FALLS				
State	ID	Country	USA	Zip Code	83415

3. Facility Existence Date (mm/dd/yyyy)

1/1/1949

4. Other Environmental Permits

A. Permit Type	B. Permit Number										C. Description		
R	I	D	4	8	9	0	0	0	8	9	5	2	Final HWMA Storage & Treatment Permit for the INTEC on the INL (Volume 14)
R	I	D	4	8	9	0	0	0	8	9	5	2	Final HWMA Storage & Treatment Permit for the INTEC and RWMC on the INL (Volume 18)
R	I	D	4	8	9	0	0	0	8	9	5	2	HWMA/RCRA Part B Permit Application for the INL (Volume 3)
R	I	D	4	8	9	0	0	0	8	9	5	2	HWMA/RCRA Post-Closure Permit for the INTEC on the INL - Waste Calcine Facility and CPP-601/627/640 (Volume 21)
R	I	D	4	8	9	0	0	0	8	9	5	2	HWMA/RCRA Storage Permit for the CSSF at the INTEC on the INL (Volume 22)
R	I	D	4	8	9	0	0	0	8	9	5	2	HWMA/RCRA Part A Permit Application for the INL - INTEC (Volume 1)
													See Additional Information Supplement to Item 4 - Other Environmental Permits List (page 1a of 2)

5. Nature of Business

The Idaho National Laboratory was established in 1949, as a center where nuclear power reactors and support facilities could be built, tested, and operated. The INL Site covers approximately 890 square miles and is 25 miles west of Idaho Falls, ID. For many years, the INL Site was the site of the largest nuclear power research & development effort in the world. During the 1970's, the INL Site's mission broadened to include such areas as biotechnology, energy and materials research, and conservation and renewable energy. At the end of the Cold War, waste treatment and cleanup of previously contaminated sites became a priority. Today the INL Site is a science-based, applied engineering national laboratory dedicated to completing its waste cleanup mission and meeting the nation's environmental, energy, nuclear science and technology, and national security needs. Additionally, in 2002, it was announced that the INL Site will serve as the nation's leading nuclear technology center.

**Supplement to Item 4.
Other Environmental Permits List**

RCRA PERMITS

State of Idaho Hazardous Waste Permit

(Permit Type R)

- Part A Permit Application for Interim Status Unit (TSA1/R) - AMWTP
- HWMA/RCRA Part B Permit for the INL - Advanced Mixed Waste Treatment Project (AMWTP)

AIR QUALITY PERMITS

State of Idaho Permit to Construct (PTC)

PTC (Permit Number P-2015.0023)

- INL Sitewide Permit to Construct Facility Emissions Cap

PTC (Permit Number P-2008.0199)

- Integrated Waste Treatment Unit at the INL - Idaho Nuclear Technology and Engineering Center

WATER PERMITS

State of Idaho Monitoring Well Permit (IDWR)

(Permit Type U)

INL monitoring well permit applications are sent annually to the IDWR for wells (greater than 18 feet deep) to be constructed in the current calendar year. Permits are authorized by agreement between the DOE-ID and the IDWR.

State of Idaho Wastewater Reuse Permits (WRP)

(Permit Type E)

INL INTEC New Percolation Ponds - Permit Number: M-130-06

Ground Water Rights

INL operations use water guaranteed by both a Federal Reserved Water Right and a water rights agreement with the State of Idaho.

6. Process Codes and Design Capacities

Line Number	A. Process Code			B. Process Design Capacity		C. Process Total Number of Units	D. Unit Name
				(1) Amount	(2) Unit of Measure		
1	S	0	1	362,227	G	22	See pages 2a-2b of 2. Supplement to Item 6: Processw Codes and Design Capacities.
2	X	9	9	22,660	U	11	
3	X	0	2	11,000	U	2	
4	X	9	9	53,190	U	3	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1)
See Supplemental pages to Item 7: Description of Hazardous Wastes, pages 2(A-1) through 2(A-4) of 2, 2(B-1) through 2(B-4) of 2, and 2(C-1) through 2(C-4) of 2.					

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments

Item 8: See Book 3A of 3, Attachment 1 - Section B, Facility Description, Exhibit B-3 for Topographic Map.
 Item 9: See Book 3A of 3, Attachment 1 - Section B, Facility Description, Exhibits B-1 through B-11; and Book 3B of 3, Appendix 1 - Facility Drawings.
 Item 10: See Book 3A of 3, Attachment 1 - Part A Permit Application, pages 2(E-1) through 2(E-26) of 2 for Facility Photographs.
 Item 11: See Book 3A of 3, Attachment 1 - Part A Permit Application, page 2(D) of 2 for Additional Information

**SUPPLEMENT TO ITEM 6.
PROCESS CODES AND DESIGN CAPACITIES**

LINE NUMBER	PROCESS TYPE - UNIT NAME		PROCESS DESIGN CAPACITY
1	<p>S01 - CONTAINER STORAGE includes:</p> <ul style="list-style-type: none"> ● WMF-698 Storage Enclosure @ 1,973 drum equivalents 108,515 gallons ● WMF-1617 <ul style="list-style-type: none"> * Room 104 - Equipment Airlock @ 38 drums 2,090 gallons * Room 105 - Drum Packaging Station (DPS) Area @ 6 drums 330 gallons * Room 106 - Utility Area @ 320 drums 17,600 gallons * Rooms 101, 102, 103 - Drum Compactor Area @ 2 standard waste boxes and 8 drum equivalents 1,787 gallons ● Outside Storage Areas <ul style="list-style-type: none"> * Near WMF-1617 <ul style="list-style-type: none"> - 3 Trailers @ 16 boxes at 90 cubic ft/box (10,772 gallons) 32,316 gallons - 4 Cargo Containers @ 9,574 gallons 38,296 gallons - 16 boxes @ 90 cubic ft/box 10,772 gallons * Near WMF-698 @ 2 trailers @ 10,772 gallons each 21,544 gallons * Bridge Area @ 1 trailer @ 10,772 gallons 10,772 gallons ● Near WMF-1619 (South-East of WMF-1619) <ul style="list-style-type: none"> * 3 trailers (10,772 gallons/trailer) 32,316 gallons * 1 Cargo Container (9,574 gallons) 9,574 gallons ● Near WMF-1619 (North of WMF-1619) <ul style="list-style-type: none"> * 16 boxes @ 90 cubic ft/box 10,772 gallons ● Trailer Storage Area Near WMF-1621 @ 1 trailer (10,772 gallons/trailer) 10,772 gallons ● WMF-1619 - DEBRIS REPACKAGE PROJECT (DRP) <ul style="list-style-type: none"> Rooms 101/102/103 Service Bay Area (2 oversized boxes @ 9,200 gallons, 2 standard boxes @ 1,348 gallons, 8 drum equivalents @ 440 gallons) 10,988 gallons * Room 104 Equipment Airlock (2 oversized boxes @ 9,200 gallons) 9,200 gallons * Room 105 DPS Room - 6 total drums @ 55 gallons each 330 gallons * Room 106 - Utility Area (2 oversized boxes @ 9,200 gallons, 4 standard boxes @ 2,696 gallons, and 10 drums @ 550 gallons) 12,446 gallons ● WMF-1619 - SLUDGE REPACKAGE PROJECT (SRP) <ul style="list-style-type: none"> * Rooms 101/102/103 Service Bay Area 1,787 gallons * Room 104 Equipment Airlock 2,090 gallons * Room 105 DPS Room - 6 total drums @ 55 gallons/drum each 330 gallons * Room 106 - Utility Area (320 drums @ 55 gallons/drum) 17,600 gallons 		
		Line 1 Total:	362,227 gallons
2	<p>X99 - MISCELLANEOUS TREATMENT includes:</p> <ul style="list-style-type: none"> * WMF-1617 Retrieval Area Sorting Table treatment @ 50 drums treated/day 2,750 gallons/day * WMF-1617, Room 105 - Drum Packaging Stations (DPS) (100 drums/day) 5,500 gallons/day * WMF-1617, Room 103 - Drum Compactor (absorbent addition) 10 gallons/day ● WMF-1619 DEBRIS REPACKAGE PROJECT (DRP) <ul style="list-style-type: none"> * WMF-1619, Retrieval Area Sorting Area treatment @ 2 large boxes treated per day 2,800 gallons/day * WMF-1619, Room 103, Sorting Area treatment @ 2 large boxes treated per day 2,800 gallons/day * WMF-1619, 4 Drum Packaging Stations @ 8 drums per day total 440 gallons/day * WMF-1619 Absorbent Addition <ul style="list-style-type: none"> -Room 103 Service Bay 50 gallons/day -Debris Box Containment Pan (Box Transfer Pan) within the Retrieval Area 50 gallons/day 		

**SUPPLEMENT TO ITEM 6.
 PROCESS CODES AND DESIGN CAPACITIES**

LINE NUMBER	PROCESS TYPE - UNIT NAME		PROCESS DESIGN CAPACITY
2	X99 - MISCELLANEOUS TREATMENT includes (continued from page 2a of 2): <ul style="list-style-type: none"> • WMF-1619 SLUDGE REPACKAGE PROJECT (SRP) <ul style="list-style-type: none"> * WMF-1619 Retrieval Area Sorting Table treatment @ 50 drums treated/day * WMF-1619, Room 105 - Drum Packaging Stations (DPS) @ 100 drums/day * WMF-1619, Room 103 - Drum Compactor (absorbent addition) 		<p align="right">2,750 gallons/day</p> <p align="right">5,500 gallons/day</p> <p align="right">10 gallons/day</p>
		Line 2 Total:	22,660 gallons/day
3	X02 - MECHANICAL PROCESSING TREATMENT includes: <ul style="list-style-type: none"> • WMF-1617, Room 103 - Drum Compactor (crushing) @ 100 drums/day • WMF-1619 SRP <ul style="list-style-type: none"> * Room 103 - Drum Compactor (crushing) @ 100 drums/day 		<p align="right">5,500 gallons/day</p> <p align="right">5,500 gallons/day</p>
		Line 3 Total:	11,000 gallons/day
4	X99 - MISCELLANEOUS STORAGE includes: <ul style="list-style-type: none"> • WMF-1617 Retrieval Area • WMF-1619 <ul style="list-style-type: none"> * Retrieval Area - DRP * Retrieval Area - SRP 		<p align="right">17,730 gallons/day</p> <p align="right">17,730 gallons/day</p> <p align="right">17,730 gallons/day</p>
		Line 4 Total:	53,190 gallons/day

ITEM 7. DESCRIPTION OF HAZARDOUS WASTES (ENTER CODES FOR ITEMS 7.A, 7.C AND 7.D(1))

Line No.	A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. PROCESSES									
	(1) PROCESS CODES										(2) PROCESS DESCRIPTION (If a code is not entered in 7.D(1))					
1	D	0	0	2	2,000,000	P	S	0	1	X	9	9	X	0	2	WMF-1617 (ARP V) Storage and Treatment Units
2	D	0	0	4												INCLUDED WITH ABOVE
3	D	0	0	5												INCLUDED WITH ABOVE
4	D	0	0	6												INCLUDED WITH ABOVE
5	D	0	0	7												INCLUDED WITH ABOVE
6	D	0	0	8												INCLUDED WITH ABOVE
7	D	0	0	9												INCLUDED WITH ABOVE
8	D	0	1	0												INCLUDED WITH ABOVE
9	D	0	1	1												INCLUDED WITH ABOVE
10	D	0	1	2												INCLUDED WITH ABOVE
11	D	0	1	8												INCLUDED WITH ABOVE
12	D	0	1	9												INCLUDED WITH ABOVE
13	D	0	2	0												INCLUDED WITH ABOVE
14	D	0	2	1												INCLUDED WITH ABOVE
15	D	0	2	2												INCLUDED WITH ABOVE
16	D	0	2	3												INCLUDED WITH ABOVE
17	D	0	2	4												INCLUDED WITH ABOVE
18	D	0	2	5												INCLUDED WITH ABOVE
19	D	0	2	6												INCLUDED WITH ABOVE
20	D	0	2	7												INCLUDED WITH ABOVE
21	D	0	2	8												INCLUDED WITH ABOVE
22	D	0	2	9												INCLUDED WITH ABOVE
23	D	0	3	0												INCLUDED WITH ABOVE
24	D	0	3	1												INCLUDED WITH ABOVE
25	D	0	3	2												INCLUDED WITH ABOVE
26	D	0	3	3												INCLUDED WITH ABOVE
27	D	0	3	4												INCLUDED WITH ABOVE
28	D	0	3	5												INCLUDED WITH ABOVE
29	D	0	3	6												INCLUDED WITH ABOVE
30	D	0	3	7												INCLUDED WITH ABOVE
31	D	0	3	8												INCLUDED WITH ABOVE
32	D	0	3	9												INCLUDED WITH ABOVE
33	D	0	4	0												INCLUDED WITH ABOVE
34	D	0	4	1												INCLUDED WITH ABOVE
35	D	0	4	2												INCLUDED WITH ABOVE
36	D	0	4	3												INCLUDED WITH ABOVE

ITEM 7. DESCRIPTION OF HAZARDOUS WASTES (ENTER CODES FOR ITEMS 7.A, 7.C AND 7.D(1))

Line No.	A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. PROCESSES									
	(1) PROCESS CODES										(2) PROCESS DESCRIPTION (If a code is not entered in 7.D(1))					
1	D	0	0	2	2,000,000	P	S	0	1	X	9	9	X	0	2	WMF-1619 (ARP VII) Storage and Treatment Units
2	D	0	0	4												INCLUDED WITH ABOVE
3	D	0	0	5												INCLUDED WITH ABOVE
4	D	0	0	6												INCLUDED WITH ABOVE
5	D	0	0	7												INCLUDED WITH ABOVE
6	D	0	0	8												INCLUDED WITH ABOVE
7	D	0	0	9												INCLUDED WITH ABOVE
8	D	0	1	0												INCLUDED WITH ABOVE
9	D	0	1	1												INCLUDED WITH ABOVE
10	D	0	1	2												INCLUDED WITH ABOVE
11	D	0	1	8												INCLUDED WITH ABOVE
12	D	0	1	9												INCLUDED WITH ABOVE
13	D	0	2	0												INCLUDED WITH ABOVE
14	D	0	2	1												INCLUDED WITH ABOVE
15	D	0	2	2												INCLUDED WITH ABOVE
16	D	0	2	3												INCLUDED WITH ABOVE
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18	D	0	2	5												INCLUDED WITH ABOVE
19	D	0	2	6												INCLUDED WITH ABOVE
20	D	0	2	7												INCLUDED WITH ABOVE
21	D	0	2	8												INCLUDED WITH ABOVE
22	D	0	2	9												INCLUDED WITH ABOVE
23	D	0	3	0												INCLUDED WITH ABOVE
24	D	0	3	1												INCLUDED WITH ABOVE
25	D	0	3	2												INCLUDED WITH ABOVE
26	D	0	3	3												INCLUDED WITH ABOVE
27	D	0	3	4												INCLUDED WITH ABOVE
28	D	0	3	5												INCLUDED WITH ABOVE
29	D	0	3	6												INCLUDED WITH ABOVE
30	D	0	3	7												INCLUDED WITH ABOVE
31	D	0	3	8												INCLUDED WITH ABOVE
32	D	0	3	9												INCLUDED WITH ABOVE
33	D	0	4	0												INCLUDED WITH ABOVE
34	D	0	4	1												INCLUDED WITH ABOVE
35	D	0	4	2												INCLUDED WITH ABOVE
36	D	0	4	3												INCLUDED WITH ABOVE

ITEM 7. DESCRIPTION OF HAZARDOUS WASTES (ENTER CODES FOR ITEMS 7.A, 7.C AND 7.D(1))

Line No.	A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. PROCESSES														
	(1) PROCESS CODES										(2) PROCESS DESCRIPTION (If a code is not entered in 7.D(1))										
1	D	0	0	2	2,000,000	P	S	0	1												WMF-698 STORAGE & RWMC OUTSIDE STORAGE AREAS
2	D	0	0	4																	INCLUDED WITH ABOVE
3	D	0	0	5																	INCLUDED WITH ABOVE
4	D	0	0	6																	INCLUDED WITH ABOVE
5	D	0	0	7																	INCLUDED WITH ABOVE
6	D	0	0	8																	INCLUDED WITH ABOVE
7	D	0	0	9																	INCLUDED WITH ABOVE
8	D	0	1	0																	INCLUDED WITH ABOVE
9	D	0	1	1																	INCLUDED WITH ABOVE
10	D	0	1	2																	INCLUDED WITH ABOVE
11	D	0	1	8																	INCLUDED WITH ABOVE
12	D	0	1	9																	INCLUDED WITH ABOVE
13	D	0	2	0																	INCLUDED WITH ABOVE
14	D	0	2	1																	INCLUDED WITH ABOVE
15	D	0	2	2																	INCLUDED WITH ABOVE
16	D	0	2	3																	INCLUDED WITH ABOVE
17	D	0	2	4																	INCLUDED WITH ABOVE
18	D	0	2	5																	INCLUDED WITH ABOVE
19	D	0	2	6																	INCLUDED WITH ABOVE
20	D	0	2	7																	INCLUDED WITH ABOVE
21	D	0	2	8																	INCLUDED WITH ABOVE
22	D	0	2	9																	INCLUDED WITH ABOVE
23	D	0	3	0																	INCLUDED WITH ABOVE
24	D	0	3	1																	INCLUDED WITH ABOVE
25	D	0	3	2																	INCLUDED WITH ABOVE
26	D	0	3	3																	INCLUDED WITH ABOVE
27	D	0	3	4																	INCLUDED WITH ABOVE
28	D	0	3	5																	INCLUDED WITH ABOVE
29	D	0	3	6																	INCLUDED WITH ABOVE
30	D	0	3	7																	INCLUDED WITH ABOVE
31	D	0	3	8																	INCLUDED WITH ABOVE
32	D	0	3	9																	INCLUDED WITH ABOVE
33	D	0	4	0																	INCLUDED WITH ABOVE
34	D	0	4	1																	INCLUDED WITH ABOVE
35	D	0	4	2																	INCLUDED WITH ABOVE
36	D	0	4	3																	INCLUDED WITH ABOVE

**ITEM 11. ADDITIONAL INFORMATION
HAZARDOUS WASTE DEBRIS CATEGORIES**

IDAPA 58.01.05.012 [40 CFR 270.13 (n)] requires a description of the debris categories treated, stored, or disposed of at a facility to be submitted in the Part A Permit Application. Debris defined by 40 CFR 268.2 means a solid material exceeding a 60mm

Category I - Manufactured Objects

Glass
Concrete
Masonry and refractory bricks
Paper
Plastic
Rubber
Cloth
Pavement
Metal Debris
 Pipes
 Valves
 Scrap Metal
Other Heterogeneous Debris
 Non-intact containers
 Tanks
 Appliances
 Industrial Equipment

Category II - Plant and Animal Matter

Biological Debris
 Plant Matter
Wood Debris
 Wood
 Plant Stumps

Category III - Natural Geologic Material

Rock
Cobbles
Boulders

ITEM 10. PHOTOGRAPHS



Exterior of WMF-698 Storage Enclosure (S01)

ITEM 10. PHOTOGRAPHS



Exterior of WMF-698 Storage Enclosure (S01)

ITEM 10. PHOTOGRAPHS



Interior of WMF-698 Storage Enclosure (S01)

ITEM 10. PHOTOGRAPHS



West Exterior View of WMF-1617 ARP V (S01, X99, X02)

ITEM 10. PHOTOGRAPHS



Southwest Exterior View of WMF-1617 ARP V (S01, X99, X02)

ITEM 10. PHOTOGRAPHS



North End, Exterior View of WMF-1617 ARP V (S01, X99, X02)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1617 Room 103 (S01, X99, X02)

ITEM 10. PHOTOGRAPHS



**Interior View of WMF-1617 Room 103 Service Bay,
looking south/southwest with Drum Compactor (S01, X99, X02)**

ITEM 10. PHOTOGRAPHS



**Interior View of WMF-1617 Room 103 Service Bay,
looking North toward Room 102 (S01, X99, X02)**

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1617 Room 104 Equipment Airlock (S01)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1617 Room 105 Drum Packaging Stations (S01, X99)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1617 Room 105 Drum Packaging Stations (S01, X99)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1617 Room 106 Utility Area (S01)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1617 Retrieval Area (S01, X99)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1617 Retrieval Area (S01, X99)

ITEM 10. PHOTOGRAPHS



Exterior View of WMF-1619 (S01, X99, X02)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1619 Retrieval Area (S01, X99)

ITEM 10. PHOTOGRAPHS



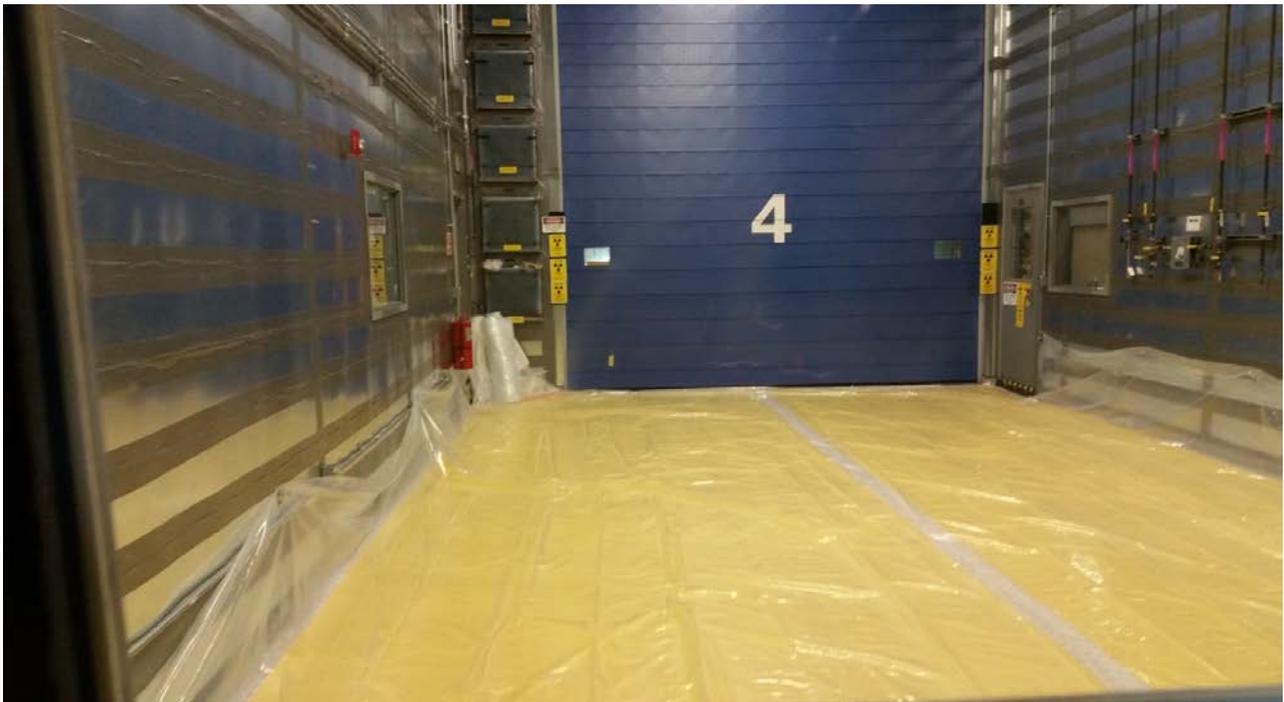
Interior View of WMF-1619 Retrieval Area (S01, X99)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1619 - Room 103 part of Service Bay Area (S01, X99, X02)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1619 - Room 104 Equipment Airlock (S01, X99)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1619 - Room 105 DPS Room (S01, X99)

ITEM 10. PHOTOGRAPHS



Interior View of WMF-1619 - Room 106 Utility Area (S01, X99)

ITEM 10. PHOTOGRAPHS



View of Outside Storage Area located to the south of WMF-1619 (S01)

ITEM 10. PHOTOGRAPHS



View of Outside Storage Area located to the North of WMF-1619 (S01)

ITEM 10. PHOTOGRAPHS



View of Outside Storage Area located to the North of WMF-1619 (S01)

ITEM 10. PHOTOGRAPHS



View of Outside Storage Area looking southwest of WMF-1621 (S01)

HWMA/RCRA PART B PERMIT
FOR THE
IDAHO NATIONAL LABORATORY

BOOK 3A
Volume 18 –Radioactive Waste Management Complex

ATTACHMENT 1

SUBSURFACE DISPOSAL AREA (SDA)
WMF-698
WMF-1617
WMF-1619

Section B – Facility Description
And
Section D – Process Description

Revision Date: December 17, 2019

TABLE OF CONTENTS

B. FACILITY DESCRIPTION	1
B-1. Facility Description [IDAPA 58.01.05.012; 40 CFR 270.14(b)(1)]	1
D. PROCESS INFORMATION	31
D-1a(2) Container Management Practices [IDAPA 58.01.05.008; 40 CFR 264.173]	56
D-1a(3) Secondary Containment System Design and Operation [IDAPA 58.01.05.012 and 58.01.05.008; 40 CFR 270.15(a) and (b), 264.175(a) through 264.175(d)]	58
D-1b. Containers without Free Liquids.....	59
D-1b(1) Test for Free Liquids [IDAPA 58.01.05.012; 40 CFR 270.15(b)(1)]	59
D-1b(2) Description of Containers [IDAPA 58.01.05.008; 40 CFR 264.171 and 264.172]	59
D-8. Miscellaneous Units [IDAPA 58.01.05.012 and 58.01.05.008; 40 CFR 270.23 and 264.601]	59
D-8a. Description of Miscellaneous Units [IDAPA 58.01.05.012; 40 CFR 270.23(a)(1) and (2)]	60
D-8b. Environmental Performance Standards for Miscellaneous Units [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR 264.601 and 270.23(c)]	61
D-8b(1) Miscellaneous Unit Wastes [IDAPA 58.01.05.008; 40 CFR 264.601(a)(1), 264.601(b)(1), and 264.601(c)(1)]	62
D-8b(2) Containment System [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR 264.601(b)(2) and 270.23(a)(2)].....	62
D-8b(3) Site Air Conditions [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR 264.601(c)(4) and (5), and 270.23(b)]	63
D-8b(4) Prevention of Air Emissions [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR 264.601(c)(2) and 270.23(a)(2)].....	63
D-8b(5) Operating Standards [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR 264.601(c)(3) and 270.23(a)(2)].....	64
D-8b(6) Site Hydrogeologic Conditions [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR 264.601(a)(2), (3), and (4), 264.601(b)(3) and (5), and 270.23(b)]	64
D-8b(7) Site Precipitation [IDAPA 58.01.05.008; 40 CFR 264.601(b)(4)]	64
D-8b(8) Groundwater Usage [IDAPA 58.01.05.008; 40 CFR 264.601(a)(5)]	64
D-8b(9) Surface Waters and Surface Soils [IDAPA 58.01.05.008; 40 CFR 264.601 (b)(6), (7), and (8)]	64

D-8b(10) Area Land Use [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR 264.601(a)(6)31 and (b)(9), and 270.23(b)]	65
D-8b(11) Migration of Waste Constituents [IDAPA 58.01.05.008; 40 CFR 264.601(a)(7)]44.....	65
D-8b(12) Evaluation of Risk to Human Health and the Environment [IDAPA 58.01.05.008; 40 CFR 264.601(a)(8) and (9), 264.601(b)(10) and (11), and 264.601(c)(6) and (7)]	65

EXHIBITS

EXHIBIT B-1. Map of the INL Showing Major Facility Areas.....	2
EXHIBIT B-2. RWMC Area Map.....	5
EXHIBIT B-3. Topographical map of the RWMC.....	6
EXHIBIT B-4. RWMC Surface Water Drainage	7
EXHIBIT B-5. Building WMF-698 Storage Enclosure Plan.....	10
EXHIBIT B-6. Schematic of WMF-1617	19
EXHIBIT B-7. Schematic of Airlock 5 Plan	20
EXHIBIT B-8. WMF1617 Entry Vestibule and Drum Transfer Vestibule.....	20a
EXHIBIT B-9. Schematic of WMF-1619 Processing and Storage Plan for DRP Operations.....	27
EXHIBIT B-10. Schematic of WMF-1619 Processing and Storage Plan for SRP Operations.....	27a
EXHIBIT B-11. Schematic of WMF-1619 Airlock 6 Drum Storage Plan.....	27b
EXHIBIT B-12. Example of Traffic Sign Plan/Location	30
EXHIBIT D-1. Sorting Table Schematic	37
EXHIBIT D-2. Sorting Table.....	38
EXHIBIT D-3. WMF-1617 Retrieval Enclosure Camera Plan	41
EXHIBIT D-4. Example of Drum Compactor used at WMF-1619 and WMF-1617	42
EXHIBIT D-5. Debris Box Containment and Secondary Containment	49
EXHIBIT D-6a. 9' X 6' Box Transfer Pan	50
EXHIBIT D-6b. Modified Box Transfer Pan (Sheet 1).....	51
EXHIBIT D-6b. Modified Box Transfer Pan (Sheet 2).....	52
EXHIBIT D-7. WMF-1619 Retrieval Enclosure Camera Plan for SRP and DRP Operations.....	54

1 **B. FACILITY DESCRIPTION**

2 **B-1 Facility Description [IDAPA 58.01.05.012; 40 CFR 270.14(b)(1)]**

3 The Idaho National Laboratory (INL) is owned by the U.S. Department of Energy
4 (DOE). The DOE facilities located at the INL are operated by multiple contractors designated
5 by the DOE. Exhibit B-1 is a map of the INL that identifies the locations of the major facility
6 areas.

7 The Radioactive Waste Management Complex (RWMC) is a restricted area of 166
8 acres located in the southwestern corner of the INL. Exhibit B-1 of this Attachment shows the
9 location of the RWMC at the INL. The RWMC provides facilities for the management of
10 radioactive only wastes, mixed wastes (MW), and Comprehensive Environmental Response
11 Compensation and Liability Act (CERCLA) waste. Radioactive only wastes contain
12 radioactive materials as defined by the Atomic Energy Act (AEA). Radioactive only wastes
13 are not regulated as hazardous or mixed waste by the Idaho Hazardous Waste Management
14 Act (HWMA) or by the Resource Conservation and Recovery Act (RCRA). MW is waste
15 that is radioactive as defined by the AEA and hazardous as defined by IDAPA 58.01.05.005
16 (40 CFR 261). MW stored in the RWMC permitted units is not regulated under the
17 HWMA/RCRA, Subpart CC – Air Emission Standards for Tanks, Surface Impoundments,
18 and Containers, as MW is exempted in 40 CFR 264.1080(b)(6) because it is stored in
19 compliance with all applicable regulations under the authority of the Atomic Energy Act and
20 the Nuclear Waste Policy Act. Some wastes stored at the RWMC are also regulated by the
21 Toxic Substances Control Act (TSCA). CERCLA wastes may be handled in the units
22 regulated under this permit but are not subject to the conditions of the permit and are
23 segregated from RCRA waste. Disposition of CERCLA waste is controlled through the
24 CERCLA process.

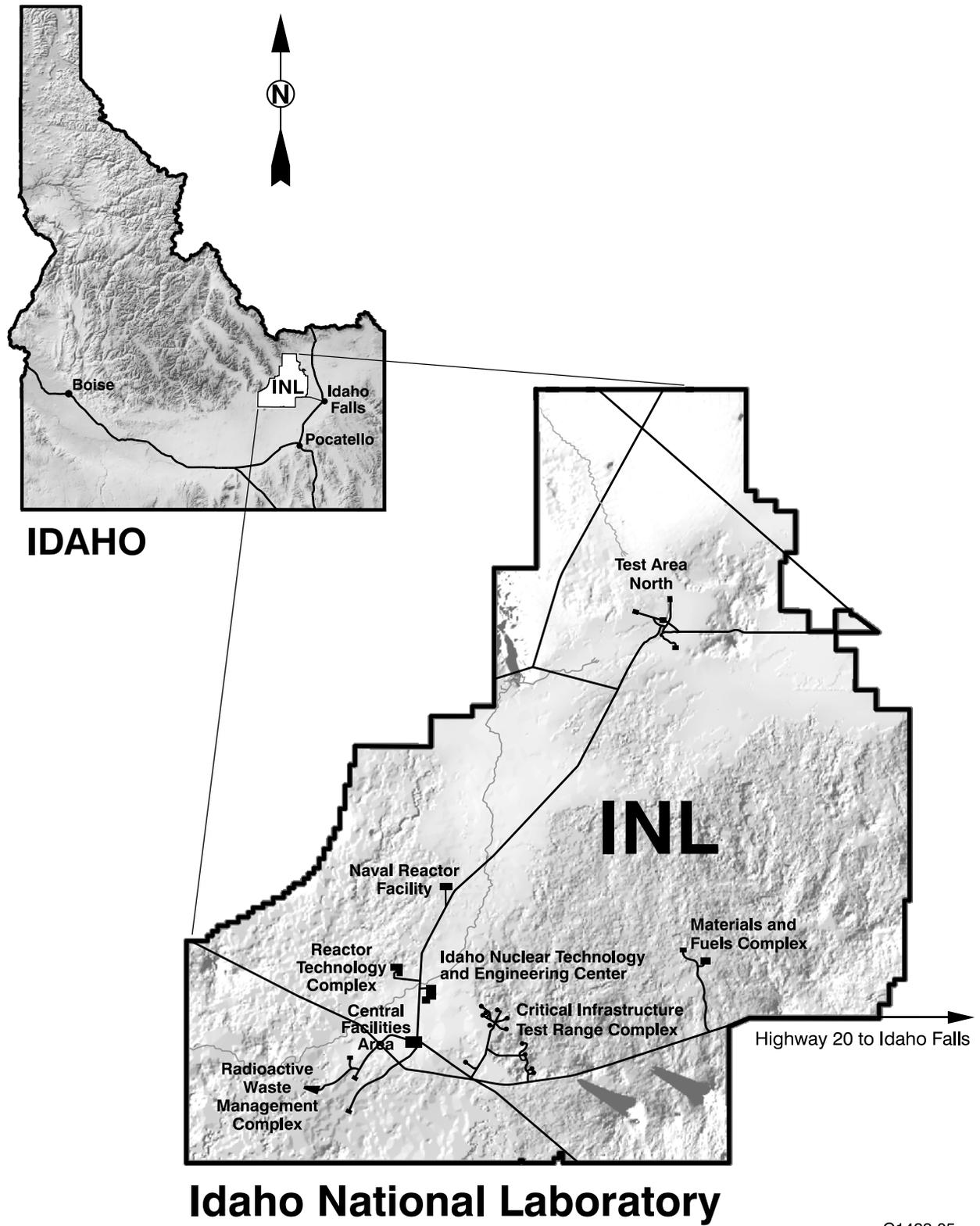


EXHIBIT B-1. Map of the INL Showing Major Facility Areas.

G1422-05

1 The RWMC comprises four major areas: the Administrative Area, the Operations
2 Area, the Subsurface Disposal Area (SDA), and the Transuranic Storage Area (TSA). These
3 areas are described below and illustrated in Exhibit B-2 of this Attachment. This Permit
4 addresses waste management units located at the SDA.

5 The Administrative Area is located in the northeast section of the RWMC and consists
6 of buildings and structures supporting administrative operations. These include office space
7 and change rooms for workers and the security gate. It occupies approximately 3 acres of the
8 RWMC and contains no waste management units.

9 The Operations Area is located in the northeast section of the RWMC adjacent to the
10 Administrative Area and consists of buildings and structures supporting operations. These
11 include office space, the fire and domestic water supply, and equipment storage and
12 maintenance areas. It occupies approximately 8 acres of the RWMC and contains a waste
13 storage area within and adjacent to WMF-602. The Operations Area also contains Satellite
14 Accumulation Areas (SAAs) and less than 90-day storage areas (TAAs).

15 The TSA is a fenced, 58-acre storage area located in the southeastern section of the
16 RWMC. This area is the location of the Advanced Mixed Waste Treatment Project
17 (AMWTP). The major functions of the TSA are storage, examination, certification,
18 transuranic package transporter (TRUPACT) assembly, and TRUPACT cask loading of waste
19 which is destined for shipment to the Waste Isolation Pilot Plant (WIPP) or for treatment at an
20 on- or off-Site facility.

21 The SDA is a fenced, 97-acre, shallow-land subsurface disposal site located in the
22 western section of the RWMC. It was dedicated to the disposal of solid, low-level beta-
23 gamma radioactive waste. The SDA contains pits, trenches, soil vaults, and an asphalt pad
24 (Pad A). TRU waste disposal was discontinued in 1970. Pad A ceased operation in 1978.
25 The SDA is identified as a solid waste management unit (SWMU) under the FFA/CO for the
26 INL.

1 The primary work being conducted at the SDA consists of buried waste retrieval. This
2 effort known as the Accelerated Retrieval Project (ARP), includes retrieval, identification,
3 repackaging, and disposition of targeted transuranic waste. The waste targeted for retrieval
4 includes plutonium-contaminated filters, graphite and process sludge, oxidized (depleted)
5 uranium, and solvent wastes. The material originated at the Rocky Flats Plant near Denver,
6 Colorado, during nuclear weapons production in the 1950s and 1960s.

7 In addition, the WMF-1617 is used to repackage drummed waste from AMWTP for
8 absorption of liquids, removal/treatment of prohibited items, and visual verification to meet
9 acceptance criteria at the WIPP, also known as the Sludge Repackage Project (SRP). The
10 WMF-1619 is used to repackage boxes with large debris items from AMWTP, also known as
11 the Debris Repackage Project (DRP). Additionally, WMF-1619 is used to repackage SRP
12 drummed waste from AMWTP for absorption of liquids, removal/treatment of prohibited
13 items, and visual verification to meet acceptance criteria at the WIPP.

14 HWMA/RCRA regulated units at the SDA consist of Building WMF-698 which is
15 regulated under HWMA/RCRA as a container storage unit, Building WMF-1617 which is
16 regulated under HWMA/RCRA for container storage, miscellaneous treatment, and
17 miscellaneous storage, and WMF-1619 which is regulated under HWMA/RCRA for container
18 storage, miscellaneous treatment and miscellaneous storage. Five outdoor trailer container
19 storage areas are located near the treatment and storage units for storage of waste pending
20 return to AMWTP or shipment off-site. Cargo containers and boxes are stored outside near
21 WMF-1617 to support interim storage of non-liquid secondary waste streams that are shipped
22 off-site for disposal. At Outside Storage Area (OSA) located south-east WMF-1619, one
23 cargo container and 3 trailers are used for storage. Additionally, at the OSA located north of
24 WMF-1619, sixteen (90 cubic foot) boxes are used for storage. The WMF-1619 OSAs are
25 necessary to support interim storage of non-liquid secondary waste streams that are shipped
26 off-site for disposal and to support storage of waste that has been repackaged (treated/solid
27 waste) for return to AMWTP.

28 The physical conditions around these buildings are typical for the INL Site,
29 approximately 5,000 ft above mean sea level, as shown on the topographical map,
30 Exhibit B-3. The area is relatively flat and receives little rainfall. However, poor drainage
31 patterns can produce localized flooding that consists of shallow puddles that form near
32 buildings during periods of rapid snowmelt or heavy rainfall. Due to the lack of rainfall and
33 the poor quality of the surface soils, the site has little agricultural value. Wind patterns are

1 generally in a northeast/southwest axis, with some seasonal variability.

2 Exhibit B-4 shows the surface water drainage at the RWMC. There is no sanitary
3 waste system piping within the SDA. Comfort stations are provided for personnel working in
4 that area. There are no recreational areas present on or adjacent to the RWMC.

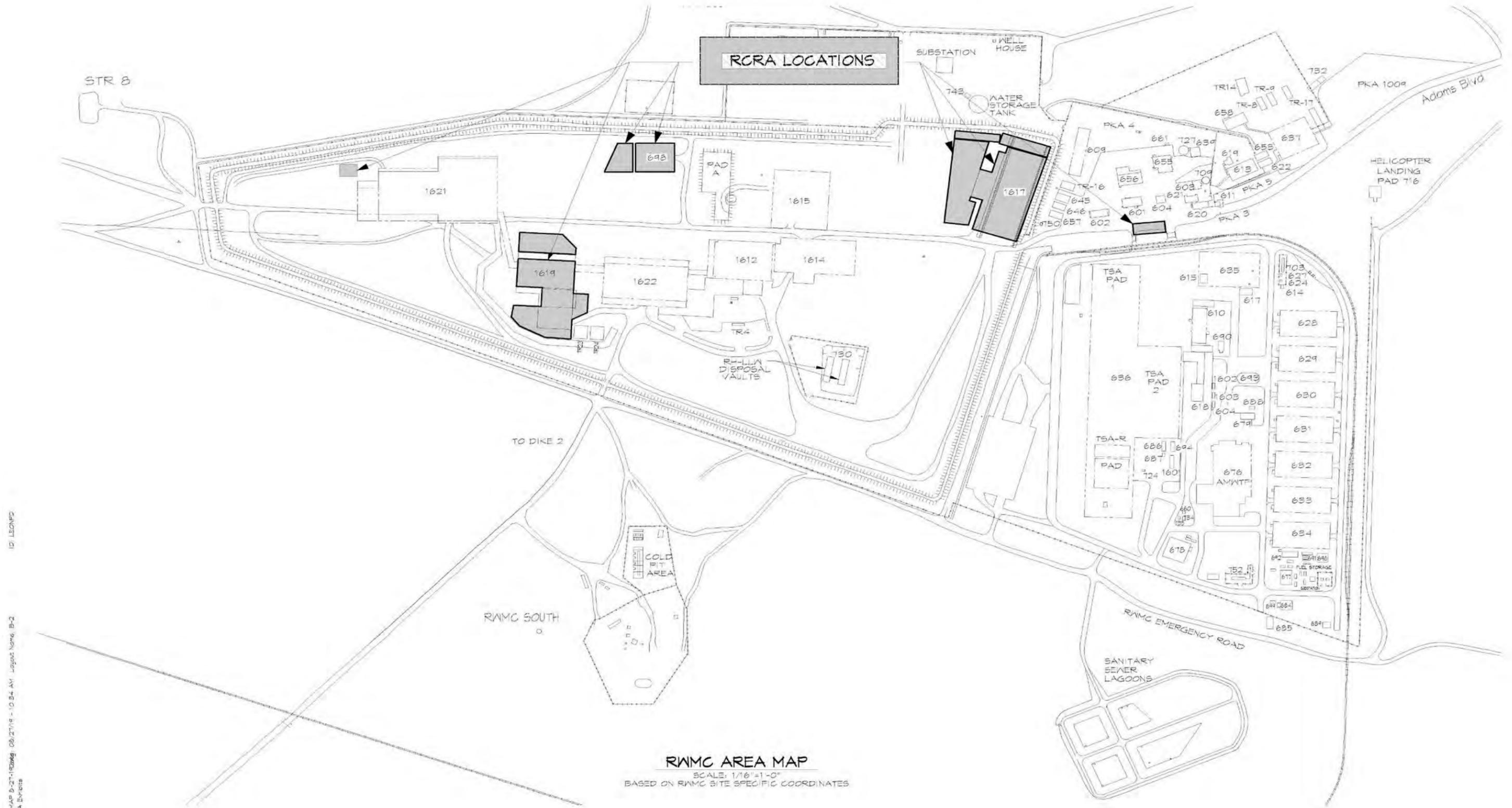


FIG. RWMC AREA RCRA MAP 8-27-18 08:27:18 - 10:54 AM Logon: Nemo, B-2
Path: \\RS-1828\RCRA\RCRA Events

EXHIBIT B-2. RWMC Area Map

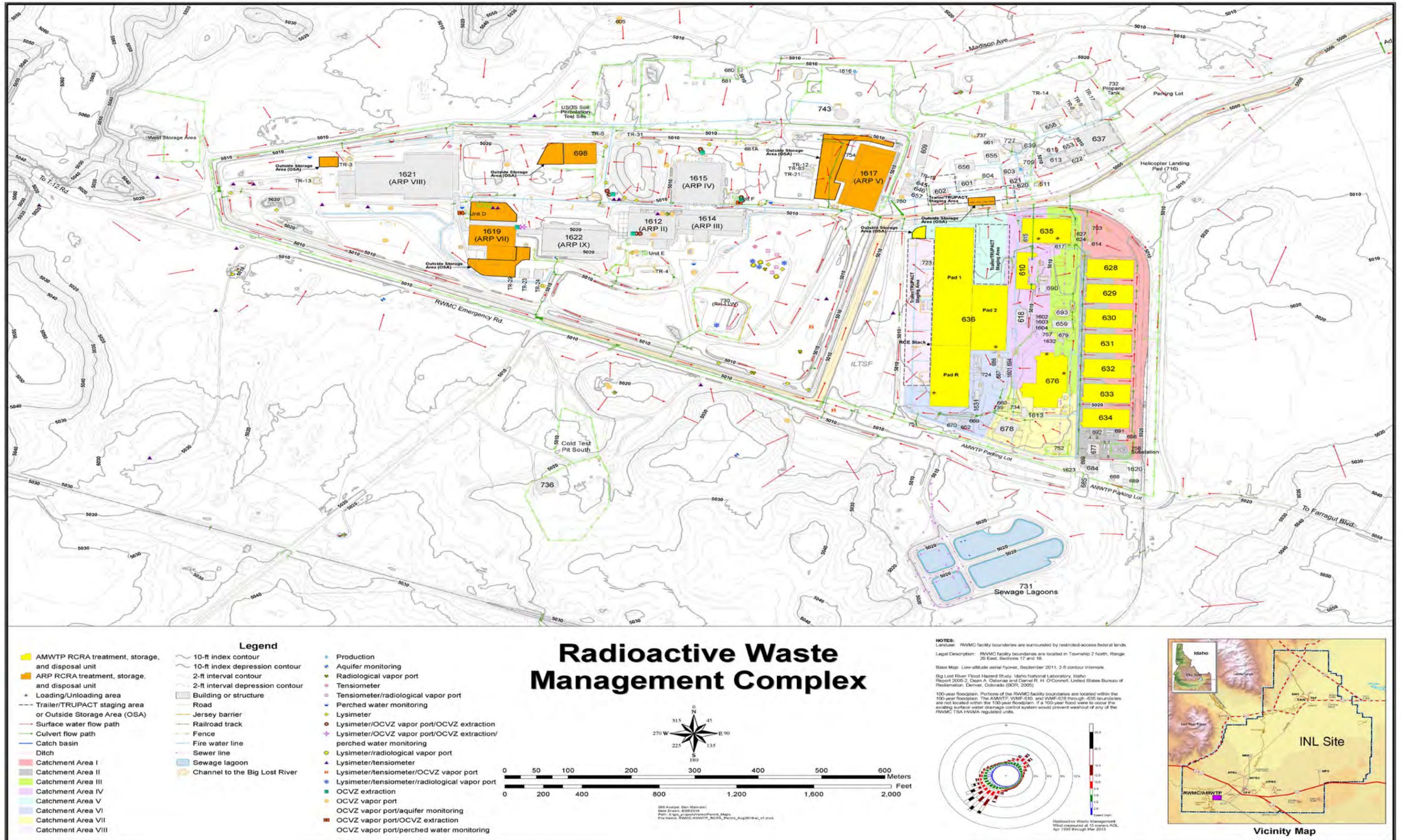


EXHIBIT B-3. Topographical map of the RWMC

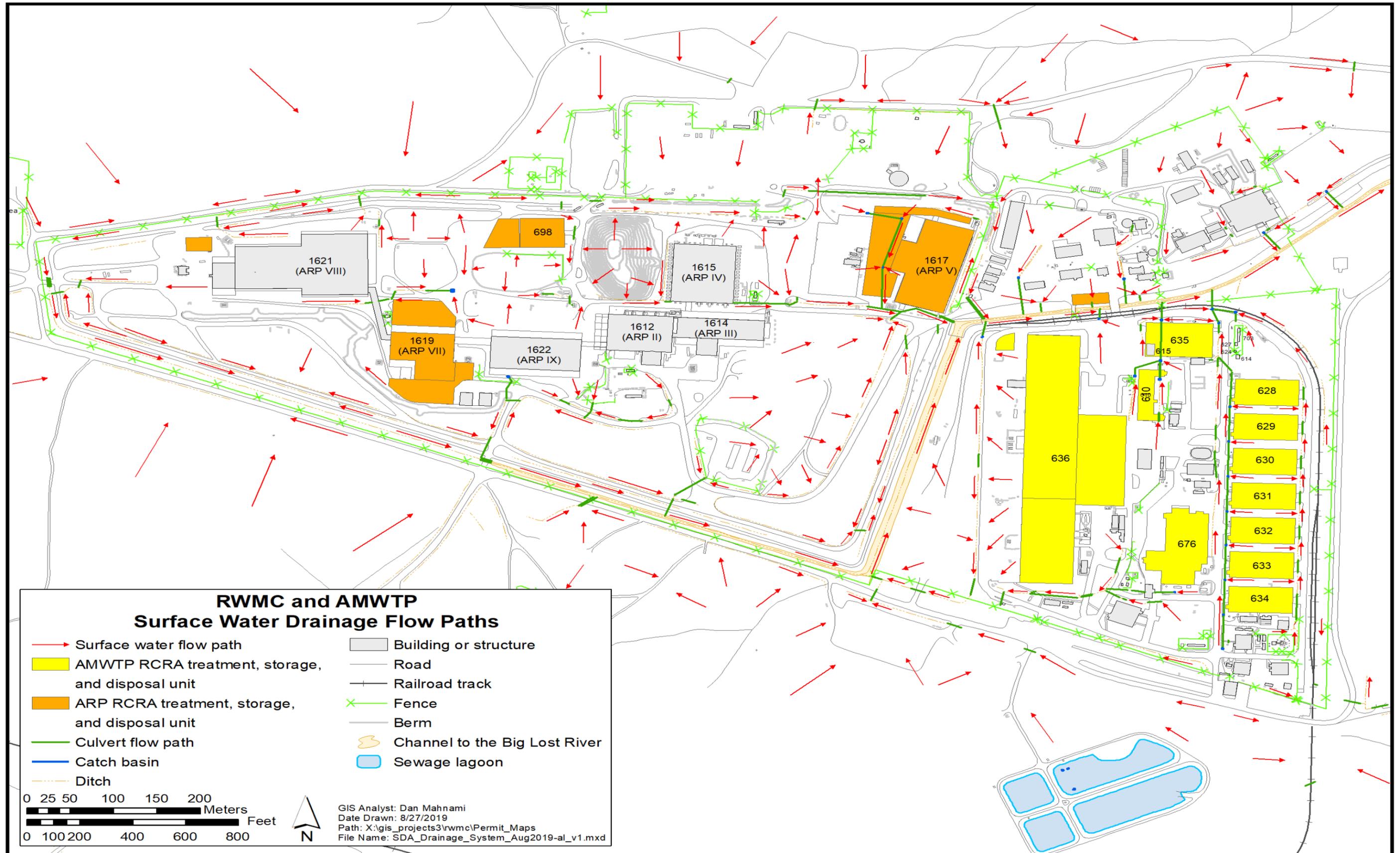


EXHIBIT B-4. RWMC Surface Water Drainage

RWMC Waste Handling Operations

Waste is received at the RWMC SDA from the AMWTP. Shipment of the waste to the RWMC SDA is the responsibility of the AMWTP. All waste must be packaged by the generator according to INL waste packaging requirements. Shipments must be approved by the RWMC prior to shipment to the RWMC SDA. All waste received at the RWMC must meet the applicable waste acceptance criteria contained in Attachment 1, Section D-1a(2) and Attachment 2, Section C.

Waste is received from the AMWTP and transferred to appropriate storage at WMF-698, WMF-1617 or WMF-1619. WMF-1617 and WMF-1619 provide areas for sorting and segregating waste, repackaging waste, mechanical processing (drum compacting) and performing absorbent addition. Trailer loading and unloading operations are completed at WMF-698, WMF-1617 and WMF-1619. Containers will remain on the transport trailers for no more than 24 hours at any given time during unloading operations.

Because the HWMA/RCRA-regulated wastes managed at the SDA are MW, references to radiological and radiochemical data are made throughout this Permit. Information on radiological and radiochemical characteristics is provided for informational purposes only, as HWMA/RCRA applies only to the chemical constituents of the MW. TSCA-regulated wastes and CERCLA waste stored at the TSA are not addressed in this Permit as they are not subject to HWMA/RCRA regulation.

WMF-698

Storage Enclosure Building WMF-698 is an existing building that was established to store CERCLA generated waste from the ongoing ARP operations. WMF-698 is a tension-membrane building, measuring 130 ft x 160 ft with a 20-ft-minimum interior clearance at the eaves. The building is located at the RWMC SDA, north of Pit 4 between Pad A and Pit 3. Exhibit B-5 presents a cutaway view of Building WMF-698.

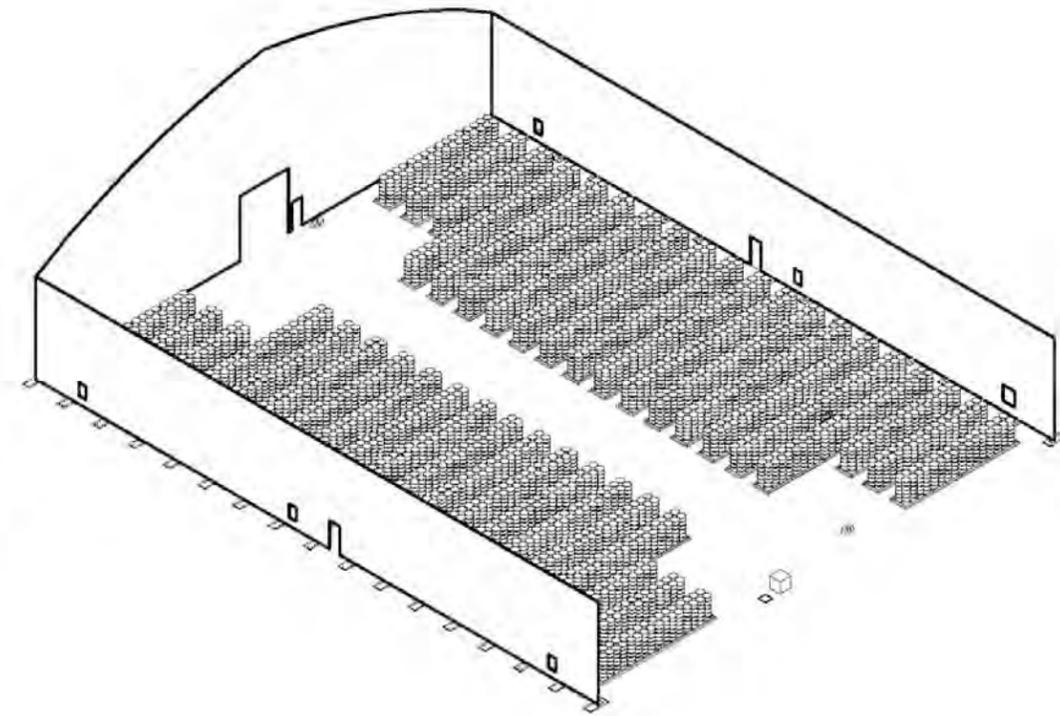
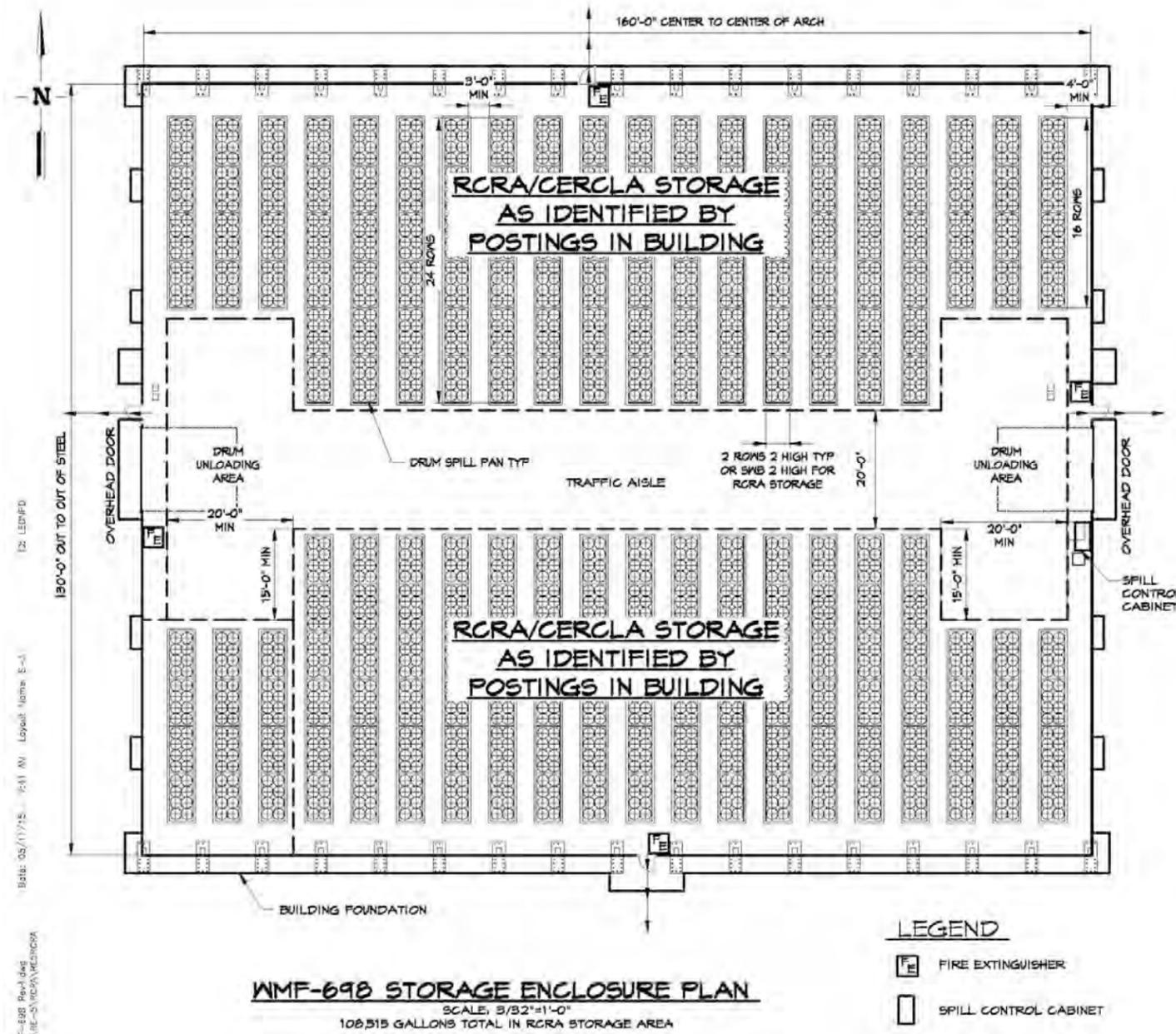
WMF-698 is constructed of a prefabricated steel frame covered with an outer fabric membrane. The fabric membrane meets NFPA 701 standards for fire resistance. The membrane meets the flame-resistant requirements of the IBC. The structural frame is designed to support seismic, snow, and wind loads in accordance with the applicable loading requirements. An anchoring system is provided to resist the horizontal or uplift forces imposed by seismic and

1 wind loads. The perimeter foundation frame sits on existing grade, leveled to obtain a weather
2 seal. The interior floor consists of a concrete slab. Secondary containment within WMF-698 is
3 provided by drum storage secondary containment pans. The 4'-2" by 8'-2" by 7" pan is
4 constructed of 1/8" carbon steel, all corners and seams are seal welded. A support grate to
5 elevate the drums is also included. The capacity of the drum storage secondary containment pans
6 is 149 gallons, which provides adequate capacity for the storage of sixteen drums (2-wide, 2-
7 high, 4-long). A metal warming hut is located inside the east entrance of WMF-698. The hut
8 contains an electric heater that provides personnel working in the area a location to warm up.
9 Mechanical and electrical equipment supporting WMF-698 may be housed external to the
10 enclosure. Drawings for WMF-698 are located in Book 3B, Appendix 1 of this Permit.

11 Ventilation for WMF-698 is provided by a draw-through system to prevent the
12 accumulation of volatile organic compounds (VOCs). Dust filters are installed at various
13 locations in the walls to filter the air drawn into the enclosure. The exhaust is not filtered.

14 Traditional fixed lighting is installed to provide adequate illumination for operations such
15 as waste container transport, storage, and inspection. The lighting is fastened to the metal
16 framework or located on stands. The lighting is supplied with flexible cable. A limited number of
17 receptacles are positioned within WMF-698 to support operations and maintenance activities.
18 Emergency lighting is provided as required by NFPA 101.

19 Electrical power is supplied from a pad-mounted transformer at the northeast corner of
20 the SDA. This transformer supports lighting, ventilation, and a limited number of receptacles that
21 are positioned within the enclosure to support operations and maintenance. Lightning protection
22 meets the applicable provisions of NFPA 780.



3D VIEW

Date: 02/11/15 7:51 AM Layout: Name: E-3
 File: WMF-698 Rev.dwg
 Path: L:\18-5\1805\180500A

EXHIBIT B-5. Building WMF-698 Storage Enclosure Plan

WMF-1617

1
2 Building WMF-1617 is an existing building that was established to excavate and
3 repackage CERCLA generated waste as part of the ARP operations. WMF-1617 is a tension-
4 membrane building (referred to as a Retrieval Enclosure) that covers the exhumation footprint in
5 Pit 9. This enclosure measures approximately 380 ft x 165 ft and 53 ft in height at the tallest
6 point. WMF-1617 housed the excavation, waste retrieval, waste packaging, sampling,
7 decontamination, vehicle service, and personnel ingress/egress for the remediation of Pit 9 under
8 CERCLA. Exhibits B-6 and B-7 provide schematics of WMF-1617. WMF-1617 has an
9 attached air lock (Airlock 5) that is used for drum packaging and container storage, and a
10 service-bay to support drum compacting, equipment maintenance, and radiological control
11 support areas.

12 The Retrieval Enclosure provides weather protection for year-round operations. The
13 physical boundary of the fabric structure affords a barrier to the spread of radioactive
14 contamination. The Retrieval Enclosures have sufficient space and interior height to house
15 excavator operations and waste container movements.

16 The Retrieval Enclosure includes the following systems: structure frame; membrane
17 covering (with inner and outer fabric enclosing an insulating layer); exhaust ventilation
18 (including area-based emissions monitoring, high-efficiency particulate air (HEPA) filters, and
19 supporting electrical systems); propane heating system (and associated piping and equipment);
20 and a fire detection and alarm system.

21 The fabric membrane is insulated and meets National Fire Protection Association
22 (NFPA) 701 standards for fire resistance. The membrane material for the Retrieval Enclosure
23 structure is a polyvinyl chloride (PVC)-impregnated textile. The PVC is formulated with
24 flame-resistant compounds. The fabric material meets applicable International Building Code
25 (IBC) flame-spread performance criteria for a limited combustible material.

26 WMF-1617 has steel trusses that attach to a cast-in place foundation and utilizes piles
27 driven to bedrock to stabilize the foundation. WMF-1617 is designed to withstand seismic,
28 snow, and wind loads in accordance with the applicable requirements. Drawings for WMF-1617
29 are located in Book 3B, Appendix 1 of this Permit.

1 HEPA-filtered exhaust ventilation is provided for WMF-1617 and the negative pressure
2 induces ventilation through the attached Airlock 5. The exhaust ducts and fans are located to
3 draw air from the least contaminated areas into the most potentially contaminated areas. Fixed
4 filter air samplers are located around the perimeter of the building and continuous air monitors
5 (CAMs) with alarms are also provided for each discharge path (local filter/fan exhaust) to
6 monitor for airborne radioactivity. Radiological control technicians (RCTs) routinely count the
7 perimeter sampler filters for radioactive contamination. If airborne radiation above normal
8 background levels is detected, the results are evaluated and remedial actions are taken as
9 appropriate to minimize the spread of contamination and to ensure operational control, worker
10 protection, and environmental protection. Two vestibules have been added to the west side of
11 WMF-1617 to assist in controlling the change in differential pressure in the building when the
12 doors are opened. Additionally, one of the vestibules on the west side of WMF-1617 was not
13 large enough to support personnel entry and exit during WMF-1617 recovery operations.
14 Operations removed the existing vestibule and replaced it with a larger vestibule. The larger
15 vestibule is attached to WMF-1617 with fabric tape. The vestibule was added to the airlock
16 in 2013 and is not part of the RCRA-permitted waste process. This change resulted in a
17 revision to permit drawing (DWG-761193), WMF-1617 Building Elevations, See Book 3B,
18 Appendix 1 of this Permit.

19 The Retrieval Enclosure (Retrieval Area and air lock) is provided with direct-fired, draw-
20 through, propane fired gas furnaces. To the extent practical, the heating systems for the retrieval
21 area is designed to maintain 32°F at an ambient temperature of -20°F to limit wear and tear on
22 equipment caused by extreme cold weather and are not intended for human comfort. The
23 installation of the heating systems is in accordance with the applicable NFPA regulations. These
24 systems are operated independently of the HEPA-filtered exhaust, except for an interlock that
25 shuts the inlet dampers when facility exhaust flow is interrupted (back flow through the outdoor
26 intake is prevented when the system is shut down). Depending on the operating configuration of
27 the system or possible lower ambient temperatures, interior temperatures below freezing can
28 occur. Such conditions are monitored, and actions are taken as needed (such as allowing waste to
29 warm in the airlock area prior to visual inspection for free liquids).

30 WMF-1617 fire protection is provided through an underground fire water distribution
31 system that was installed within the SDA. The system was designed, installed, and tested in
32 accordance with the National Fire Protection Association (NFPA) 20, 22, and 24. The system

1 was designed to supply fire water at a minimum of 1,500 gpm at 20 psi. There are adequate fire
2 hydrants located at WMF-1617.

3 WMF-1617 has fire alarm and occupant notification systems to notify occupants and the
4 INL Fire Department in case of emergency. There are traditional smoke and heat detectors
5 installed throughout the airlock. Linear heat sensor cable is installed in the Drum Packaging
6 Stations (DPSs) to actuate the

1 dry chemical suppression systems. A listed automatic video fire/smoke detection system is
2 provided in the Retrieval Enclosure. The system provides primary detection during non-
3 operational periods.

4 Operations personnel have the primary responsibility for fire detection in the Retrieval
5 Enclosure during operational periods. The video fire/smoke detection system is taken out of
6 service during normal operations as necessary to prevent spurious alarms and placed back in
7 service on the backshift. Other accepted means of fire detection, should the video fire/smoke
8 detection system be impaired, include monitoring of fire watch cameras in the control room, at
9 the INL Fire Alarm Center, and/or a manned two-hour fire watch.

10 WMF-1617 has no fixed building fire suppression systems. There are automatic dry-
11 chemical fire suppression systems installed within each Drum Packaging Station and in the
12 mobile equipment to include the excavators, telehandlers, and front end loaders.

13 There are traditional portable fire extinguishers located throughout WMF-1617 as shown
14 on Exhibit G-2 in Attachment 7.

15 All fire protection systems and equipment are inspected, tested, and maintained in
16 accordance with NFPA codes/standards and the inspection, testing, and maintenance equivalency
17 as approved by the Department of Energy Idaho Falls Field Office.

18 The WMF-1617 structure is attached to the ARP V Retrieval Area. The airlock is
19 separated from the Retrieval Area and provides a buffer area for workers to package retrieved
20 waste, perform decontamination activities, service vehicles, and provide for personal protective
21 equipment (PPE) change-out. The air lock is an insulated, tensioned-membrane, fabric structure.
22 The air lock meets the same natural phenomena requirements as the main Retrieval Area. The
23 fabric membranes are attached to a steel truss structure which is attached to a concrete slab and
24 foundation. The interior rooms of the air lock are constructed independently of the tensioned-
25 membrane structure. Interior wall and ceiling surfaces are lined with galvanized metal, except in
26 contamination areas where stainless steel is used. The air lock is equipped with supplementary
27 air heating, ventilating, and air conditioning (HVAC) to supply conditioned air for human
28 comfort. Ventilation is drawn from the occupied, uncontaminated area of the air locks, through

1 contaminated areas, into the Retrieval Area, and out through HEPA filters in the Retrieval Area
2 by exhaust fans. This ventilation flow path is designed to minimize the spread of contamination.
3 Ventilation flow that is adequate for contamination control is maintained in occupied areas
4 during facility operations.

5 The air lock has a partitioned service bay (Rooms 101, 102, and 103) used for servicing
6 the equipment and a contamination reduction corridor to allow vehicle operators to enter and exit
7 their vehicles in a controlled, low-contamination area. Rooms 101 and 102 are attached to Room
8 103 and are radiological support rooms for donning and doffing PPE and provide access and
9 egress to the Retrieval Area. Storage (S01) of secondary wastes occurs in these rooms. Room
10 103 is also used for miscellaneous treatment activities (X02) and for mechanical processing
11 treatment activities (X99). These support structures are included within the descriptive title “air
12 locks” and are considered to be part of the Retrieval Enclosures, but not part of the Retrieval
13 Area. Pass-through boxes are installed in the walls for transferring contamination smears and
14 small equipment and tools between the air locks and the clean area. Overhead equipment doors
15 allow equipment access into the air lock from the Retrieval Area and into the air lock from
16 outside. Dust suppressant storage and fill, diesel fueling, water, electrical cords, breathing-air
17 manifolds, and breathing-air fill systems are installed to support operations. The air lock also has
18 an operation corridor that houses support equipment (tanks, pumps, and other equipment).

19 Dust suppression liquid is applied on the soil travel paths within the WMF-1617 building
20 to minimize airborne dust/contamination from previous CERCLA operations. If not controlled,
21 the vehicle traffic creates significant dust and can affect the building ventilation system and
22 worker safety from airborne contamination. Commercially-available, non-hazardous dust
23 suppression liquid (e.g., water, WetJet, Durasoil) is applied on an as-needed basis. Application of
24 dust suppression liquid may result in minor puddling of the liquid, which is allowed to absorb
25 into surface soils.

26 **Room 105 Drum Packaging in WMF-1617**

27 The WMF-1617 airlock contains a drum packaging room (Room 105 which is entered
28 through Room 106 Utility Area), with four DPSs that are used to reduce contamination exposure
29 during drum packaging (X99), weighing, and staging activities. Double doors provide access to
30 drum packaging rooms.

1 Room 105 is also used for container storage (S01) of wastes. The DPSs provide a means for
2 workers to safely package waste materials out of the Retrieval Area and into clean 55-gal drums.
3 The DPSs provide contamination control and serve as radiological workstations.

4 A structural steel framework anchored to the air lock floor supports each packaging
5 station. The panels, penetrations, interfaces, and ports are sealed and secured to the frame or
6 panels. Each station has multiple glove ports and scratch-resistant Lexan windows. Slides are
7 installed under the trolley rails to funnel materials (predominantly soil) to the side of each DPS
8 entrance to allow mechanical removal of the fallen material. Stainless steel sheeting covers the
9 concrete slab inside the Retrieval Area under the trolley rails. Airflow through each station is
10 induced by the Retrieval Enclosure exhaust ventilation system to ensure contaminated air is
11 drawn away from the packaging station worker.

12 **Room 104 Equipment Airlock in WMF-1617**

13 The room 104 Equipment Airlock, located in WMF-1617 (reference drawing 761194 –
14 see Book 3B, Appendix 1 of this Permit) is used to transfer containers into the radiologically-
15 controlled Retrieval Area (RA) for processing from storage in WMF-698, or unloaded directly
16 from the transport trailer from AMWTP. The equipment airlock is an area that is approximately
17 20 ft wide X 40 ft in length. The steel-framed airlock is accessed by 16 ft X 16 ft doors on each
18 end to provide for equipment egress and has a reinforced concrete floor. Drums would normally
19 be introduced into the area using a manual drum hauler or a telehandler (forklift) with extending
20 boom and drum handling attachment.

21 Typically, the airlock is used as a transfer bay to support same-day transfer of wastes into
22 the RA; however, containers may be stored in the airlock area for a longer period based on
23 operational need or to accommodate unusual circumstances (e.g., loss of commercial power and
24 operational shutdown). Secondary containment within Room 104 is provided for containers that
25 remain in the airlock for more than 1 shift by storage secondary containment pans. Secondary
26 containment for drums is provided by a 4'-2" by 8'-2" by 7" pan that is constructed of 1/8"
27 carbon steel, with all corners and seams seal welded. A support grate to elevate the drums is also
28 included. The capacity of the drum storage secondary containment pans is 149 gallons, which
29 provides adequate capacity for the storage of sixteen drums. The secondary containment storage
30 pans for boxes are 12' x 9'-8" x 12" pans made of 1/4" thick carbon steel plate and have a frame
31 and bar-grate platform inside. The volume of the pan is 862 gallons, which allows for up to four

1 boxes. The box secondary containment pan is also used for the storage of oversized boxes, if
2 necessary, in Room 104. The sludge waste stream drums to be processed in WMF-1617 may be
3 packaged in waste boxes when received. The volume of liquid within the box is based on estimates
4 using real time radiography of the waste box and is less than 10% of the overall container volumes
5 (e.g., the average volume of a fiberglass reinforced plywood box is 840 gallons). Boxes containing
6 liquid that are stored in Room 104 or in the retrieval area are stored on 9' by 9' by 0'6"
7 containment pans with a capacity of approximately 300 gallons. Boxes containing liquid that are in
8 the process area are stored within the 14' by 18' by 0'6" treatment containment pan with a capacity
9 of approximately 942 gallons. The capacities of the containment pans exceed the known volumes
10 of liquid in the sludge waste and 10% of the overall container volume, providing protective interim
11 storage of the sludge waste.

12 **Room 106 Utility Area in WMF-1617**

13 WMF-1617, Room 106 (Utility Area), (reference drawing 761194 – See Book 3B,
14 Appendix 1 of this Permit) is used to store drums that have been processed out of the drum
15 packaging stations before loading on a trailer for transfer back to the WMF-698 storage building
16 or return to AMWTP. The Utility Area is located in the front (west) portion of the WMF-1617
17 airlock and encompasses approximately 3,200 square ft. The Utility Area is accessed by a 14 ft X
18 14 ft metal door, a 16 ft X 16 ft metal door, and two personnel doors to provide for equipment and
19 personnel egress. The area has a reinforced concrete floor. Drums would be removed from the
20 DPS area using hand-operated drum handling equipment and removed from the Utility Area using
21 a forklift with a drum handling attachment.

22 The airlock is used to support interim storage of drums from the DPSs until a sufficient
23 quantity of drums is accumulated to support shipment to AMWTP or back to WMF-698. Drums
24 processed out of a DPS have had visual examination performed to verify removal of free liquids;
25 consequently, secondary containment will not generally be required. The area will also be used to
26 receive drums and boxes directly from AMWTP (i.e., if storage in WMF-698 does not occur). In
27 this case, the containers would require storage on secondary containment pans for secondary
28 containment before entry into the equipment airlock and processing in the retrieval area.

Outside Storage Areas

Storage of drums that have completed treatment in WMF-1617 or WMF-1619, or drums/boxes of secondary waste that are ready for transfer back to AMWTP or shipment off-site, may be stored on trailers located next to the treatment units, or on a trailer located near WMF-1621 to support container assay. At the WMF-1621 outside storage area, drums that require segregation due to further nondestructive assay evaluation or radiological survey results may be stored on pallets. The containers will remain in these locations only until a full trailer is loaded for return to AMWTP or off-site, and the trailer is authorized for shipment. Since these containers have been through visual examination following the treatment process, there is no concern with liquids or prohibited items.

Storage Area for Secondary Wastes

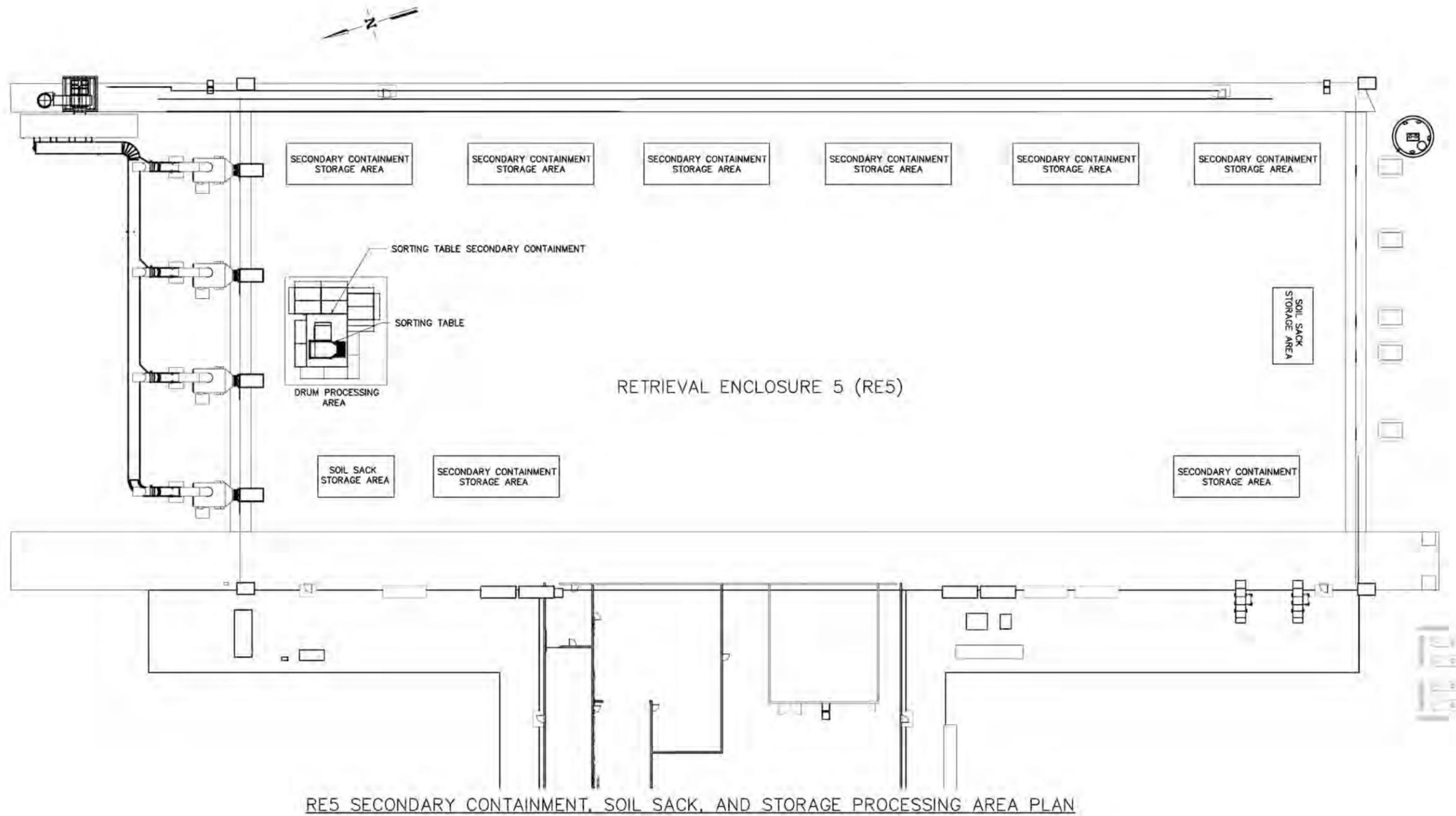
Secondary waste (e.g., drum carcasses/liners, PPE, plastic sheeting, filters, etc.) may be stored in WMF-698, WMF-1617 or WMF-1619, after packaging, and prior to transfer to AMWTP or to an off-site TSDf for disposal. Secondary waste in soil sacks may be stored in the Retrieval Areas in designated areas. Soil sacks are 42" x 42" x 42", made of polypropylene fabric with a double corrugated cardboard frame. The sacks stand upright and fully open. The soil sacks are used only in the Retrieval Area to collect non-liquid secondary waste prior to repackaging into containers for disposition to AMWTP or off-site. In addition, outside storage of non-liquid secondary waste in cargo containers and boxes occurs in the outside storage area adjacent to WMF-1617 and north of WMF-1619 as shown in Exhibit B-2. Temporary accumulation areas (i.e., less than 90-day storage areas) may also be established for storage of secondary waste streams.

Storage of Prohibited Items

WIPP prohibited items (e.g., liquids, etc.) will normally be treated on the sorting table as part of the repackaging process. If removal from the waste is required, prohibited items may be staged within the retrieval area in waste trays pending packaging into a new container via the DPS. Once packaged through a DPS, prohibited items are stored in permitted storage areas, separated by distance or barrier as needed depending upon waste characteristics, before being returned to AMWTP. The discovery of prohibited items that must be removed from the waste stream are reported to DEQ on a semi-annual basis.

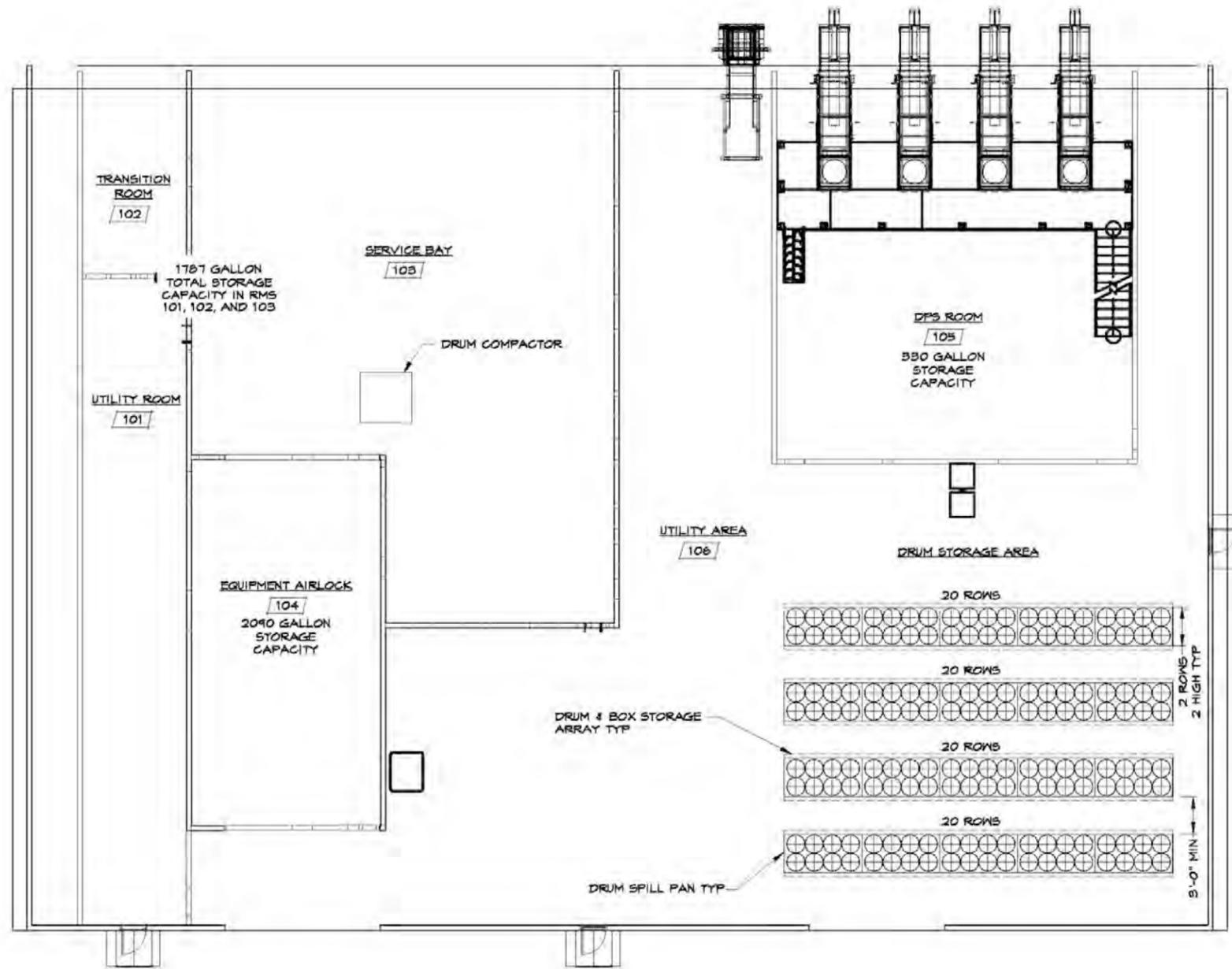
Decontamination of Equipment

1
2 It is a recognized situation that within the WMF-1617 and WMF-1619 waste exhumation
3 facilities, contaminated soils are present from previous CERCLA operations. Periodic equipment
4 decontamination may be performed within the retrieval area to achieve acceptable radiological
5 conditions on the equipment for required maintenance. Any portion of the equipment (e.g.,
6 excavator, telehandler forklift, loader) that is contaminated with CERCLA materials, such as
7 contaminated soils, may require that the material be removed through spray washing, brushing, or
8 other means, and the associated wastes placed within the CERCLA contaminated area. Equipment
9 surfaces may also come in contact with RCRA waste (e.g., excavator bucket or thumb) and require
10 decontamination. Waste material is removed through spray washing, brushing, or other means. The
11 waste material is collected in the excavator secondary containment bucket, or other secondary
12 containment pan described in this permit. The excavator secondary containment bucket is a 7' by 4'
13 by 3" carbon steel container with a crossbar for the excavator to lift. Waste from decontamination of
14 RCRA contaminated equipment is contained within the bucket or secondary containment pan, and
15 then packaged out of the facility as RCRA waste or included in the waste stream destined for WIPP.



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EXHIBIT B-6. Schematic of WMF-1617

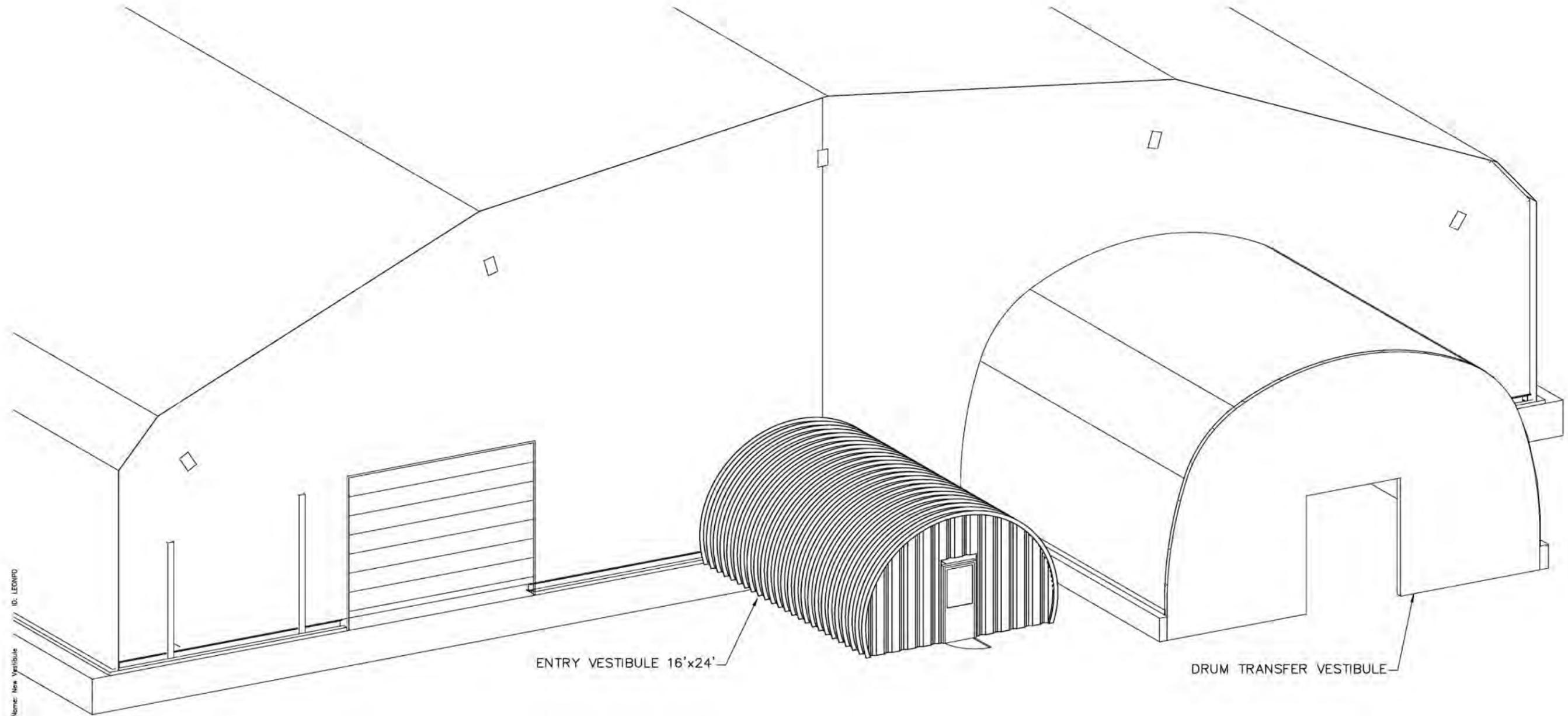


AIRLOCK 5 DRUM STORAGE PLAN

17600 GALLON CAPACITY IN STORAGE AREA
 2090 GALLON CAPACITY IN EQUIPMENT AIRLOCK
 1787 GALLON CAPACITY TOTAL IN ROOMS 101, 102, AND 103
 330 GALLON CAPACITY IN DPS ROOM

File: airlock5drumstorageplan.dwg
 Date: 11/17/13 - 10:48 AM Layout: Main Layout
 User: LEONARD

EXHIBIT B-7. Schematic of Airlock 5 Plan



WMF-1617 ENTRY VESTIBULE AND DRUM TRANSFER VESTIBULE

File: Entry Vestibule Rev 2.dwg Date: 09/10/19 - 12:26 PM Layout Name: New Vestibule
Path: L:\RE-5\RCRA\Sludge Drum Repackaging\Entry Vestibule ID: LEGNFD

WMF-1619

Building WMF-1619 is an existing building that was established to excavate and repackage CERCLA generated waste as part of the ARP operations. WMF-1619 is a tension-membrane building (referred to as a Retrieval Enclosure) that covers the western portion of Pit 10. This enclosure measures approximately 135 ft x 243 ft and 45 ft in height at the tallest point. WMF-1619 housed the excavation, waste retrieval, waste packaging, sampling, decontamination, vehicle service, and personnel ingress/egress for the remediation of Pit 10 under CERCLA. CERCLA transfer of waste or equipment through WMF-1619 is administratively controlled so that RCRA and CERCLA operations do not occur at the same time. Exhibits B-9, B-10, and B-11 provide schematics of WMF-1619. WMF-1619 has an attached air lock used for drum packaging and storage, a service-bay for mechanical treatment (drum compactor) and to support equipment maintenance, and radiological control support areas.

The Retrieval Enclosure provides weather protection for year-round operations. The physical boundary of the fabric structure affords a barrier to the spread of radioactive contamination. The Retrieval Enclosures have sufficient space and interior height to house excavator operations and waste container movements.

The Retrieval Enclosure includes the following systems: structure frame; membrane covering (with inner and outer fabric enclosing an insulating layer); exhaust ventilation (including area-based emissions monitoring, high-efficiency particulate air (HEPA) filters, and supporting electrical systems); propane heating system (and associated piping and equipment); and a fire detection and alarm system.

The fabric membrane is insulated and meets National Fire Protection Association (NFPA) 701 standards for fire resistance. The membrane material for the Retrieval Enclosure structure is a polyvinyl chloride (PVC)-impregnated textile. The PVC is formulated with flame-resistant compounds. The fabric material meets applicable International Building Code (IBC) flame-spread performance criteria for a limited combustible material.

WMF-1619 has steel trusses that attach to a cast-in place foundation and utilizes piles driven to bedrock to stabilize the foundation. WMF-1619 is designed to withstand seismic, snow, and wind loads in accordance with the applicable requirements. Drawings for WMF-1619 are located in Book 3B, Appendix 1 of this Permit.

1 HEPA-filtered exhaust ventilation is provided for WMF-1619 and the negative pressure
2 induces ventilation through the attached Airlock 6. The exhaust ducts and fans are located to draw
3 air from the least contaminated areas into the most potentially contaminated areas. Fixed filter air
4 samplers are located around the perimeter of the building and CAMs with alarms are also provided
5 for each discharge path (local filter/fan exhaust) to monitor for airborne radioactivity. RCTs
6 routinely count the perimeter sampler filters for radioactive contamination. If airborne radiation
7 above normal background levels is detected, the results are evaluated and remedial actions are taken
8 as appropriate to minimize the spread of contamination and to ensure operational control, worker
9 protection, and environmental protection. Two personnel vestibules are located on the south side of
10 WMF-1619 to assist in controlling the change in differential pressure in the building when the
11 airlock doors are opened.

12 Although the WMF-1619 Retrieval Area is connected to WMF-1621 (ARP VIII) and ARP
13 IX to allow the passage of equipment and CERCLA wastes, it is isolated (closed doors) during
14 RCRA operations activities to prevent cross-contamination.

15 The Retrieval Enclosure (Retrieval Area and air lock) is provided with direct-fired, draw-
16 through, propane fired gas furnaces. To the extent practical, the heating systems for the retrieval
17 area is designed to maintain 32°F at an ambient temperature of -20°F to limit wear and tear on
18 equipment caused by extreme cold weather and are not intended for human comfort. The
19 installation of the heating systems is in accordance with the applicable NFPA regulations. These
20 systems are operated independently of the HEPA-filtered exhaust, except for an interlock that shuts
21 the inlet dampers when facility exhaust flow is interrupted (back flow through the outdoor intake is
22 prevented when the system is shut down). Depending on the operating configuration of the system
23 or possible lower ambient temperatures, interior temperatures below freezing can occur. Such
24 conditions are monitored, and actions are taken as needed (such as allowing waste to warm in the
25 airlock area prior to visual inspection for free liquids).

26 WMF-1619 fire protection is provided through an underground fire water distribution
27 system that was installed within the SDA. The system was designed, installed, and tested in
28 accordance with the National Fire Protection Association (NFPA) 20, 22, and 24. The system was
29 designed to supply fire water at a minimum of 1,500 gpm at 20 psi. There are adequate fire
30 hydrants located at WMF-1619.

1 WMF-1619 has fire alarm and occupant notification systems to notify occupants and the
2 INL Fire Department in case of emergency. There are traditional smoke and heat detectors installed
3 throughout the airlock. Linear heat sensor cable is installed in the DPS to actuate the dry chemical
4 suppression systems. A listed automatic video fire/smoke detection system is provided in the
5 Retrieval Enclosure. The system provides primary detection during non-operational periods.

6 Operations personnel have the primary responsibility for fire detection in the Retrieval
7 Enclosure during operational periods. The video fire/smoke detection system is taken out of service
8 during normal operations as necessary to prevent spurious alarms and placed back in service on the
9 backshift. Other accepted means of fire detection, should the video fire/smoke detection system be
10 impaired, include monitoring of fire watch cameras in the control room, at the INL Fire Alarm
11 Center, and/or a manned two-hour fire watch.

12 WMF-1619 has no fixed building fire suppression systems. There are automatic dry-
13 chemical fire suppression systems installed within each DPS and in the mobile equipment to include
14 the excavators, telehandlers, and front-end loaders.

15 There are traditional portable fire extinguishers located throughout WMF-1619 as shown on
16 Exhibit G-3 in Attachment 7.

17 All fire protection systems and equipment are inspected, tested, and maintained in
18 accordance with NFPA codes/standards and the inspection, testing, and maintenance equivalency as
19 approved by the Department of Energy Idaho Falls Field Office.

20 The WMF-1619 (ARP VII) airlock structure (Airlock 6) is attached to the Retrieval Area.
21 The airlock is separated from the Retrieval Area and provides a buffer area for workers to package
22 retrieved waste and provides waste storage and treatment areas. Additionally, the airlock area
23 allows for workers to perform decontamination activities, service vehicles, and provide for PPE
24 change-out. The air lock is an insulated, tensioned-membrane, fabric structure. The air lock meets
25 the same natural phenomena requirements as the main Retrieval Area. The fabric membranes are
26 attached to a steel truss structure which is attached to a concrete slab and foundation. The interior
27 rooms of the air lock are constructed independently of the tensioned-membrane structure. Interior
28 wall and ceiling surfaces are lined with galvanized metal, except in contamination areas where
29 stainless steel is used. The air lock is equipped with supplementary air heating, ventilating, and air
30 conditioning (HVAC) to supply conditioned air for human comfort. Ventilation is drawn from the
31 occupied, uncontaminated area of the air locks, through

1 contaminated areas, into the Retrieval Area, and out through HEPA filters in the Retrieval Area by
2 exhaust fans. This ventilation flow path is designed to minimize the spread of contamination.
3 Ventilation flow that is adequate for contamination control is maintained in occupied areas during
4 facility operations.

5 The airlock has a partitioned service bay (Room 101-transition room, Room 102-utility
6 room, and Room 103-service bay) used for servicing the equipment and a contamination reduction
7 corridor to allow vehicle operators to enter and exit their vehicles in a controlled, low-
8 contamination area. Rooms 101 and 102 are attached to Room 103 and are radiological support
9 rooms for donning and doffing PPE and provide access and egress to the Retrieval Area. Room 103
10 may also be used for miscellaneous treatment activities and for mechanical processing treatment
11 activities (drum crushing). Storage of secondary wastes may also occur in these rooms. These
12 support structures are included within the descriptive title “airlocks” and are considered to be part of
13 the Retrieval Enclosure, but not part of the Retrieval Area. Pass-through boxes are installed in the
14 walls for transferring contamination smears and small equipment and tools between the air locks
15 and the clean area. Overhead equipment doors allow equipment access into the air lock from the
16 Retrieval Area and into the airlock from outside. Dust suppressant storage and fill, diesel fueling,
17 water, electrical cords, breathing-air manifolds, and breathing-air fill systems are installed to
18 support operations. The airlock also has an operation corridor that houses support equipment (tanks,
19 pumps, and other equipment).

20 Dust suppression liquid is applied on the soil travel paths within the WMF-1619 building to
21 minimize airborne dust/contamination from previous CERCLA operations. If not controlled, the
22 vehicle traffic creates significant dust and can affect the facility ventilation system and worker
23 safety from airborne contamination. Commercially-available, non-hazardous dust suppression
24 liquid (e.g., water, WetJet, Durasoil) is applied on an as-needed basis. Application of dust
25 suppression liquid may result in minor puddling of the liquid which is allowed to absorb into
26 surface soils.

27 **Room 105 Drum Packaging in WMF-1619**

28 The WMF-1619 airlock contains a drum packaging room (Room 105 which is entered
29 through Room 106 Utility Area), with four DPSs that are used to reduce contamination exposure
30 during drum packaging, weighing, and staging activities. This room is also used for container
31 storage of wastes. Double doors provide access to the drum packaging room.

1 DPSs provide a means for workers to safely package waste materials out of the Retrieval
2 Area and into clean 55-gal drums. The DPSs provide contamination control and serve as
3 radiological workstations.

4 A structural steel framework anchored to the air lock floor supports each packaging station.
5 The panels, penetrations, interfaces, and ports are sealed and secured to the frame or panels. Each
6 station has multiple glove ports and scratch-resistant Lexan windows. Slides are installed under the
7 trolley rails to funnel materials (predominantly soil) to the side of each DPS entrance to allow
8 mechanical removal of the fallen material. Stainless steel sheeting covers the concrete slab inside
9 the Retrieval Area under the trolley rails. Airflow through each station is induced by the Retrieval
10 Enclosure exhaust ventilation system to ensure contaminated air is drawn away from the packaging
11 station worker.

12 **Room 104 Equipment Airlock in WMF-1619**

13 The Room 104 Equipment Airlock, located in WMF-1619, is used to transfer containers into
14 the radiologically-controlled Retrieval Area (RA) for processing. The room is also used for
15 container storage of wastes. The equipment airlock is an area that is approximately 20 ft wide X 38
16 ft in length. The steel-framed airlock is accessed by 16 ft X 16 ft doors on each end to provide for
17 equipment egress and has a reinforced concrete floor. Containers will normally be introduced into
18 the area using a telehandler (forklift) or crane.

19 Typically, the airlock is used as a transfer bay to support same-day transfer of wastes into
20 the RA; however, containers may be stored in the airlock area for a longer period based on
21 operational need or to accommodate unusual circumstances (e.g., loss of commercial power and
22 operational shutdown). Secondary containment within Room 104 is provided for containers that
23 remain in the airlock for more than 1 shift by storage secondary containment pans. Secondary
24 containment for drums is provided by a 4'-2" by 8'-2" by 7" pan that is constructed of 1/8" carbon
25 steel, with all corners and seams seal welded. A support grate to elevate the drums is also included.
26 The capacity of the drum storage secondary containment pans is 149 gallons, which provides
27 adequate capacity for the storage of sixteen drums. The secondary containment storage pans for
28 boxes are 12' x 9'-8" x 12" pans made of 1/4" thick carbon steel plate and have a frame and bar-
29 grate platform inside. The volume of the pan is 862 gallons, which allows for storage of up to four
30 boxes. The box secondary containment pan is also used for the storage of oversized boxes, if
31 necessary, in Room 104.

1 The sludge (SRP) waste stream drums processed in WMF-1619 may be packaged in waste
2 boxes when received. The volume of liquid within the box is based on estimates using real time
3 radiography of the waste box and is less than 10% of the overall container volumes (e.g., the
4 average volume of a fiberglass reinforced plywood box is 840 gallons). Boxes containing liquid that
5 are stored in Room 104 or in the retrieval area are stored on 9' by 9' by 0'6" containment pans with
6 a capacity of approximately 300 gallons. Boxes containing liquid that are in the process area are
7 stored within the 14' by 18' by 0'6" treatment containment pan with a capacity of approximately
8 942 gallons. The capacities of the containment pans exceed the known volumes of liquid in the
9 sludge waste and 10% of the overall container volume, providing protective interim storage of the
10 sludge waste.

11 The debris (DRP) waste stream contains limited volumes of liquid based on estimates using
12 real time radiography of the debris containers. The debris waste stream is predominantly solid
13 debris waste with liquid volumes that are less than 10% of the overall container volumes (e.g., the
14 average volume of a fiberglass reinforced plywood box is 840 gallons). Boxes containing liquid that
15 are stored in Room 104 or in the retrieval area are stored on 9'0" by 6'0" by 0'6" box transfer pans,
16 with a containment capacity of approximately 200 gallons, or on 9'-0" by 9'-0" by 0'6"
17 containment pans with a capacity of approximately 300 gallons. Boxes containing liquid that are in
18 the process area are stored on the box transfer pan within a 12' by 12' by 10" treatment containment
19 pan with a capacity of approximately 900 gallons. The capacities of the containment pans exceed
20 the known volumes of liquid in the debris waste and 10% of the overall container volume,
21 providing protective interim storage of the debris waste.

22 **Room 106 Utility Area in WMF-1619**

23 WMF-1619, Room 106 (Utility Area) is used to store containers that have been sent from
24 AMWTP and off-loaded from the trailer prior to processing, drums that have been processed out of
25 the drum packaging stations, or boxes of waste that have been repackaged/decontaminated before
26 loading on a trailer for return to AMWTP. The Utility Area is located in the front (south) portion of
27 the WMF-1619 airlock. The Utility Area is accessed by two 14 ft X 14 ft metal doors, a 16 ft X 16
28 ft metal door, and four personnel doors to provide for equipment and personnel egress. The area
29 has a reinforced concrete floor. Drums are removed from the DPS area using hand-operated drum
30 handling equipment and removed from the Utility Area using a forklift with a drum handling
31 attachment.

1 The airlock is used to support interim storage of waste boxes from the retrieval area or
2 drums from the DPSs until sufficient quantity of containers is accumulated to support shipment to
3 AMWTP. Boxes processed in the retrieval area and drums processed out of a DPS have had visual
4 examination performed to verify removal of free liquids; consequently, secondary containment will
5 not generally be required. The area will also be used to receive drums and boxes directly from
6 AMWTP (i.e., if storage in WMF-698 does not occur). In this case, the containers would require
7 storage on secondary containment pans before entry into the equipment airlock and processing in
8 the retrieval area.

9 **Room 107 Non-destructive Assay (NDA) in WMF-1619**

10 WMF-1619, Room 107 houses the NDA unit and is not part of the RCRA permitted area.

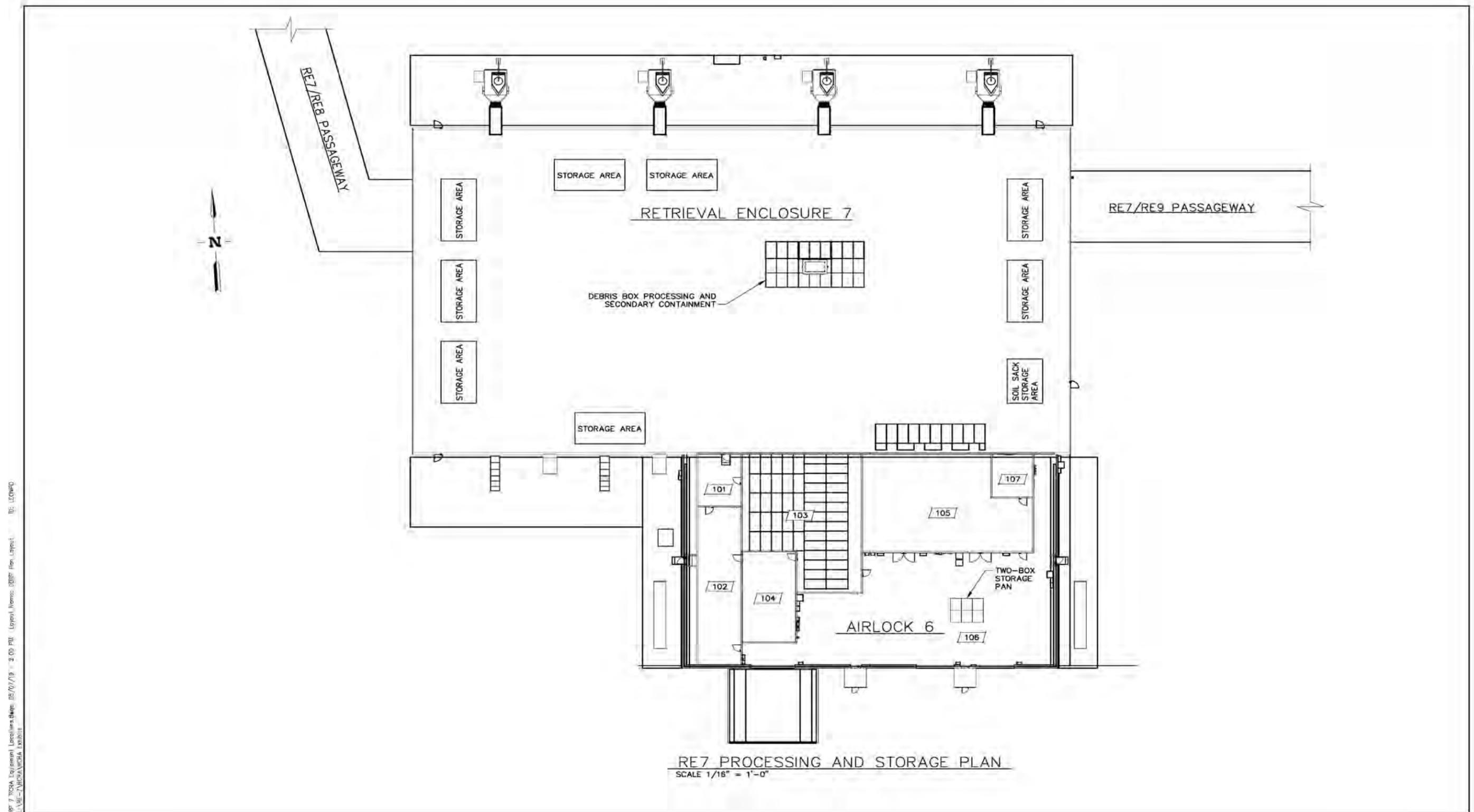
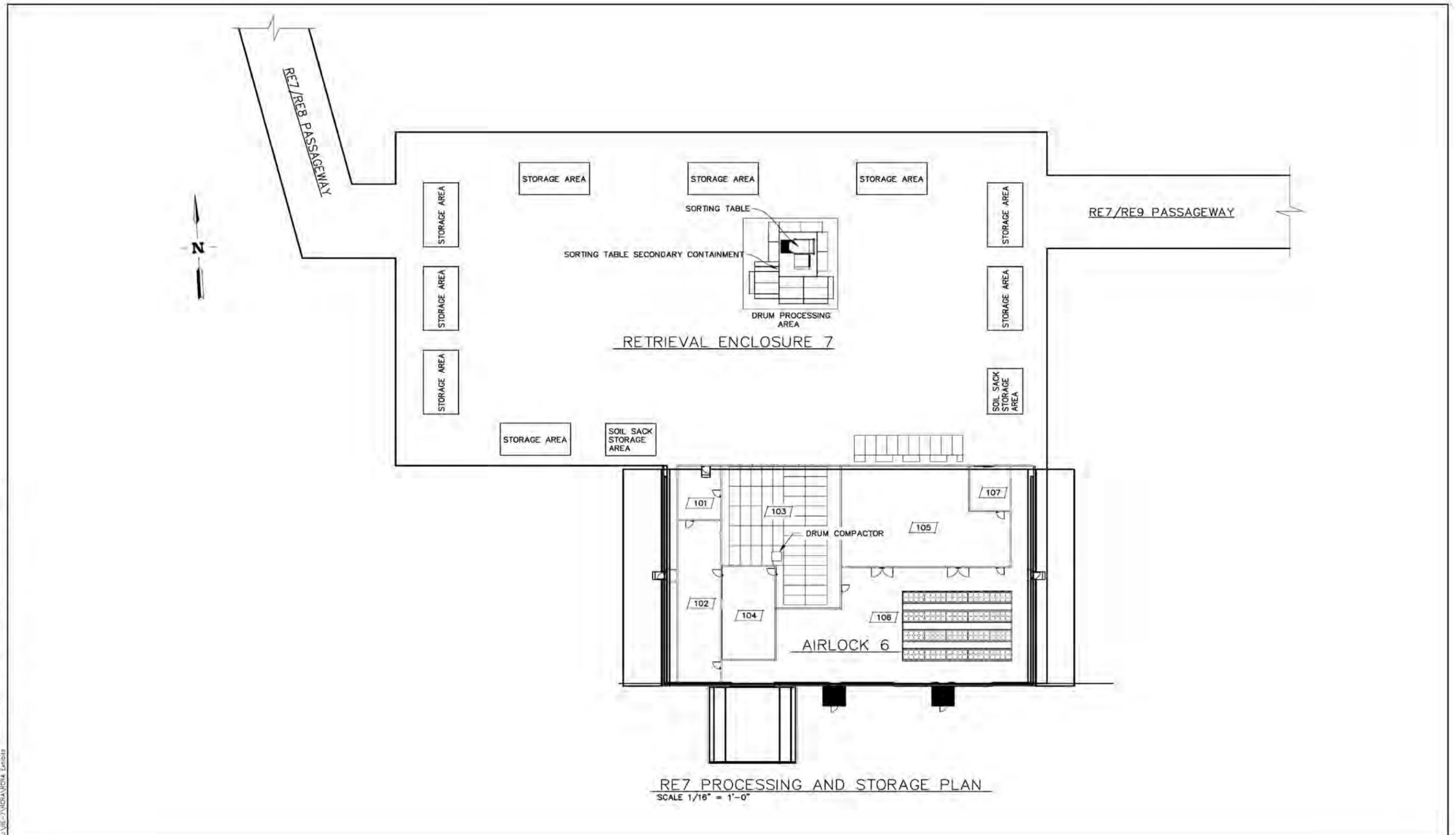
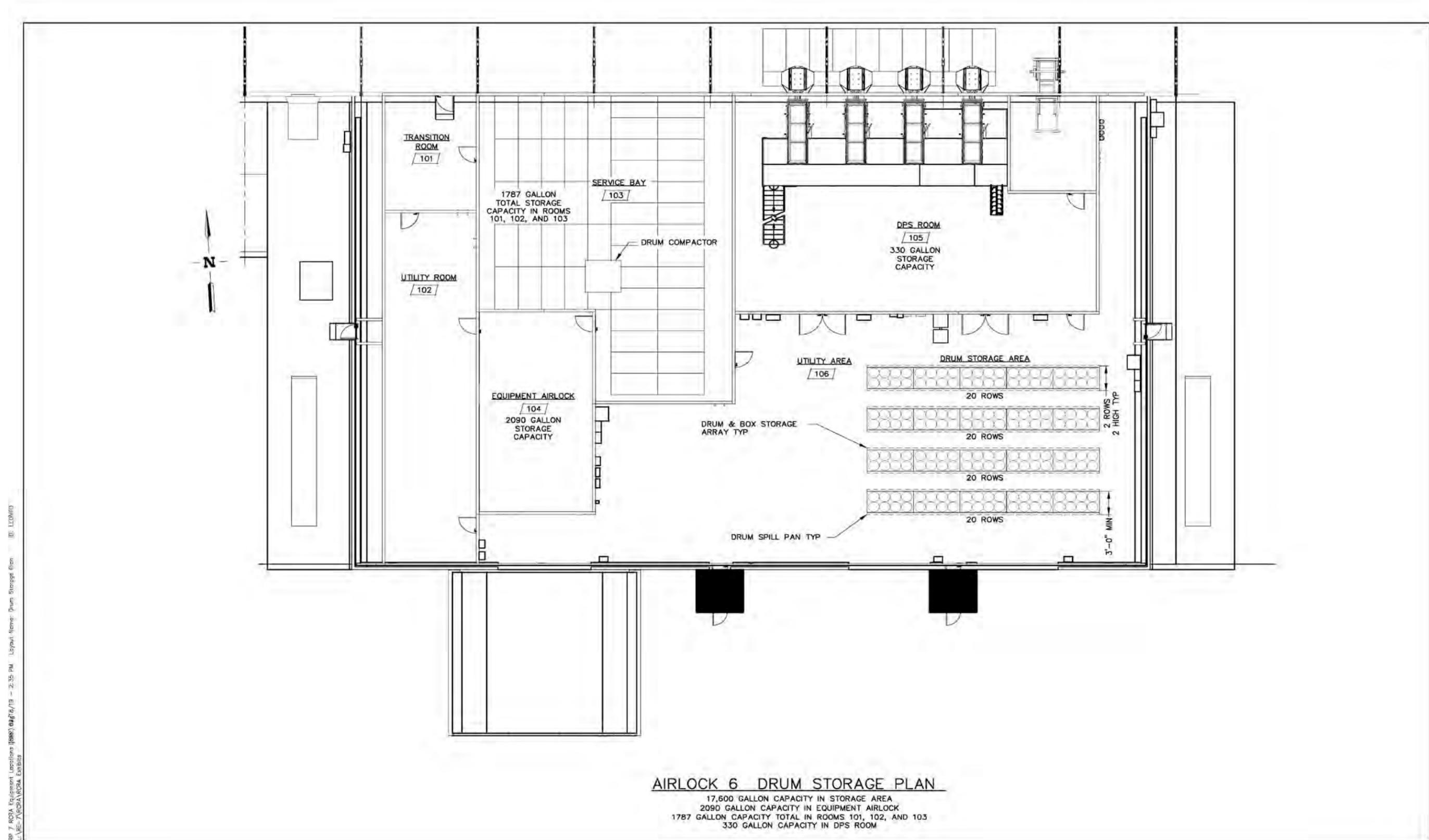


EXHIBIT B-9. Schematic of WMF-1619 Processing and Storage Plan for DRP Operations



File: Area 7 RCRA Equipment Locations (RME) 08/07/19 - 11:06 AM Layout Name: Plan Layout
Title: LA-06-21-RCRA RCRA Exhibit

EXHIBIT B-10. Schematic of WMF-1619 Processing and Storage Plan for SRP Operations



File: ARB 7 RCRA Equipment Locations [Date] 4/13 - 2:35 PM Layout Name: Drum Storage Plan ID: L10M03
Rev: LAE-7 RCRA RCRA Exhibit

EXHIBIT B-11. Schematic of WMF-1619 Airlock 6 Drum Storage Plan

1 **RWMC Location Information**

2 The RWMC occupies approximately 166 acres in the southwestern corner of the INL.
3 The INL is located along the western edge of the eastern Snake River Plain in southeastern
4 Idaho, approximately between latitudes N 43°28' to N 44°02' and longitudes E 112°26' to E
5 113°15'. The following sections describe how the RWMC complies with the seismic and
6 floodplain standards under 40 CFR 270, 40 CFR 264.18, IDAPA 58.01.05.012, and
7 IDAPA 58.01.05.008.

8 Seismic Standard [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR 264.18(a) and 40
9 CFR 270.14(b)(11)(i-ii)]

10 The RWMC is located in Butte County, Idaho. Butte County is not listed in IDAPA
11 58.01.05.008 (Appendix VI to 40 CFR 264), and, therefore, does not require demonstration of
12 compliance with the seismic standard.

13 Floodplain Standard [IDAPA 58.01.05.008; 40 CFR 264.18(b);
14 IDAPA 58.01.05.012; 40 CFR 270.14(b)(11)(iii-iv)]

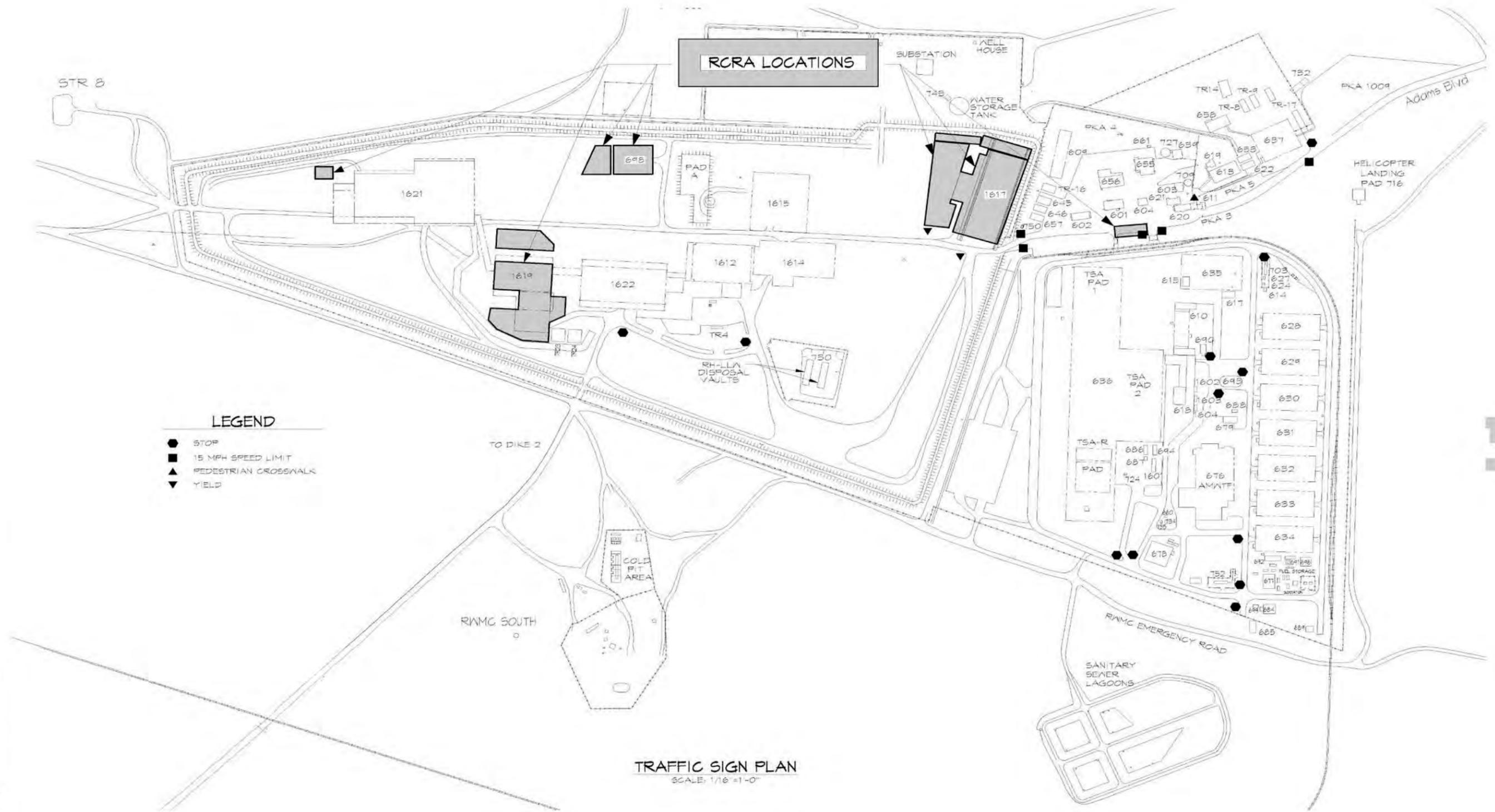
15 A 2001 flood evaluation study (“100-Year Floodplain and 25-Year Runoff Analyses for
16 the Radioactive Waste Management Complex Area at the Idaho National Engineering and
17 Environmental Laboratory,” T. Mitchell, S. Mitchell, J. Humphrey, D. Kennedy, and T.
18 Funderburg, December 2001), provided in Book 3B, Appendix 2 of this Permit, analyzed the
19 extent of a 100-year floodplain. Based on this analysis, there are no mixed waste management
20 areas located within the 100-year floodplain at the RWMC. The requirements of this section are,
21 therefore, not applicable.

22 Traffic Information [IDAPA 58.01.05.012; 40 CFR 270.14(b)(10)]

23 U.S. Route 20/26 is the general access route to the RWMC and the SDA. Van Buren
24 Boulevard intersects U.S. 20/26 northeast of the RWMC and is the direct access road leading to
25 the Experimental Breeder Reactor I (EBR-I). Adams Boulevard intersects Van Buren Boulevard
26 just north of EBR-I and is the direct access road leading to the RWMC. Employee-owned
27 vehicles are not allowed to enter the SDA. Personnel travelling in the SDA either walk or are
28 transported by contractor vehicles/equipment, federally owned vehicles, or vendor vehicles.

1 Waste transfers to/from AMWTP and the SDA are completed via the access gates between the
2 TSA and SDA areas.

3 Traffic control procedures within the SDA area support facility operations, maintenance,
4 and waste transfers. These traffic procedures are implemented using standard highway traffic
5 control and informational signs. The typical sign types that may be used in the SDA are: Stop
6 signs (at access gates and some road intersections); Clearance signs (where electrical lines pass
7 over the roadway and restrict traffic); Speed Limit signs (various signs on roadways as
8 necessary); Directional signs (various roadways to indicate traffic flow direction); and
9 Informational signs (various roadways to indicate facility locations, loading/unloading areas,
10 etc.). Example locations of stop signs and speed limit signs for the SDA are shown in
11 Exhibit B-12.



12 LEOPD
 File: TRAFFIC SIGNS B-21-19.dwg Date: 05/27/19 - 10:25 AM Layout Name: T1
 Path: L:\SE-7\RCRA\RCRA SDA E\19101

EXHIBIT B-12. Example of Traffic Sign Plan/Location

D. PROCESS INFORMATION

This section provides process information for the Radioactive Waste Management Complex (RWMC) Subsurface Disposal Area (SDA) Sludge Repackage Project (SRP) and Debris Repackage Project (DRP) waste management units addressed in this permit: container storage (S01) in buildings WMF-698, WMF-1617, WMF-1619 and at the trailer storage areas, and miscellaneous treatment (X99 and X02 in Buildings WMF-1617 and WMF-1619) and miscellaneous storage (X99) in Buildings WMF-1617 and WMF-1619. Miscellaneous treatment is conducted in three miscellaneous treatment units in WMF-1617; the retrieval area, the DPSs, and the drum compactor. Miscellaneous treatment in WMF-1619 is conducted in the retrieval area, the DPSs, and Room 103 (Service Bay) – Drum Compactor X02 – mechanical processing (crushing), X99 – absorbent addition). Activities include any/all of the following, opening waste containers (boxes or drums), staging waste in the retrieval area associated with waste processing activities, venting containers, removing waste from the container, segregating/sorting waste, opening/crushing inner containers with liquid content, absorbent addition for liquids, segregation/treatment of WIPP prohibited items, sizing waste to fit into containers, and subsequently placing the waste into new containers. Sizing/compaction/ crushing of drum carcasses and/or liners may also be performed.

Recovery operations related to the April 11, 2018 drum event in WMF-1617 were complete July 30, 2019. WMF-1617 is physically capable of supporting sludge processing operations. However, residual contamination in the structure mandates additional controls and increased potential for radiological exposure of workers. Therefore, SRP activities described for both WMF-1617 and WMF-1619 are performed only in WMF-1619.

Container Storage in WMF-698

WMF-698 is used for storing waste containers received from the AMWTP. Waste containers are stored in WMF-698 until being transferred to WMF-1617/1619 for further processing. Maxi-Heat Engine Driven Heaters (diesel fuel) are used to warm containers in WMF-698, as necessary, prior to transfer. Containers are covered with reinforced construction film and warm air supplied by the Maxi Heaters is introduced to allow the containers to thaw. The reinforced construction film meets the NFPA 701 standards for fire resistance. The material will not sustain combustion. The Maxi Heaters are located no closer than 25 ft from the Storage Enclosure. Hoses are run from the Maxi Heaters into the Storage Enclosure and connected to metal manifolds that direct the warm air into the construction film covering the containers.

1 Once these containers have been processed at WMF-1617/1619, they are either returned to
2 WMF-698 for interim storage or returned directly to the AMWTP. WMF-698 is permitted to store up
3 to 1,973 drums (108,515 gallons). The storage configuration consists of storing the containers in a
4 standard RCRA 2-wide by 2-high configuration. Containers with liquids are stored on storage
5 secondary containment pans to provide secondary containment for free liquids. Waste boxes may also
6 be used for storage at WMF-698 in the same 2-wide by 2-high

1 configuration. Aisle space is provided for inspection personnel and emergency equipment (minimum
2 of 3 feet between drum or box rows, and a 20-foot main aisle to allow removal and inspector egress).
3 The maximum RCRA storage capacity (108,515 gallons) configuration is shown in Exhibit B-5. To
4 provide for effective storage capacity utilization for both RCRA and CERCLA wastes, the storage
5 areas are clearly delineated within WMF-698 using ropes and signs. The storage area dimensions
6 within the building will vary depending on operational needs. RCRA and CERCLA wastes are not
7 intermixed within container rows. Evaluation of the waste to be received from AMWTP shows no
8 compatibility, reactivity, or ignitability concerns for storage. Weekly inspections of the storage area
9 within the building, and daily inspections of the loading/unloading areas (when in use), are performed
10 by trained personnel, as required by RCRA. CERCLA waste stored in WMF-698 is segregated from
11 the RCRA waste by ropes and signs and is managed in accordance with the CERCLA protocols.
12 CERCLA waste is not subject to the RCRA permit requirements.

13 **SLUDGE REPACK PROJECT (SRP)**

14 **Container Storage in WMF-1617 and WMF-1619**

15 WMF-1617 and WMF-1619 are used for storing and processing SRP waste containers received
16 from AMWTP. SRP Container storage areas for WMF-1617 and WMF-1619 are located within
17 Rooms 101/102/103 Service Bay (2 standard waste boxes and 8 drums, or 1,787 gallons capacity for
18 each facility), Room 104 Equipment Airlock (38 drums or 2,090 gallon capacity for each facility),
19 Room 105 Drum Packaging Stations (6 drums or 330 gallons capacity for each facility), and Room 106
20 Utility Area (320 drums or 17,600 gallons capacity for each facility). The standard RCRA storage
21 configuration (2-wide by 2-high) is used. These areas are shown in Exhibits B-7 and B-11.
22 Drums/boxes that may contain liquids (i.e., before repackaging and absorbent addition is completed)
23 are stored on container storage secondary containment pans to provide secondary containment. Aisle
24 space is maintained for inspection personnel and emergency equipment. Storage in Rooms 101, 102,
25 103, 104 and 105 is flexible within the room to meet SRP operational needs, but aisle space
26 requirements are met in all configurations. Inspections are completed via visual or camera inspections
27 or viewing areas through windows. If waste processing occurs during the shift, inspection of the
28 RCRA areas is completed by direct visual inspection. Required inspections on non-operational shifts
29 (i.e., no waste processing activities) may be performed via facility cameras. The RCRA areas within
30 the Retrieval Areas are shown on Exhibits B-6 and B-10.

1 **Sludge Repackage Project Miscellaneous Treatment and Storage (X99)**
2 **and Mechanical Processing Treatment (X02) in WMF-1617 and WMF-1619**

3 Processing of the SRP waste at WMF-1617 and WMF-1619 is performed in three areas at each
4 facility: the Retrieval Area (X99), the DPS stations (X99), and the drum compactor in Room 103 (X99
5 and X02). Miscellaneous storage (X99) consists of staging of waste within secondary containment in
6 the Retrieval Area prior to processing, and staging waste for the DPS stations and drum compactor.
7 The Retrieval Area includes the following activities: opening waste containers, staging waste in the
8 retrieval area associated with waste processing activities, venting containers, removing waste from the
9 container onto the sorting table, segregating/sorting waste, opening/crushing inner containers with
10 liquid content, absorbent addition for liquids, segregation/treatment of WIPP prohibited items, staging
11 empty drums and ancillaries (lids, rings), wiping sludge from drum exteriors or applying fixative,
12 compacting/crushing empty containers with the excavator, and sizing waste to fit into containers. The
13 DPS activities include segregation of prohibited items, addition of absorbents to the waste in the tray
14 as necessary, decontaminating containers, visual examination by WIPP-qualified visual examiners to
15 document compliance with the WIPP WAC, and placing the waste into new containers. The Drum
16 Compactor is used to compact drum carcasses and/or liners and secondary waste and also includes
17 absorbent addition for any liquids from the compaction process. These activities will allow the
18 repackaged waste to meet the WIPP WAC.

19 At the WMF-1617 and WMF-1619 facilities, a portion of the SRP drums to be processed are
20 30-55-gallon drums placed in larger overpack containers (e.g., 83 gallon overpack drums and various
21 waste boxes). The drums must be removed from the overpack containers to support processing the
22 prohibited items (e.g., free liquids) at the sorting table for each facility. Drums are removed from
23 overpack containers within Room 103 or adjacent to the sorting table, depending on waste container
24 characteristics and operational needs. The drum removal process in Room 103 involves removing the
25 lid from the overpack container, followed by using the existing Room 103 gantry crane to lift the drum
26 from the overpack container using a drum lifting attachment. This process is performed within a
27 secondary containment pan located within Room 103, position specific to operational needs.

28 Prior to rigging and lifting the SRP drum, operations will inspect the inner drum to identify
29 conditions that would prohibit removal in Room 103. If the inner drum shows evidence of

1 rupture, severe rusting, or structural defects (such as excessive bulges), the containers are transferred to
2 the sorting table for processing.

3 SRP Drum removal and processing at the sorting table area is performed within the secondary
4 containment through use of the excavator and other processing equipment as needed (e.g., telehandler).

5 A limited number of oversized boxes with volume larger than 862 gallons may be stored within
6 the retrieval area or brought in for same-day processing without storage. Waste boxes with known free
7 liquid content within the boxes (i.e., outside of the inner drums) based on real-time radiography or
8 other characterization data, may be processed to solidify the free liquids in the box before entering the
9 retrieval area. Waste boxes without free liquids, are stored on the existing 9' by 9' by 6" secondary
10 containment pans.

11 Some SRP boxed waste and/or inner drums may require venting before processing to release
12 any flammable gases that may be present (e.g., hydrogen gas). Non-sparking tools are used to perform
13 the venting. Venting is performed in the service bay (Room 103) or in the retrieval area based on
14 operational or safety considerations.

15 SRP Drum lids/rings are loosened and removed in either the equipment airlock (Room 104),
16 the service bay (Room 103) or in the retrieval area, depending upon operational needs. The lids and
17 drum ancillaries (e.g., rings and bolts) are staged in trays for separate management as secondary waste.

18 SRP boxes and drums staged in the retrieval area at both WMF-1617 and WMF-1619 are
19 placed in waste tray secondary containment pans. The locations of the eight 20' by 60' staging areas
20 and two soil sack staging areas within the WMF-1617 RA are shown in Exhibit B-6. The locations of
21 the nine 20' x 60' staging areas and two soil sack staging areas within the WMF-1619 RA are shown
22 in Exhibit B-10, each area contains four waste tray secondary containment pans. The waste tray
23 secondary containment pans are 9'-0" by 9'-0" by 6", made of 1/4" carbon steel, and capable of
24 holding 300 gallons of liquid. The pans have a 6" high frame underneath with forklift pockets to allow
25 for movement within the identified staging areas. The waste tray secondary containment pans also
26 have an 8'-0" by 8'-0" by 12' support grate made of 1/4" carbon steel. The support grate allows for
27 inspection of the secondary containment and elevates the drums or waste trays to prevent contact with
28 accumulated liquids. Up to nine waste drums, four waste trays, or two waste boxes may be placed on
29 the waste tray secondary containment pans.

1 The location of the drum processing area, including the sorting table, is shown in Exhibit B-6
2 for the WMF-1617 facility and Exhibit B-10 for WMF-1619 facility. Exhibit D-1 provides a
3 schematic of the sorting table for both facilities. The sorting table is made of carbon steel, is 9'-2" by
4 6'-0" with a 1/2" thick floor and 1/4" thick sides. The floor and sides are reinforced to allow safe
5 mixing of the waste and absorbent. The sorting table is capable of holding greater than 130 gallons of
6 liquid. The sorting table is located inside a 14'-0" by 18'-0" by 6" secondary containment, constructed
7 of 1/4" carbon steel, which has a capacity of 942 gallons. The secondary containment also has an 8"
8 high frame with lifting lugs and skid plates for movement within the drum processing area if
9 necessary, for operational reasons.

10 To support SRP operational requirements for WMF-1617 and WMF-1619, additional
11 containment pans were added to the perimeter of the main sorting table secondary containment pan as
12 shown in Exhibits D-1 and D-2. Two 4' by 8' by 6' 7/8" secondary containment pans were added to
13 the front (southeast side) of the main sorting table pan between the front of the sorting table and the
14 excavator. These pans are attached to the main sorting table pan with u-shaped steel bridges over the
15 joints or through the use of 1/2" diameter minimum bolts placed a minimum of 4 1/4" above the bottom
16 of the pan. Lexan shields are placed on the southeast side of the secondary containment pans to
17 prevent material from being projected under the excavator. Two additional pans were placed on both
18 the southwest and northwest sides of the main sorting table as well as additional 2' x 9' pans shown in
19 Exhibits D-1 and D-2. These pans are attached with u-shaped steel bridges over the joints or through
20 the use of 1/2" minimum diameter bolts. All of the 4'x8' pans are placed on empty waste trays to
21 elevate the pans to the correct height in relation to the main sorting table.

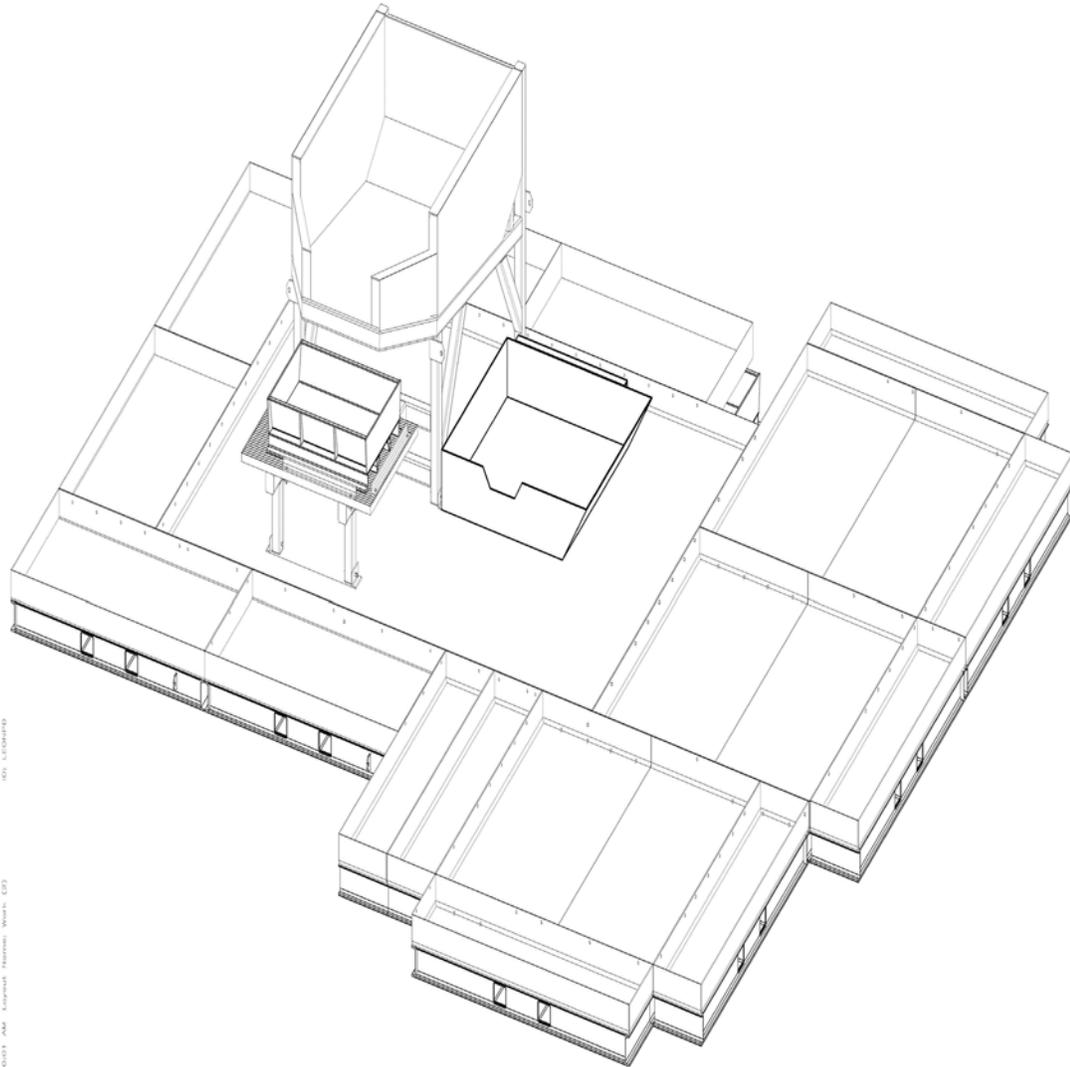
22 Three 9'x9' containment pans were placed to the northeast of the main sorting pan. These
23 9'x9' pans are connected to the main sorting pan with u-shaped steel bridges over the joints.
24 Additional bridges were placed at any exposed critical pan junctions.

25 Also shown in Figure D-2 (in red), is an inner containment pan (5' by 6') that is used in support
26 of the sorting table operations for initial drum processing activities (removal of lids and removal of
27 drums from overpacks), use of the spiking tool to facilitate removal of waste from the drums, and for
28 containment and absorption of liquids that may release during removal of drums from the overpack
29 containers. This inner pan was added as an extra level of containment during these processes to
30 prevent waste from entering the secondary containment within the treatment area. The inner
31 containment pan is operated under the same conditions as the sorting table.

1 A second inner containment pan which is 10' x 6' x 1', made of 1/4" carbon steel plate, and has a
2 carbon steel c-channel frame, may be used when removing drums from waste boxes.

3 Treatment activities conducted on the sorting table include any/all of the following activities.
4 The excavator will take the sludge drum from the waste tray secondary containment pan and empty the
5 contents onto the sorting table. If necessary, a spike tool may be used to loosen the waste in the drum
6 to assist with removal. The spike tool is a 3" diameter steel spike that can be picked up by the
7 excavator. The spike tool is stored in an upright position in a bin of absorbent to provide easy access
8 and to prevent any material that may adhere to the tool from spilling.

9 No more than two drum equivalents are permitted on the sorting table at any time. Criticality
10 Safety may have more restrictive requirements (i.e., fewer drum equivalents allowed on the sorting table) based
11 on fissile characteristics of the waste. The waste is then segregated/sorted to determine the presence of
12 liquids and identify/remove any prohibited items. Any inner containers that may have liquid content
13 are opened/crushed with the excavator thumb or bucket to allow absorption of the liquid to take place.
14 The excavator is used to add absorbent materials (identified in Attachment 2) to the waste on the
15 sorting table. The absorbent material is staged in the RA within a 4'-6" by 3'-0" by 2'-6" bin that has
16 a capacity of 250 gallons. The waste/absorbent is mixed on the sorting table with the excavator bucket
17 to ensure absorption of the liquids. Once mixing is completed, the waste is scraped from the sorting
18 table into the lined waste trays that have been placed in front of the sorting table. Care is taken not to
19 overfill the waste tray, as additional absorbent may be added in the DPS. The filled waste tray will then
20 be staged on a waste tray secondary containment pan or transported to the DPS for further processing,
21 depending on DPS availability.



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SORTING TABLE AND SECONDARY CONTAINMENT
3D SCHEMATIC

EXHIBIT D-1. Sorting Table Schematic

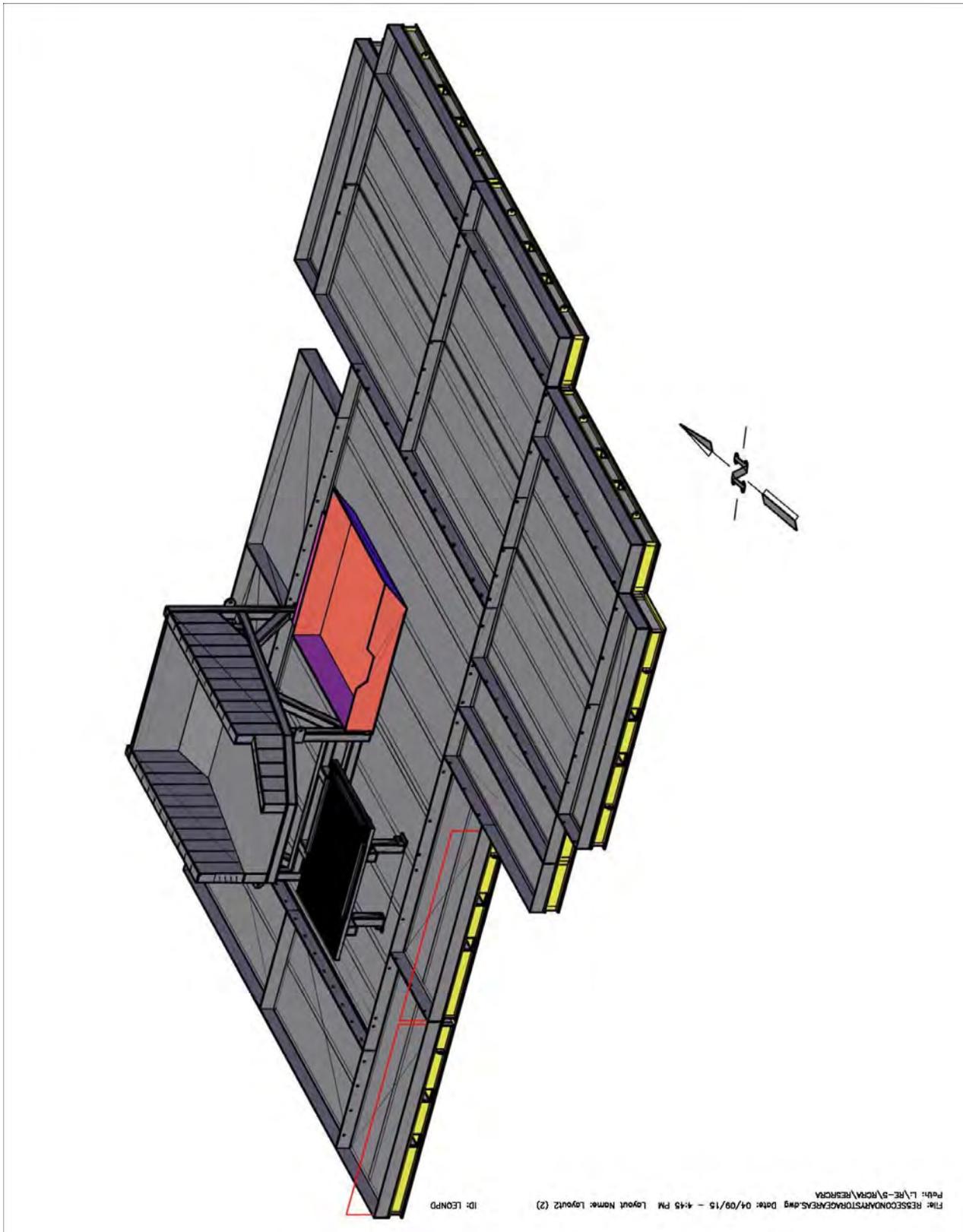


EXHIBIT D-2. Sorting table, primary 14-by-18-ft secondary containment pan, additional secondary containment pans on the exterior, and the pan located on the interior of the primary pan (interior pan shown in red).

1 All SRP waste processed in WMF-1619 is processed utilizing the following operational
2 controls developed to prevent drum over-pressurization after packaging:

- 3 • Waste material is raked when it is emptied out of the drums on the sorting table to mix the
4 material and expose it to air, then placed in trays.
- 5 • The waste material is evenly distributed within the waste tray, to the extent practical, to form a
6 uniform depth of the waste material, and is staged for a minimum of 24 hours in the Retrieval
7 Area.
- 8 • At the end of the 24-hour hold time, the waste is monitored using thermal camera(s) for
9 elevated temperatures (>4°F above ambient). If the waste temperature variation is >4°F above
10 ambient temperature, the waste is reconditioned by thoroughly raking again and holding for
11 another 24-hour period. Once the 24-hour hold is complete, the temperature is again monitored
12 using a thermal camera. If the temperature variation of the waste is verified <4°F above
13 ambient temperature, the waste is processed through the DPSs. If the temperature variation is
14 >4°F, the reconditioning rake and hold process is repeated until the temperature after a 24-hour
15 hold is no longer >4°F above ambient.
- 16 • The waste remains staged for a minimum of 24 hours to allow for any reaction to complete so
17 that the reaction occurs in the Retrieval Area instead of the DPSs or in a newly packaged drum.
- 18 • By removing the significant heat source prior to packaging of the waste in a drum, the methane
19 generation does not occur rapidly enough to generate sufficient gas/pressure to remove the
20 drum lid.

1 The sorting table activities performed inside the retrieval enclosure are observed through
2 either excavator mounted cameras or cameras located within the facility (see Exhibit D-3 for
3 camera locations within the WMF-1617 RA and see Exhibit D-7 for the WMF-1619 Retrieval
4 Enclosure Camera Plan) that broadcast a video feed to the operations control room. The operations
5 foreman directs the operation through viewing these camera feeds and communicates by radio
6 with the equipment operator.

7 WIPP prohibited items are treated on the sorting table or are segregated using the
8 excavator at this point and staged in a waste tray located within a waste tray secondary
9 containment pan. If segregation is not practical within the retrieval area via the excavator,
10 segregation of prohibited items is performed in the DPS. If consistent with the facility safety
11 basis, prohibited items are packaged into drums through the DPS and transferred to AMWTP for
12 processing and disposition. In some cases, prohibited items are staged in waste trays in the
13 retrieval area within secondary containment after segregation in the DPS to provide operational
14 flexibility. Prohibited items, staged inside the retrieval area in a waste tray, are separated from
15 other waste by distance and/or barriers and handled as appropriate.

16 Containers (drums, boxes, and associated liners, if any) that are emptied will undergo
17 visual verification (via video camera feed described above). Operations personnel view the inside
18 of a waste container that has been emptied on the video feed or direct visual observation (through
19 the windows) and determine through operational experience and training if the container meets the
20 regulatory definition to be considered RCRA empty. The RCRA empty determination is
21 documented on FRM-1367 which is maintained in the Operating Record. Containers less than or
22 equal to 119 gallons in size that are verified as empty [i.e., no more than the equivalent of one inch
23 at the bottom of the container (or 3-percent by weight) of residues exist on the aggregate of the
24 interior and exterior of the container)], are staged for separate management as non-RCRA
25 secondary waste. For containers larger than 119 gallons in size, 0.3 percent (by weight) of the
26 total capacity of the container may exist on the aggregate of the interior and exterior of the
27 container. In instances where the sludge is not readily removed from a container, the excavator is
28 used to dismantle the container (sizing) to remove the sludge, or the sludge is removed in the DPS.
29 In these cases, the container carcasses may not support a RCRA empty determination;
30 consequently, the non-intact container is crushed (sizing) by the excavator in a waste tray
31 secondary containment pan (without grate), or the sorting table secondary containment pan, or in
32 the drum compactor and staged/packaged for

1 management as RCRA secondary waste (i.e., hazardous debris). Secondary wastes are placed
2 into drums, standard waste boxes, or other waste boxes. After being emptied in the DPS, the
3 waste trays are returned to the RA and stacked on a waste tray secondary containment pan for
4 reuse in the process.

5 A drum compactor is located in Room 103 to compact empty drums. Exhibit D-4
6 provides a schematic of the drum compactor. The compacted drums are direct loaded into a
7 container (drum or standard waste box) in Room 103 or passed through a radiological portal into
8 a container in Room 106 for disposition.

9 The drum compactor (Exhibit D-4) is constructed of carbon steel. The empty drum
10 carcass is placed in the compactor either vertically upright or upside down. During compaction,
11 a large diameter mast head presses down on the drum, causing it to collapse downward as it is
12 compacted. Total time for the compaction cycle on each drum is approximately 55 seconds.
13 Drum compaction is performed with the door of the compactor closed and latched, for purposes
14 of safety.

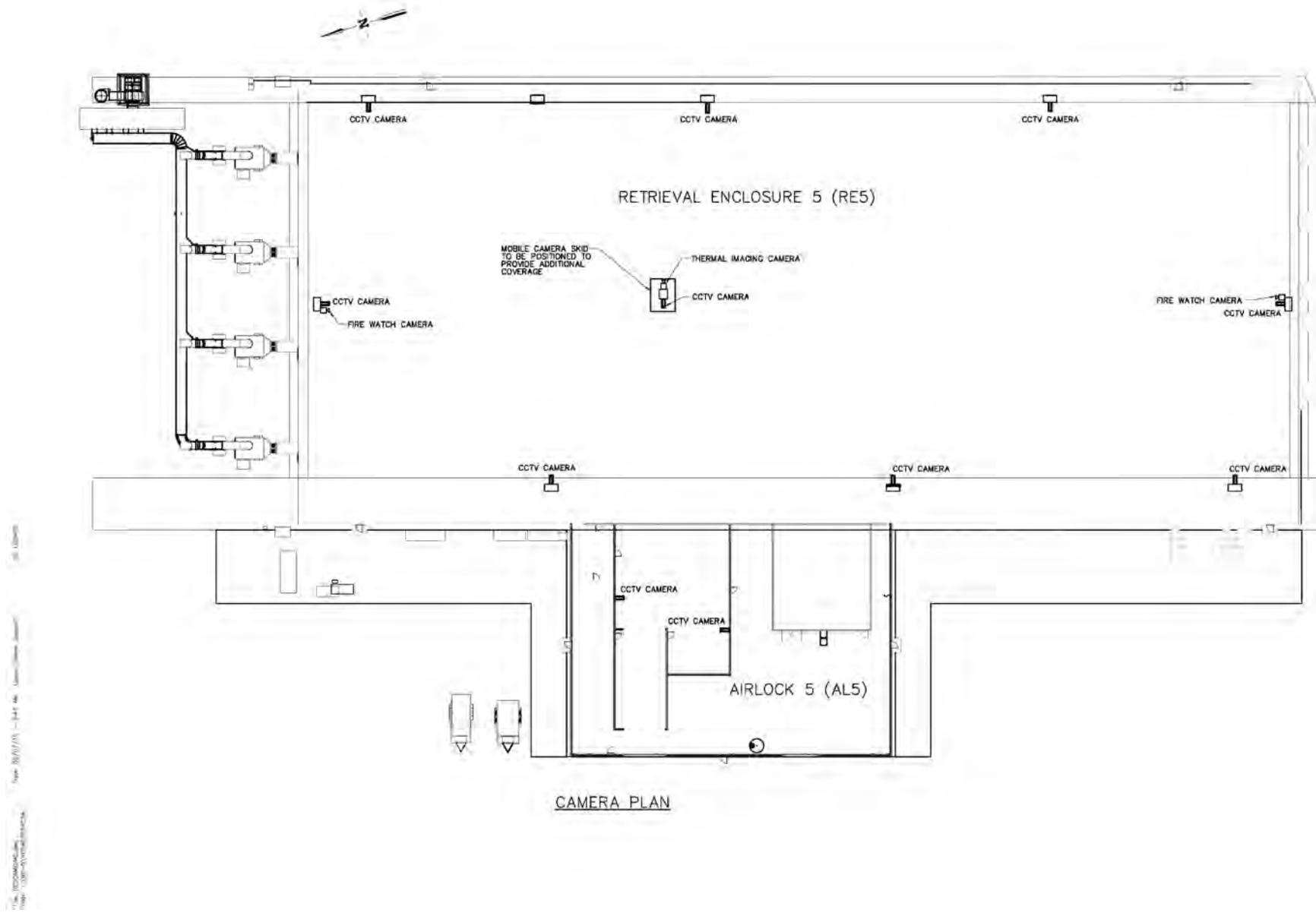


EXHIBIT D-3. WMF-1617 Retrieval Enclosure Camera Plan

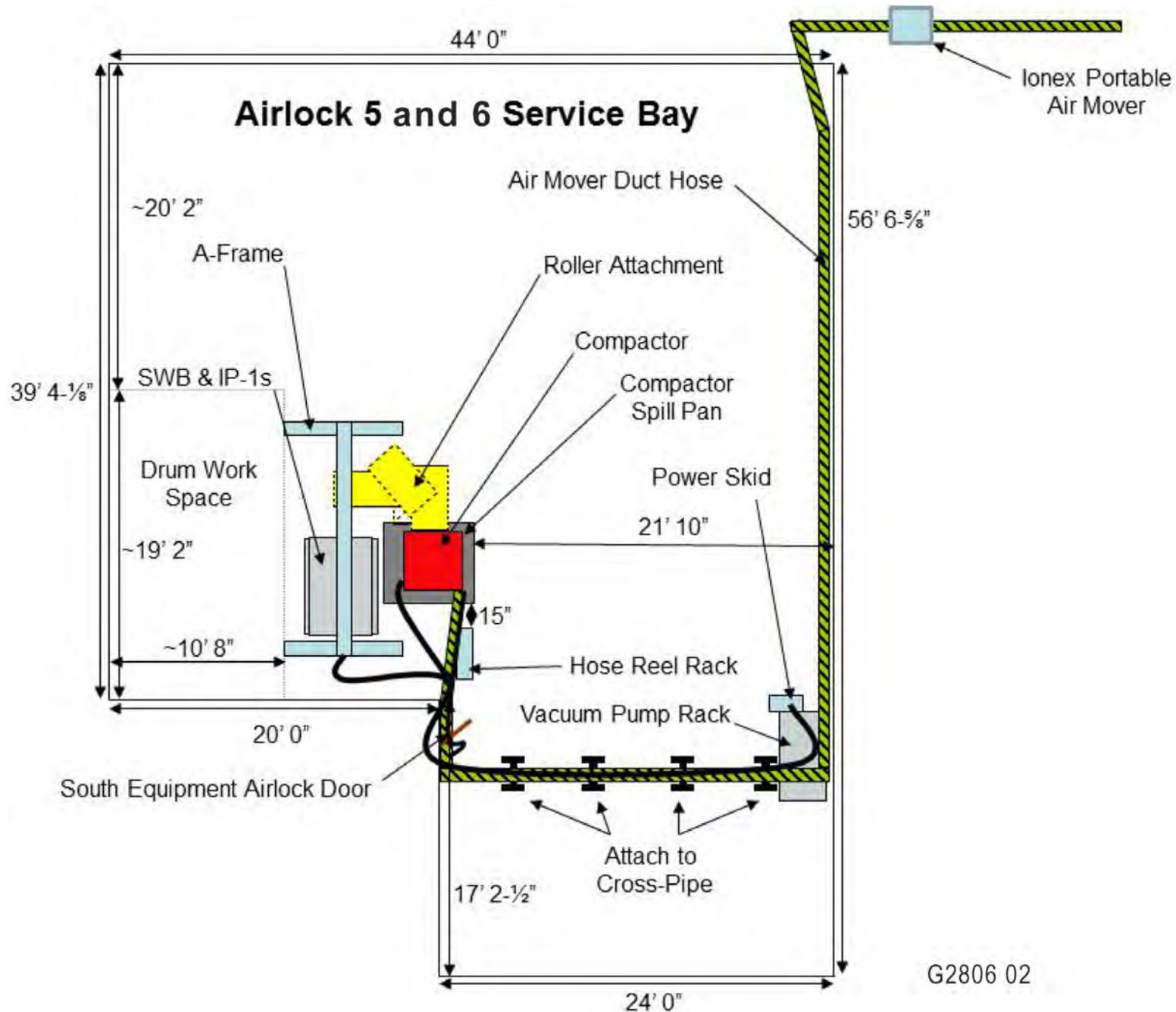


EXHIBIT D-4. Example of Drum Compactor used at WMF1617 and WMF-1619

1 The drum compactor is located in the drum compactor secondary containment tray.
2 The tray is 5'-0" by 5'-6" by 4" carbon steel and includes a channel to elevate the drum
3 compactor by 6". The tray also has a 4'-0" section of roller table attached to the front to aid in
4 drum handling. The tray provides 60 gallons of capacity for any liquids that are produced
5 during the drum compaction. Absorbent is staged within Room 103 and is applied to the
6 liquids within the containment tray with hand tools (scoops, shovels, etc.). The absorbed
7 material is then removed from the tray, bagged, and returned to the RA for inclusion in the
8 waste stream.

9 Once in the DPS, WIPP qualified Visual Examiners (VEs) will thoroughly inspect the
10 waste. Visual Examination (VE) Operators are qualified to the WIPP certified program. VE
11 is conducted at the DPSs in accordance with a WIPP certified procedure. The scope of this
12 procedure is "to document the physical waste form, confirm the Waste Stream description and
13 Waste Matrix Code, document that no prohibited items are present, and estimate the weight of
14 the waste material parameters." Additional characterization is performed at the AMWTP.
15 The characterization information from these processes is included in the updated AK package
16 by AMWTP for shipment to WIPP.

17 Any further WIPP prohibited items identified are segregated for return to AMWTP
18 separate from the sludge waste being processed or treated on the sorting table within the
19 retrieval area. Evidence of, or potential for free liquid generation is mitigated using the
20 addition of absorbent followed by a thorough mix using simple DPS based tools (scoops,
21 small shovels, small rakes, etc.). At this point, the waste is hoisted in its tray liner, moved and
22 then lowered to a new drum attached to the DPS load out port. A radiological transfer sleeve
23 ensures no contamination is spread during the discharge to the drum.

24 The liner, a bottom discharge type, is then discharged allowing the waste to transfer to
25 the drum. Absorbent is added in accordance with WIPP requirements. The tray liner is
26 included in a waste drum. The transfer sleeve is then cut using radiological control protocols,
27 the drum lid is attached, and contamination surveys performed on the outside of the drum.
28 The drum is then moved using a drum hauler within the airlock for staging in the utility room
29 (Room 106) or loaded on a trailer pending transfer to AMWTP.

1 If waste is spilled outside of containment pans (i.e., into the surrounding soil), operations
2 personnel will immediately use excavation equipment to collect the spilled material and
3 surrounding soil. Hand excavation by personnel in protective equipment may also be used to
4 collect the spilled material and surrounding soil. Inspections of the soil in the immediate vicinity
5 of waste tray secondary containment pans and the drum processing area is conducted on each
6 operating day using equipment-based cameras or cameras located throughout the RA as shown in
7 Exhibits D-3 and D-7, to ensure collection of any waste/material that is spilled. An inspection is
8 also be conducted if the treatment process is shut down for more than five days. Direct visual
9 inspection by personnel in PPE is completed during shifts when waste processing occurs.

10 During processing some spillage of waste may occur in the DPS. This may occur when
11 the waste is being inspected, when waste is being mixed with absorbents, and/or when the tray
12 liners are hoisted. This spillage will accumulate at the bottom of the DPS. It is cleaned out each
13 operating day, or as necessary for operations, by collecting the spillage and transferring to other
14 waste handling trays, and/or sweeping the material outside of the DPS to collection waste
15 handling trays via the attached debris slides. This waste is returned to the sorting table for
16 inclusion in repackaged waste.

17 It is a recognized situation that within WMF-1617 and WMF-1619 waste exhumation
18 facilities, contaminated soils are present from previous CERCLA operations. Periodic
19 equipment decontamination is performed within the retrieval area to achieve acceptable
20 radiological conditions on the equipment for required maintenance. Any portion of the
21 equipment (e.g., excavator, telehandler forklift, loader) that is contaminated with CERCLA
22 materials, such as contaminated soils, may require that the material be removed through spray
23 washing, brushing, or other means, and the associated wastes placed within the CERCLA
24 contaminated area. Equipment surfaces may also come in contact with RCRA waste (e.g.,
25 excavator bucket or thumb) and require decontamination. Waste material is removed through
26 spray washing, brushing, or other means. The waste material is collected in the excavator
27 secondary containment bucket or other secondary containment pan. The excavator secondary
28 containment bucket is a 4'-6" by 3' by 2'-6" carbon steel container with a crossbar for the
29 excavator to lift. Waste from decontamination of RCRA contaminated equipment is contained
30 within the bucket, and then packaged out of the facility as RCRA waste.

1 Once drums have completed processing and have been loaded back onto the transport
2 trailer, staging of a loaded trailer may be required prior to returning the drums to AMWTP. Five
3 locations are used for the trailer storage areas. The first location is near WMF-1617 (3 trailers
4 maximum). The second location is near WMF-698 (2 trailers maximum). The third location is
5 near the bridge to AMWTP (1 trailer maximum), the fourth location is near WMF-1619 (3
6 trailers maximum), and the fifth location is near WMF-1621 (1 trailer maximum). These
7 locations are shown on Exhibit B-2. 80 drums or 14 waste boxes at a maximum may be staged
8 on the soft-sided transport trailer which provides weather protection.

9 **Debris Repackage Project (DRP) Container Storage in WMF-1619**

10 WMF-1619 is used for storing and processing waste containers received from AMWTP.
11 Container storage areas are located within Rooms 101/102/103 Service Bay (2 solid waste boxes,
12 8 drums, and 1 large box or 3,187 gallons capacity), Room 104 Equipment Airlock (4 standard
13 waste boxes or 2,693 gallon capacity), Room 105 Drum Packaging Stations (6 drums or 330
14 gallons capacity), and Room 106 Utility Area (4 standard waste boxes and 10 drums or 3,243
15 gallon capacity). The standard RCRA storage configuration (2-wide by 2-high) is used. These
16 areas are shown in Exhibit B-11. Drums/boxes that may contain liquids (i.e., before repackaging
17 and absorbent addition is completed) are stored on container storage secondary containment pans
18 to provide secondary containment. Aisle space is maintained for inspection personnel and
19 emergency equipment. Storage in Rooms 101, 102, 103, 104 and 105 is flexible within the room
20 to meet operational needs, but aisle space requirements are met in all configurations. Inspections
21 are completed via visual or camera inspections or viewing areas through windows. If waste
22 processing occurs during the shift, inspection of the RCRA areas is completed by direct visual
23 inspection. Required inspections on non-operational shifts (i.e., no waste processing activities)
24 are performed via facility cameras. The RCRA areas within the Retrieval Area are shown on
25 Exhibit B-10.

26 **DRP Miscellaneous Treatment and Storage (X99) in WMF-1619**

27 Processing waste at WMF-1619 is performed in the following areas: the Retrieval Area
28 (X99), the DPS stations (X99), and Room 103 Service Bay (X99). Miscellaneous storage (X99)
29 consists of staging of waste within secondary containment in the Retrieval Area prior to or
30 following processing, and staging

1 waste trays for the DPS stations. Soil sacks containing secondary waste may also be stored in
2 designated areas within the retrieval area.

3 WMF-1619 is being used to process waste containers from AMWTP that contain large
4 debris that cannot be handled at AMWTP. Waste boxes are placed on a Box Transfer Pan using
5 a forklift in Room 104 or crane in Room 103 prior to being processed in the Retrieval Area. The
6 Retrieval Area processing includes the following activities: staging waste in the retrieval area
7 associated with waste processing activities, opening waste containers, removing the container
8 from around the debris waste, segregating/sorting the loose debris into separate waste boxes,
9 opening/crushing inner containers with liquid content, absorbent addition for liquids with the
10 absorbed material being placed into the boxes of repackaged loose debris, segregation/treatment
11 of WIPP prohibited items, staging empty containers, and sizing waste to fit into containers. In
12 addition, the large debris items may be transferred into the service bay (Room 103) for manual
13 radiological decontamination. The decontamination process will include simple manual
14 decontamination by operations personnel in PPE, such as using hand spraying equipment (small
15 portable container with a wand or spray bottles), wiping by hand, brushes, carbon dioxide (CO₂)
16 decon, etc. Liquids/gels used for decontamination are commercially available, non-solvent, and
17 non-ignitable (e.g., window cleaner, Radiac, Speedball, etc.). Absorbent addition to any liquid
18 decontamination wastes will also be performed (see Attachment 2 for approved absorbents).

19 The Drum Packaging Stations activities include segregation of prohibited items, addition
20 of absorbents to the waste in the tray as necessary, decontaminating containers, visual
21 examination by WIPP-qualified visual examiners to document compliance with the WIPP WAC,
22 and placing the waste into new containers. These activities will allow the repackaged waste to
23 meet the WIPP WAC or other disposition requirements. Containers staged in the retrieval area
24 are placed in waste tray secondary containment pans. Containers without liquids, solid debris on
25 a box transfer pan, and soil sacks with secondary waste do not require secondary containment.
26 The locations of the 9' by 18' staging areas within the RA are shown in Exhibit B-10, each area
27 contains two waste tray secondary containment pans. The waste tray secondary

1 containment pans are 9'-0" by 9'-0" by 6", made of 1/4" carbon steel, and capable of holding
2 300 gallons of liquid. The pans have a 6" high frame underneath with forklift pockets to allow
3 for movement within the identified staging areas. The waste tray secondary containment pans
4 also have an 8'-0" by 8'-0" by 12' support grate made of 1/4" carbon steel. The support grate
5 allows for inspection of the secondary containment and elevates the containers or waste trays to
6 prevent contact with accumulated liquids. Up to nine waste drums, four waste trays, or two
7 waste boxes may be placed on the waste tray secondary containment pans.

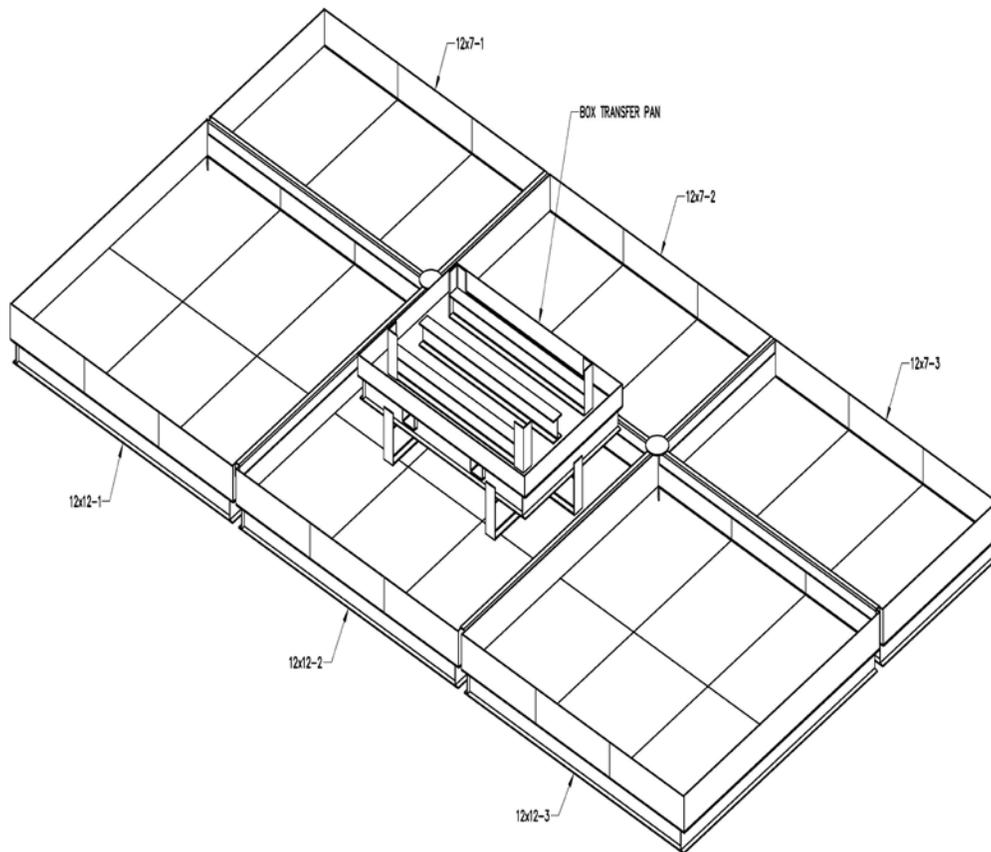
8 The location of the DRP container processing area within the Retrieval Area is shown in
9 Exhibit B-10. Exhibit D-5 provides a schematic of the Debris Box Containment and Secondary
10 Containment. The Box Transfer Pans are shown in Exhibits D-6a and D-6b. The Box Transfer
11 Pans are a 9' by 6' by 6" pan made of 1/4" carbon steel with steel C-channel base frame. The
12 Box Transfer Pans are capable of holding approximately 200 gallons of liquid. The Box
13 Transfer Pans are located inside a 12' by 12' by 10" secondary containment, constructed of 1/4"
14 carbon steel, which has a capacity of approximately 900 gallons.

15 To support DRP operational requirements, additional containment pans have been added
16 to the perimeter of the main secondary containment pan as shown in Exhibit D-5. Two 12' by
17 12' by 10" secondary containment pans have been added on either side of the main secondary
18 containment pan and three 12' by 7' by 10" pans, capacity of 520 gallons, have been added on
19 the excavator side. These pans are connected to the main sorting pan with u-shaped steel bridges
20 over the joints. Additional bridges were placed at any exposed critical pan junctions.

21 DRP treatment activities conducted on the Box Transfer Pan include any/all of the
22 following activities. Treatment activities within the Retrieval Area are completed using the
23 excavator with its various attachments (thumb, bucket, processor head/shears). If necessary,
24 personnel in PPE may complete treatment using hand tools. The lid of the waste box is removed,
25 and the box is disassembled. The empty box pieces are placed into new waste boxes and are
26 dispositioned as part of the waste stream. Loose debris is removed from the box, size reduced
27 as necessary, and placed into a separate waste box. Some of the boxes may contain small
28 amounts of liquids, any liquids are absorbed and placed into the box of repackaged loose debris
29 or segregated if necessary (see Attachment 2 for approved absorbents). Any inner

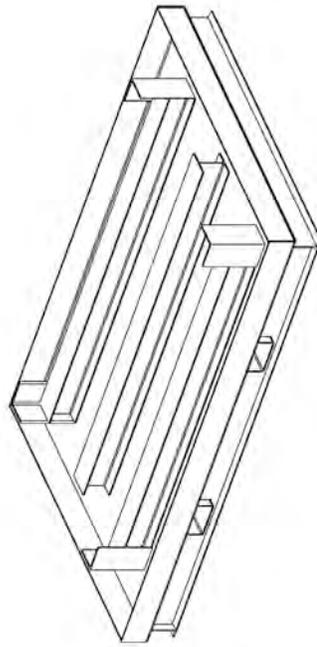
1 containers that may have liquid content are opened/crushed with the excavator thumb or bucket
2 to allow absorption of the liquid to take place.

3 Large debris items (pipe, metal, etc.) are transferred in the Box Transfer Pan to the
4 Service Bay. Decontamination is completed within the secondary containment by personnel in
5 PPE using simple manual processes such as hand spray equipment, wiping by hand, using
6 brushes, carbon dioxide decon, etc.



DEBRIS BOX CONTAINMENT AND SECONDARY CONTAINMENT
3D SCHEMATIC

EXHIBIT D-5. Debris Box Containment and Secondary Containment



9x6 BOX TRANSFER PAN
STEEL PLATE PAN WITH STEEL
C-CHANNEL BASE FRAME.
WELDED CONSTRUCTION.

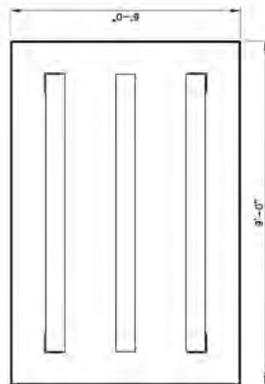


EXHIBIT D-6a. 9' X 6' Box Transfer Pan

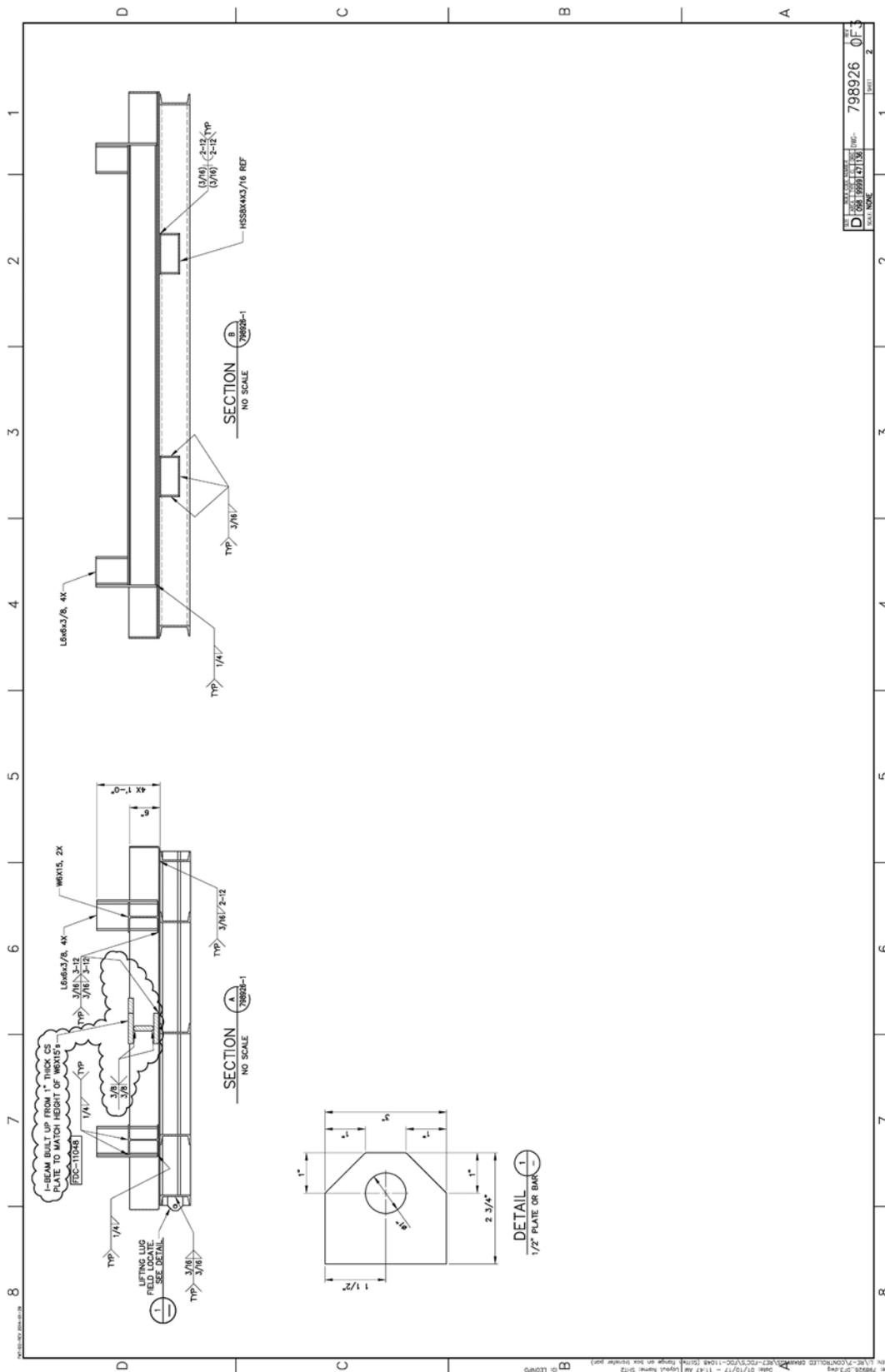


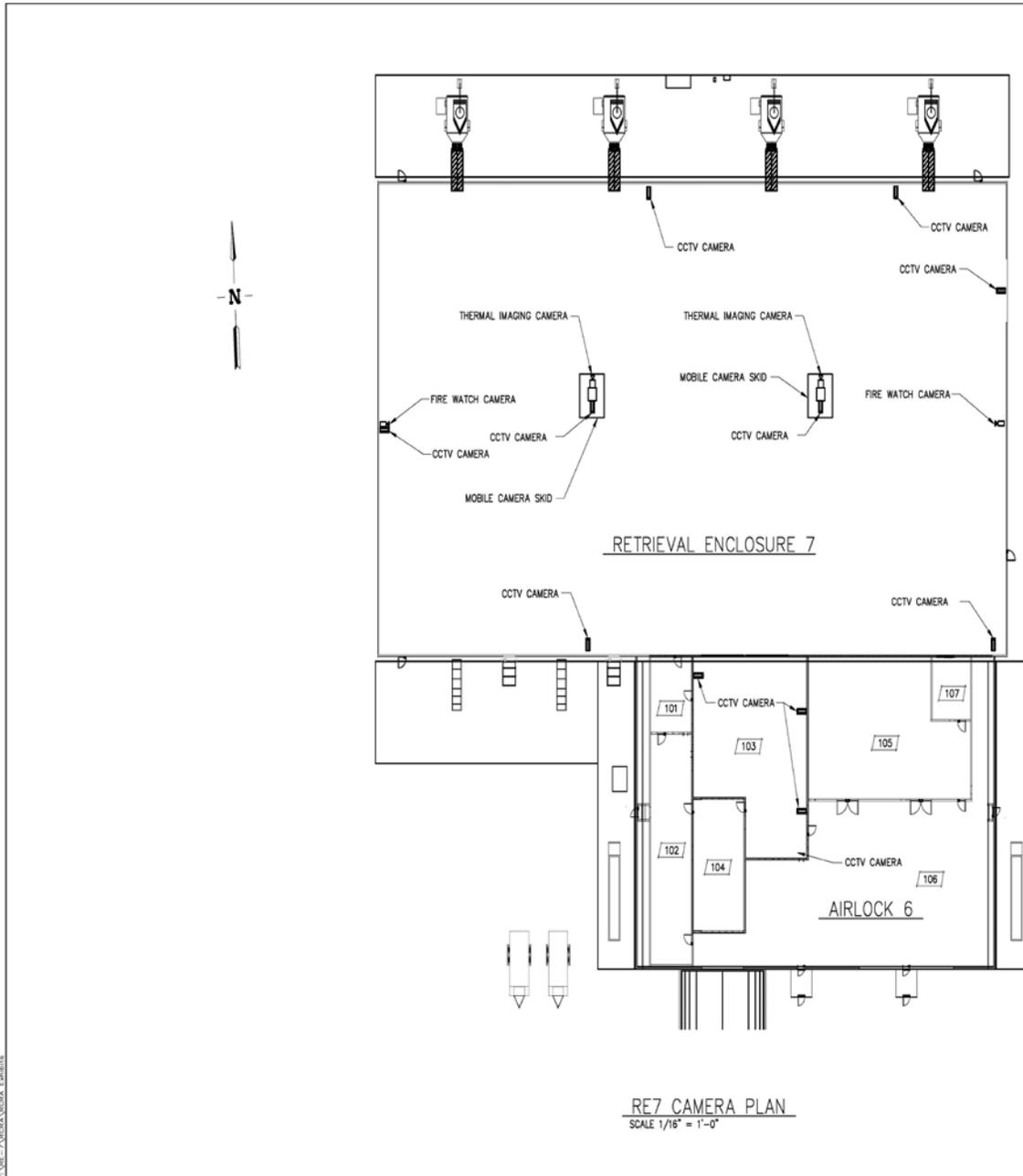
EXHIBIT D-6b. Modified Box Transfer Pan (Sheet 2)

1 The DRP waste processing activities performed inside the retrieval enclosure are
2 observed through either excavator mounted cameras or cameras located within the facility
3 (see Exhibit D-7 for camera locations) that broadcast a video feed to the operations control
4 room. The operations foreman directs the operation through viewing these camera feeds and
5 communicates by radio with the equipment operator.

6 WIPP prohibited items are treated on the debris box containment or are segregated
7 using the excavator and staged in a waste tray located within a waste tray secondary
8 containment pan. If consistent with the facility safety basis, prohibited items are packaged
9 into drums through the DPS and transferred to AMWTP for processing and disposition. In
10 some cases, prohibited items are staged in waste trays in the retrieval area within secondary
11 containment after segregation in the DPS to provide operational flexibility. Prohibited items
12 staged inside the retrieval area, in a waste tray, are separated from other waste by distance
13 and/or barriers and handled as appropriate. After being emptied in the DPS, the waste trays
14 are returned to the RA and stacked on a waste tray secondary containment pan for reuse in the
15 process.

16 Secondary wastes are placed into drums, standard waste boxes, soil sacks, or other
17 waste boxes.

18 Once in the DPS, WIPP qualified Visual Examiners (VEs) will thoroughly inspect the
19 waste. Visual Examination (VE) Operators are qualified to the WIPP certified program. VE
20 is conducted at the DPSs in accordance with a WIPP certified procedure. The scope of this
21 procedure is “to document the physical waste form, confirm the Waste Stream description and
22 Waste Matrix Code, document that no prohibited items are present, and estimate the weight of
23 the waste material parameters.” Additional characterization is performed at the AMWTP.
24 The characterization information from these processes is included in the updated AK package
25 by AMWTP for shipment to WIPP.



©: BMS
File: A07 - RCRA Camera Locations.dwg 09/18/18 - 9:20 AM Layout Name: TLOM-2
Plot: A07 - RCRA Camera Locations.dwg 09/18/18 11:21:11 AM

EXHIBIT D-7. WMF-1619 Retrieval Enclosure Camera Plan for SRP and DRP Operations

1 Any further WIPP prohibited items identified are segregated for return to AMWTP
2 separate from the debris waste being processed or treated on the box transfer pan within the
3 retrieval area. Evidence of, or potential for, free liquid generation is mitigated using the
4 addition of absorbent followed by a thorough mix using simple DPS based tools (scoops,
5 small shovels, small rakes, etc.). At this point the waste is hoisted in its tray liner, moved and
6 then lowered to a new drum attached to the DPS load out port. A radiological transfer sleeve
7 ensures no contamination is spread during the discharge to the drum.

8 The liner, a bottom discharge type, is discharged allowing the waste to transfer to the
9 drum. Absorbent is added in accordance with WIPP requirements. The tray liner is included
10 in a waste drum. The transfer sleeve is then cut using radiological control protocols, the drum
11 lid is attached, and contamination surveys performed on the outside of the drum. The drum is
12 then moved using a drum hauler within the airlock for staging in the utility room (Room 106)
13 or loaded on a trailer pending transfer to AMWTP.

14 If waste is spilled outside of containment pans (i.e., into the surrounding soil),
15 operations personnel immediately uses excavation equipment to collect the spilled material
16 and surrounding soil. Hand excavation by personnel in protective equipment may also be
17 used to collect the spilled material and surrounding soil. Inspections of the soil in the
18 immediate vicinity of waste tray secondary containment pans and the drum processing area is
19 conducted on each operating day using equipment-based cameras or cameras located
20 throughout the RA as shown in Exhibit D-7, to ensure collection of any waste/material that is
21 spilled. An inspection is also conducted if the treatment process is shut down for more than
22 five days. Direct visual inspection by personnel in PPE is completed during shifts when
23 waste processing occurs.

24 During processing some spillage of waste may occur in the DPS. This may occur
25 when the waste is being inspected, when waste is being mixed with absorbents, and/or when
26 the tray liners are hoisted. This spillage will accumulate at the bottom of the DPS. It is
27 cleaned out each operating day, or as necessary for operations, by collecting the spillage and
28 transferring to other waste handling trays, and/or sweeping the material outside of the DPS to
29 collection waste handling trays via the attached debris slides. This waste is returned to the
30 debris box containment for inclusion in repackaged waste.

1 It is a recognized situation that within the WMF-1619 waste exhumation facility,
2 contaminated soils are present from previous CERCLA operations. Periodic equipment
3 decontamination is performed within the retrieval area to achieve acceptable radiological
4 conditions on the equipment for required maintenance. Any portion of the equipment (e.g.,
5 excavator, telehandler forklift, loader) that is contaminated with CERCLA materials, such as
6 contaminated soils, may require that the material be removed through spray washing,
7 brushing, or other means, and the associated wastes placed within the CERCLA contaminated
8 area. Equipment surfaces may also come in contact with RCRA waste (e.g., excavator bucket
9 or thumb) and require decontamination. Waste material is removed through spray washing,
10 brushing, or other means. The waste material is collected in the excavator secondary
11 containment bucket or other secondary containment pan. The excavator secondary
12 containment bucket is a 4'-6" by 3' by 2'-6" carbon steel container with a crossbar for the
13 excavator to lift. Waste from decontamination of RCRA contaminated equipment is
14 contained within the bucket, absorbent added to liquids, and then packaged out of the facility
15 as RCRA waste.

16 **D-1a(2) Container Management Practices [IDAPA 58.01.05.008; 40 CFR 264.173]**

17 All containers remain closed except for when waste is being added or removed or the
18 drum rings/lids are removed for processing.

19 Containers are kept closed during storage, except to add or remove waste. Containers
20 are not be opened, handled, or stored in a manner that may cause them to rupture or to leak.
21 RWMC personnel follow established procedures designed to minimize the probability of
22 waste container accidents. Containers within the WMF-1617 and WMF-1619 Service Bay
23 (Rooms 101, 102, and 103) may have the lid open during the work shift as needed to support
24 radiological control. However, the containers are closed at the end of the work shift in
25 accordance with 40 CFR 264.173.

26 Waste is generally received at RWMC by flatbed semitrailers or trucks from AMWTP.
27 Waste movement between buildings within RWMC is generally by flatbed semitrailers, truck,
28 or forklift. Waste containers are identified for liquid treatment by the AMWTP after liquid is
29 identified during Real-Time-Radiography scanning. Waste containers are identified by
30 barcode and the data that ensures the container meets the RWMC Waste Acceptance Criteria

1 (e.g., vent date, assay value, container size, barcode number, no aerosol cans, no roaster
2 oxides) is electronically transferred from the AMWTP data management system to the ICP
3 data management system. After data is reviewed and the transfer is approved by RWMC, the
4 truck with an attached trailer with waste containers is transported through the gate that
5 separates the two facilities. Radiological surveys are performed, and the transfer is received
6 by RWMC. The trailer is then transported to WMF-698, WMF-1617, or WMF-1619.

7 Since the wastes transferred from AMWTP to RWMC, and RWMC to AMWTP all
8 occur within the RWMC area, the transfers are not subject to Department of Transportation
9 requirements. RWMC requires the containers to be in good condition, labeled in accordance
10 with RCRA regulations, and identified in the transfer paperwork.

11 Containers of hazardous and/or mixed waste and debris generated within the RWMC
12 perimeter and stored in the container storage areas are labeled with a unique identification
13 number for location tracking. The containers are labeled in accordance with the RCRA
14 regulations.

15 Container loading and unloading activities are conducted according to established
16 procedures for:

- 17 • Work Control
- 18 • Receipt, inspection, and documentation of waste
- 19 • Operations at WMF-698, WMF-1617 and WMF-1619
- 20 • Non-destructive assay
- 21 • Log keeping practices and checklists
- 22 • Radiation and contamination control
- 23 • Industrial and fire safety
- 24 • As low as reasonably achievable (ALARA) radiation protection program
- 25 • Truck waste container unloading

- General waste movement within RWMC.

D-1a(3) Secondary Containment System Design and Operation [IDAPA 58.01.05.012 and 58.01.05.008; 40 CFR 270.15(a) and (b), 264.175(a) through 264.175(d)]

Secondary containment for the containers that may contain free liquids (e.g., prior to processing) in WMF-698 storage area is provided by drum storage secondary containment pans described earlier in this section. All containers are elevated on a grate within the drum storage secondary containment pans so that should a leak/spill occur, the primary container is not in contact with any released material. The drum storage secondary containment pan capacity is greater than the required 10 percent of the maximum container capacity.

Secondary containment for the container storage areas of WMF-1617 and WMF-1619 is also provided through the use of container storage secondary containment pans described earlier in this section for those containers that may contain liquids (e.g., prior to processing). Containers are elevated within the pans, and the pans provide sufficient capacity greater than the required 10 percent of the maximum container capacity. Containers that have completed processing through the drum packaging stations and have been visually verified to not contain liquids, may be stored without secondary containment.

If liquid is observed in the drum storage secondary containment pan, the leaking container is identified and either overpacked or transferred into WMF-1617 or WMF-1619 for immediate processing. Liquids are removed from the spill containment pans through addition of absorbent and removal of the solidified material in a timely manner.

The storage and treatment of waste is conducted inside the WMF-698, WMF-1617 and WMF-1619 structures which prevent run-on of precipitation.

1 **D-1b. Containers without Free Liquids**

2 **D-1b(1) Test for Free Liquids [IDAPA 58.01.05.012; 40 CFR 270.15(b)(1)]**

3 Wastes without free liquids to be stored in the container storage areas in WMF-1617
4 and WMF-1619 Rooms 105 and 106 and WMF-698 will have completed visual verification of
5 the contents through the drum packaging station. Waste in lined waste trays within the RA
6 will have also undergone visual verification on the sorting table/box transfer pan to ensure
7 that no free liquids are present in the waste tray. All other wastes are managed as containing
8 liquids.

9 **D-1b(2) Description of Containers [IDAPA 58.01.05.008; 40 CFR 264.171 and 264.172]**

10 Containers to be used for waste storage include 55-gallon drums, 83-gallon drums, 85-
11 gallon drums, 110-gallon drums, soil sacks, standard waste boxes, cargo containers or other
12 waste boxes. If a container holding waste or debris is not in good condition, the waste or
13 debris is either overpacked or taken to the retrieval area for immediate processing.

14 Operating personnel visually inspect the container storage/staging areas in WMF-698,
15 WMF-1617, and WMF-1619 through direct visual examination, or by using cameras within
16 the retrieval area. Inspections are recorded and maintained at the facility for at least three
17 years. Details on inspections are provided in Attachment 4, Section F of this permit.

18 **D-8. Miscellaneous Units [IDAPA 58.01.05.012 and 58.01.05.008; 40 CFR 270.23 and**
19 **264.601]**

20 Processing the SRP waste at the WMF-1617 and WMF-1619 facilities is performed in
21 three miscellaneous treatment units: the Retrieval Area (X99), the DPS stations (X99), and the
22 drum compactor (X99 and X02). Miscellaneous storage (X99) in the RA consists of staging
23 waste within secondary containment prior to processing and prior to the DPS or drum
24 compactor. The Retrieval Area includes the following activities: opening waste containers,
25 staging waste in the retrieval area associated with waste processing activities, removing waste
26 from the container onto the sorting table, segregating/sorting waste, venting containers,
27 opening/crushing inner containers with liquid content, absorbent addition for liquids,
28 segregation/treatment of WIPP prohibited items, staging empty drums and ancillaries (drums,
29 lids), wiping sludge from drum exteriors,

1 compacting/crushing empty containers with the excavator, and sizing waste to fit into
2 containers. The Drum Packaging Stations activities include segregation of prohibited items,
3 addition of absorbents to the waste in the tray as necessary, visual examination by WIPP-
4 qualified visual examiners to document compliance with the WIPP WAC, and placing the
5 waste into new containers. The Drum Compactor is used to compact drum carcasses and/or
6 liners and secondary waste, and also includes absorbent addition for any liquids from the
7 compaction process. These activities will allow the repackaged waste to meet the WIPP
8 WAC.

9 Processing the DRP waste at WMF-1619 is performed in miscellaneous treatment
10 units: the Retrieval Area (X99), the DPS stations (X99), and the Service Bay (X99).
11 Miscellaneous storage (X99) in the RA consists of staging waste within secondary
12 containment prior to processing and prior to the DPS. The Retrieval Area includes the
13 following activities: opening waste containers, staging waste in the retrieval area associated
14 with waste processing activities, removing waste from the container on the box transfer pan,
15 segregating/sorting waste, venting containers, opening/crushing inner containers with liquid
16 content, absorbent addition for liquids, segregation/treatment of WIPP prohibited items,
17 compacting/crushing empty containers with the excavator, and sizing waste to fit into new
18 containers. The Drum Packaging Stations activities include segregation of prohibited items,
19 addition of absorbents to the waste in the tray as necessary, visual examination by WIPP-
20 qualified visual examiners to document compliance with the WIPP WAC, and placing the
21 waste into new containers. These activities will allow the repackaged waste to meet the WIPP
22 WAC.

23 **D-8a. Description of Miscellaneous Units [IDAPA 58.01.05.012; 40 CFR 270.23(a)(1)**
24 **and (2)]**

25 The description of the WMF-1617 and WMF-1619 facilities and miscellaneous unit
26 processes are detailed earlier in this section.

1 **D-8b. Environmental Performance Standards for Miscellaneous Units [IDAPA**
2 **58.01.05.008 and 58.01.05.012; 40 CFR 264.601 and 270.23(c)]**

3 The miscellaneous treatment processes and storage located in WMF-1617 (RA, DPSs,
4 and drum compactor) and WMF-1619 (RA, DPSs, and Service Bay) are located, designed,
5 and operated in a manner to preclude the release of hazardous waste or hazardous constituents
6 that may have adverse effects on human health or the environment. The WMF-1617 and
7 WMF-1619 structures, and secondary containment pans (waste tray secondary containment
8 pans, sorting table secondary containment pan, drum compactor secondary containment pan,
9 DPSs, Box Transfer Pan), are configured, including a ventilation system for confinement of
10 radioactive and hazardous constituents, to prevent particulate releases to the environment.
11 Administrative/engineering controls for WMF-1617 and WMF-1619 provide additional
12 assurance that hazardous materials are not released to the environment.

13 No viable pathway exists for migration of hazardous waste or hazardous constituents
14 from the mixed waste treated in the miscellaneous treatment units located in WMF-1617 and
15 WMF-1619 to ground water, and/or surface water, as all treatment is conducted within areas
16 that have impervious secondary containment. During HWMA/RCRA waste processing, any
17 spilled waste is cleaned up at the time the spill occurs. Procedural steps mandate removal of
18 all spilled material and any surrounding stained soils. Soils approximately 4” beyond the
19 extent of visible soil staining are removed in the event of a liquid spill to ensure that all
20 spilled material is removed. The waste/soil is removed using the excavator equipment, or
21 personnel in PPE with shovels. The collected material is returned to the sorting table or the
22 lined waste tray.

23 A potential pathway for release of waste constituents is through the exhaust air of the
24 WMF-1617 or WMF-1619 ventilation system. However, since all the waste to be processed
25 is radioactive mixed waste IDAPA 58.01.05.008 (40 CFR 264 Subpart CC) is not applicable.
26 Any radiological release would be limited to the period during which waste is being actively
27 treated. The minimization of release of radiological constituents through the HEPA-filtered
28 exhaust air system that potentially could have adverse effects on human health or the
29 environment is accomplished by the following:

1 (1) The treatment processes are controlled to minimize dust and airborne
2 particles.

3 (2) As a second stage of entrapment, any escaping waste constituents would
4 then have to pass through banks of HEPA filters. HEPA filters would trap any
5 particulate that may contain hazardous constituents.

6 (3) The ventilation systems have been proven effective in seven years of
7 operations.

8 **D-8b(1) Miscellaneous Unit Wastes [IDAPA 58.01.05.008; 40 CFR 264.601(a)(1),**
9 **264.601(b)(1), and 264.601(c)(1)]**

10 The wastes to be treated in WMF-1617 and WMF-1619 miscellaneous treatment units
11 are sludge or debris wastes that are currently managed at the AMWTP. The waste may
12 contain free liquids or WIPP-prohibited items. The miscellaneous treatments are designed to
13 make the final waste package acceptable for disposition to WIPP or other acceptable waste
14 disposal sites after return to AMWTP. The chemical characteristics of the wastes are
15 described in Attachment 2, Section C of this permit.

16 **D-8b(2) Containment System [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR**
17 **264.601(b)(2) and 270.23(a)(2)]**

18 The WMF-1617 and WMF-1619 structures and miscellaneous units (RA, DPSs, drum
19 compactor) are designed and operated to prevent the spread of contamination during treatment
20 activities. The facilities are designed to operate under negative pressure drawing air from less
21 to more contaminated areas. The ventilation air is filtered through HEPA filters prior to
22 exhaust. Secondary containment (container storage secondary containment pans, waste tray
23 secondary containment pans, sorting table secondary containment pan, drum compactor
24 secondary containment pan, DPSs, Box Transfer Pan, secondary containment pans) are used
25 to contain any liquids present within the waste during treatment.

1 **D-8b(3) Site Air Conditions [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR**
2 **264.601(c)(4) and (5), and 270.23(b)]**

3 The climatology and meteorology at the INL is described in *DOE Programmatic*
4 *Spent Nuclear Fuel Management and INEEL Environmental Restoration and Waste*
5 *Management Programs Final Environmental Impact Statement* (DOE/EIS – 0203F, Volume
6 1, Appendix B). A copy of this document has already been provided to DEQ.

7 **D-8b(4) Prevention of Air Emissions [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR**
8 **264.601(c)(2) and 270.23(a)(2)]**

9 The WMF-1617 and WMF-1619 miscellaneous units are designed to prevent the
10 spread of radiological contamination during treatment activities and are located within
11 secondary containment pans. HEPA-filtered exhaust ventilation is provided for WMF-1617
12 and WMF-1619 and the negative pressure induces ventilation through the attached airlock.
13 The exhaust ducts and fans are located to draw air from the least contaminated areas into the
14 most potentially contaminated areas. Fixed filter air samplers are located around the perimeter
15 of the building and continuous air monitors (CAMs) with alarms are also provided for each
16 discharge path (local filter/fan exhaust) to monitor for airborne radioactivity. Radiological
17 control technicians (RCTs) routinely count the perimeter sampler filters for radioactive
18 contamination. If airborne radiation above normal background levels is detected, the results
19 are evaluated and remedial actions are taken as appropriate to minimize the spread of
20 contamination and to ensure operational control, worker protection, and environmental
21 protection.

22 The HEPA filters remove approximately 99% of the particles in the exhaust air. The
23 differential pressure across the HEPA filters is recorded. The filters are changed due to
24 radiological loading and pressure drop. The filtered exhaust air is then released to the
25 atmosphere.

26 Since the waste to be treated/stored is a radioactive mixed waste, it is exempt from the
27 requirements of IDAPA 58.01.05.008 (40 CFR 264, Subpart CC).

1 **D-8b(5) Operating Standards [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR**
2 **264.601(c)(3) and 270.23(a)(2)]**

3 For information on the operating characteristics of the retrieval area, drum packaging
4 stations, and drum compactor see Section D above.

5 **D-8b(6) Site Hydrogeologic Conditions [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR**
6 **264.601(a)(2), (3), and (4), 264.601(b)(3) and (5), and 270.23(b)]**

7 The hydrology conditions at the INL are addressed in the *DOE Programmatic Spent*
8 *Nuclear Fuel Management and INEEL Environmental Restoration and Waste Management*
9 *Programs Final Environmental Impact Statement* (DOE/EIS – 0203F, Volume 1, Appendix
10 B). A copy of this document has already been provided to DEQ.

11 **D-8b(7) Site Precipitation [IDAPA 58.01.05.008; 40 CFR 264.601(b)(4)]**

12 Site precipitation is addressed in the *DOE Programmatic Spent Nuclear Fuel*
13 *Management and INEEL Environmental Restoration and Waste Management Programs Final*
14 *Environmental Impact Statement* (DOE/EIS – 0203F, Volume 1, Appendix B). A copy of this
15 document has already been provided to DEQ.

16 **D-8b(8) Groundwater Usage [IDAPA 58.01.05.008; 40 CFR 264.601(a)(5)]**

17 Groundwater usage at the INL is addressed the *DOE Programmatic Spent Nuclear*
18 *Fuel Management and INEEL Environmental Restoration and Waste Management Programs*
19 *Final Environmental Impact Statement* (DOE/EIS – 0203F, Volume 1, Appendix B). A copy
20 of this document has already been provided to DEQ.

21 **D-8b(9) Surface Waters and Surface Soils [IDAPA 58.01.05.008; 40 CFR 264.601(b)(6),**
22 **(7), and (8)]**

23 Surface water and surface soils at the INL are addressed in the *DOE Programmatic*
24 *Spent Nuclear Fuel Management and INEEL Environmental Restoration and Waste*
25 *Management Programs Final Environmental Impact Statement* (DOE/EIS – 0203DF, Volume
26 1, Appendix B). A copy of this document has already been provided to DEQ.

1 **D-8b(10) Area Land Use [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR 264.601(a)(6)**
2 **and (b)(9), and 270.23(b)]**

3 The area land use is addressed in the *DOE Programmatic Spent Nuclear Fuel*
4 *Management and INEEL Environmental Restoration and Waste Management Programs Final*
5 *Environmental Impact Statement* (DOE/EIS – 0203F, Volume 1, Appendix B). A copy of this
6 document has already been provided to DEQ.

7 **D-8b(11) Migration of Waste Constituents [IDAPA 58.01.05.008; 40 CFR**
8 **264.601(a)(7)]**

9 For reasons discussed in Sections D-8b, D-8b(1), D-8b(2), and D-8b(4), the potential
10 is extremely small for deposition or migration of waste constituents into subsurface physical
11 structures and into the root zone of food chain crops and other vegetation.

12 **D-8b(12) Evaluation of Risk to Human Health and the Environment [IDAPA**
13 **58.01.05.008; 40 CFR 264.601(a)(8) and (9), 264.601(b)(10) and (11), and**
14 **264.601(c)(6) and (7)]**

15 For reasons discussed in Sections D-8b, D-8b(2), and D-8b(4), the potential is
16 extremely small for any of the waste constituents to be a risk to human health or the
17 environment.

HWMA/RCRA PART B PERMIT

FOR THE

IDAHO NATIONAL LABORATORY

BOOK 3A

Volume 18 –Radioactive Waste Management Complex

ATTACHMENT 2

SUBSURFACE DISPOSAL AREA (SDA)

WMF-698
WMF-1617
WMF-1619

SECTION C - WASTE ANALYSIS PLAN

Revision Date: December 17, 2019

C. WASTE CHARACTERISTICS

The WMF-698, WMF-1617, and WMF-1619 storage and treatment areas will follow the requirements of waste characterization found in Attachment 2 in Book 1 of this permit for characterization of any secondary wastes that are generated.

The waste that is accepted from AMWTP for SRP treatment and repackaging includes Item Description Codes (IDCs) from the S3000 (homogeneous solids) and S4000 (soil/gravel) waste groups. The waste to be accepted from AMWTP will be addressed in in the “Waste Matrix Code Reference Manual,” RPT-TRUW-05, and “AMWTP Waste Stream Designations,” RPT-TRUW-12. The current revisions to these reports are maintained as part of the operating record on the Electronic Document Management System (EDMS).

Prior to accepting IDCs for treatment, the following must be complete: acceptable chemical compatibility evaluation, acceptable knowledge (AK) documentation, and a review confirming the hazardous waste numbers associated with each IDC are included in the permit.

Based on the waste acceptance process described above, wastes with the RCRA characteristics of ignitibility (D001) or reactivity (D003) as defined in 40 CFR 261.21, “Characteristics of ignitibility,” and 40 CFR 261.23, “Characteristics of Reactivity,” are not permitted and will not be accepted for treatment or storage at WMF-698, WMF-1617, and WMF-1619. Chemical compatibility evaluations are made based on the waste characterization data prior to acceptance of IDCs for treatment and storage. Based on the compatibility evaluations, treatment/storage operations will not intermix wastes that are incompatible. Chemical compatibility evaluations will be part of the operating record on EDMS. Based on AK, RTR, and assay, containers that have identified pressurized aerosol cans, pyrophoric waste, as defined in Permit Condition VI.C.1., and roaster oxides wastes will not be accepted for treatment. Waste containers identified through AK or RTR as potentially pyrophoric, (i.e., containing metal fines, turnings, shavings, etc.) will not be accepted for treatment in WMF-1619.

Some of the waste streams have the potential to contain liquids that exhibit the characteristic of corrosivity (D002). If found, the liquids will be absorbed, and the corrosivity characteristic removed to ensure compliance with the WIPP acceptance criteria. The efficacy of the selected absorbents, Oil-Dri, Aquaset, and Petroset, for the treatment of this waste stream, is detailed in “Managing Free Liquid in

1 Newly Generated Waste Drums,” RPT-228, Revision 0, dated June 14, 2007. This report is provided in
2 Book 3B, Appendix 3 of this Permit.

3 The treatment activities to be performed under this permit will affect the current characterization
4 information (e.g., liquid removal). Once in the DPS, WIPP qualified Visual Examiners (VEs) thoroughly
5 inspect the waste. Visual Examination (VE) Operators are qualified to the WIPP certified program, and
6 VE is conducted at the DPSs in accordance with a WIPP certified procedure. The scope of this procedure
7 is “to document the physical waste form, confirm the Waste Stream description and Waste Matrix Code,
8 document that no prohibited items are present, and estimate the weight of the waste material parameters.”
9 Additional characterization will be performed at the AMWTP. The characterization information from
10 these processes will be included in the updated AK package by AMWTP for shipment to WIPP.

HWMA/RCRA PART B PERMIT
FOR THE
IDAHO NATIONAL LABORATORY

Volume 18 – Book 3A – Radioactive Waste Management Complex

ATTACHMENT 3

Subsurface Disposal Area WMF-698, WMF-1617 and WMF-1619

Section F - Procedures to Prevent Hazards
and
Section F-1 - Security

Revision Date: February 12, 2016

CONTENTS

F. PROCEDURES TO PREVENT HAZARDS.....	1
F-1. Security	1
F-1a. Security Procedures and Equipment	1
F-1a(1) 24-Hour Surveillance System	2
F-1a(2) Barrier and Means to Control Entry.....	2
F-1a(2)(a) Barrier.....	2
F-1a(2)(b) Means to Control Entry	2
F-1a(3) Warning Signs.....	3

1 **F. PROCEDURES TO PREVENT HAZARDS**

2 The waste management units addressed in this permit are designed and operated to minimize
3 exposure of hazardous constituents to the general public, operating personnel, and the environment. This
4 section describes the procedures and equipment/structures used at these units to help prevent, mitigate, or
5 respond to environmental or human health hazards. Also described in this section are the inspection plans
6 and schedules at these units to ensure proper maintenance and operation.

7 The waste management units addressed in this permit are located at the Radioactive Waste
8 Management Complex (RWMC), Subsurface Disposal Area (SDA), Buildings WMF-698, WMF-1617,
9 WMF-1619 and Outside Storage Areas. Book 3A, Attachment 1 of this permit describes the operations
10 of these units.

11 **F-1. Security**

12 Specific security measures taken for the RWMC SDA include fencing, warning signs, keycard
13 access or personnel sign-in, and building locks.

14 **F-1a. Security Procedures and Equipment [IDAPA 58.01.05.008 and 58.01.05.012;
15 40 CFR 264.14 and 270.14(b)(4)]**

16 A security system, physical control procedures, and equipment control access to the RWMC
17 SDA. The security system is operated by a security force under a contract with the U. S. Department of
18 Energy, Idaho Operations Office (DOE-ID).

19 The security force's operations are consistent with DOE-ID directives and orders on access
20 control. DOE operates a personnel security clearance program to ensure that employees that are required
21 to have a clearance to perform their duties are evaluated and cleared consistent with DOE-ID security
22 policies.

23 Fencing, guarded gates and uniformed guards with communication devices are used at RWMC to
24 provide facility security. There are internal communication devices, such as phones or two-way radios in
25 occupied buildings at the RWMC SDA. The same communication devices are used for communication
26 outside the plant. The RWMC SDA uses radio network announcements for announce critical information
27 regarding security and safety. A siren system is used for evacuation and take cover alerts.

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

2 Security at the RWMC is maintained by a staff of trained security guards, who monitor the entry
3 and egress of people and material from the RWMC facility. The main RWMC guard gate (located at
4 WMF-637) at the RWMC is staffed with guards 24 hours a day, seven days a week. There are other gates
5 into the RWMC, and they are either locked or staffed with guards. The guards also perform other security
6 functions within the plant premises, including patrolling the perimeter fence and areas throughout the
7 RWMC on a 24-hour basis.

8 **F-1a(2) Barrier and Means to Control Entry**

9 The treatment, storage, or disposal facilities (TSDFs) at RWMC SDA are enclosed within a
10 fence. All gates into RWMC are either locked or manned with security guards.

11 **F-1a(2)(a) Barrier [IDAPA 58.01.05.008; 40 CFR 264.14(b)(2)(I)]**

12 The RWMC facility is located approximately 42 air miles west of the largest nearby population
13 area, Idaho Falls, Idaho. The entire RWMC facility area is enclosed within a fence. There are gates in
14 the perimeter fences, and they are either locked or manned. The locked gates can be opened by patrols
15 when requested.

16 **F-1a(2)(b) Means to Control Entry [IDAPA 58.01.05.008; 40 CFR 264.14(b)(2)(ii)]**

17 Employees, sub-contractors, or vendors that have completed required access training and have
18 keycard access are not escorted in the general RWMC interior.

19 Individuals that have the required access training but do not have key card access, sign an
20 “Employee Log” and are allowed into RWMC without being escorted.

21 Individuals that do not have the required access training and do not have keycard access are
22 escorted and sign a “Visitor Log” to gain access to RWMC.

23 These entry procedures into the RWMC prevent access into Hazardous Waste Management Act
24 (HWMA)/Resource Conservation and Recovery Act (RCRA)-regulated units by the general public and
25 visitors.

1 For accountability reasons, all persons entering the RWMC must either enter through the card
2 reader turnstile as they enter or sign the RWMC entrance log (“Visitor Log” or “Employee Log” as
3 applicable). When personnel leave the RWMC, they exit through the card reader turnstiles or sign out at
4 the guard gate.

5 **F-1a(3) Warning Signs [IDAPA 58.01.05.008; 40 CFR 264.14(c)]**

6 Warning signs that are visible and legible from at least 25 ft are posted at guard gates and on the
7 fence around the RWMC SDA. Entrances into HWMA/RCRA-regulated storage or treatment areas will
8 have, at a minimum, signs reading “**DANGER**--Unauthorized Personnel Keep Out.”

HWMA/RCRA PART B PERMIT
FOR THE
IDAHO NATIONAL LABORATORY

BOOK 3A
Volume 18 –Radioactive Waste Management Complex

ATTACHMENT 4

SUBSURFACE DISPOSAL AREA (SDA)
WMF-698
WMF-1617
WMF-1619

Section F-2

INSPECTION SCHEDULE

Revision Date: December 17, 2019

TABLE OF CONTENTS

F-2. Inspection Schedule	1
F-2a. General Inspection Requirements [IDAPA 58.01.05.012 and 58.01.05.008; 40 CFR 270.14(b)(5), 264.15, 264.33, 264.174, 264.195, and 264.254]	1
F-2a(1) Types of Problems [IDAPA 58.01.05.008; 40 CFR 264.15(b)(3)]	2
F-2a(2) Frequency of Inspection [IDAPA 58.01.05.008; 40 CFR 264.15(b)(4)]	2
F-2b. Specific Process Inspection Requirements	2
F-2b(1) Container Inspection [IDAPA 58.01.05.008; 40 CFR 264.174] .	2
F-2b(8) Miscellaneous Unit Inspections [IDAPA 58.01.05.012; 40 CFR 270.14(b)(5)]	3

APPENDICES

Appendix F-1. Inspection Schedule for WMF-698, WMF-1617, WMF-1619, Outside Storage
Areas and Miscellaneous Treatment and Storage Areas

Appendix F-2. Examples of Inspection Forms

1 **F-2. Inspection Schedule**

2 **F-2a. General Inspection Requirements [IDAPA 58.01.05.012 and 58.01.05.008;**
3 **40 CFR 270.14(b)(5), 264.15, 264.33, 264.174, 264.195, and 264.254]**

4 The schedules for inspecting equipment vital in preventing, detecting, and responding to
5 environmental or human health hazards are summarized in Appendix F-1. Results of inspections are
6 recorded on forms or operating logs. Examples of inspection forms are found in Appendix F-2.

7 Inspection records are placed in the appropriate RCRA inspection logs as part of the operating
8 record. The records are stored at RWMC or other INL approved records storage area and are retained for
9 the life of the regulated unit.

10 Inspection records include the time and date of the inspection, the printed name and signature of
11 the inspector, a notation of observations made, and the date and nature of any repairs or other remedial
12 actions. The inspection forms show the inspections, frequencies, and responsibilities. Examples of the
13 inspection forms are provided in Appendix F-2. Other, similar forms containing the same substantive
14 information may be used to document these inspections.

15 **WMF-1617 and WMF-1619 Miscellaneous Treatment Processes**

16 For the WMF-1617 and WMF-1619 miscellaneous treatment processes addressed in this permit,
17 trained personnel inspect and/or monitor the equipment and processing locations as summarized in
18 Appendix F-1. The process areas are visually inspected on a daily basis during operations by the
19 operations personnel, or every 5 days during extended shut down periods.

20 **WMF-698, WMF-1617, WMF-1619, Outside Storage Areas Container Storage, and WMF-1617 and**
21 **WMF-1619 Miscellaneous Storage**

22 The WMF-698, WMF-1617, WMF-1619, Outside storage areas container storage areas, and
23 WMF-1617 and WMF-1619 Miscellaneous storage areas are visually inspected weekly to ensure the
24 integrity of the containers stored. Cameras may also be used to perform inspections of the container
25 staging areas in the WMF-1617 WMF-1619 Retrieval Areas. Loading/unloading areas are inspected on a
26 daily basis when in use.

27 The inspections are intended to detect deterioration or conditions that threaten human health or
28 the environment. The inspection records include conditions noted within the treatment and storage areas

1 as well as the general building. The inspection records list completed inspections and any remedial action
2 status.

3 **F-2a(1) Types of Problems [IDAPA 58.01.05.008; 40 CFR 264.15(b)(3)]**

4 The inspection schedules found in Appendix F-1 list types of problems looked for during
5 inspections.

6 **F-2a(2) Frequency of Inspection [IDAPA 58.01.05.008; 40 CFR 264.15(b)(4)]**

7 The frequency of inspections or observations, and the inspecting organization are listed in the
8 schedules in Appendix F-1.

9 If a problem is found during an inspection surveillance or performance of a preventive
10 maintenance inspection or action in progress, it is reviewed and confirmed by the applicable supervision
11 or systems engineer. If the deficiency warrants immediate attention, shift supervision will be informed,
12 and if necessary, the affected process will be immediately shut down. All items observed during an
13 inspection that require repair, replacement, corrective action, or other attention are documented on the
14 associated record sheet and tracked until final resolution through the RCRA remedial process. If the
15 responsible supervision determines the need, an engineering evaluation will be conducted to determine
16 whether operations can proceed, repair must be made, or materials must be replaced. Environmental and
17 facility personnel work together to decide whether or not a remedial action is required and to plan the
18 required action. Remedial actions are documented.

19 In those cases where an off-normal operational event (such as ventilation upset and potential
20 radioactive contamination) prevents access to an area where inspections are performed, a RCRA remedial
21 will be opened and the remedial will be noted in the spaces on the inspection forms where the inspections
22 or readings would normally be recorded. The RCRA remedial will be closed, and inspections resumed, as
23 soon as the upset conditions have been corrected and the area released for re-entry.

24 **F-2b. Specific Process Inspection Requirements**

25 **F-2b(1) Container Inspection [IDAPA 58.01.05.008; 40 CFR 264.174]**

26 Facility personnel visually inspect the waste containers and the container and miscellaneous storage
27 areas (WMF-698, WMF-1617 Airlock, WMF-1617 Retrieval Area, WMF-1619 Airlock, WMF-1619
28 Retrieval Area and Outside storage areas)

1 addressed in this permit on a weekly basis, when waste is present. During visual inspections, the waste
2 containers/trays are viewed for signs of deterioration, leaks, liquids, etc., as identified on the inspection
3 forms.

4 **F-2b(8) Miscellaneous Unit Inspections [IDAPA 58.01.05.012; 40 CFR 270.14(b)(5)]**

5 An inspection program for the miscellaneous treatment processes in WMF-1617 and WMF-1619
6 is in place to ensure compliance with the environmental performance standards specified in Section D-8
7 in Attachment 1 of this permit.

8 The WMF-1617 and WMF-1619 process ventilation systems are monitored for high differential
9 pressures in the HEPA filters as a part of normal operating procedures.

**Appendix F-1. Inspection Schedule for
WMF-698, WMF-1617, WMF-1619, and Outside Areas Container Storage
and Miscellaneous Treatment and Storage Areas**

Inspection Schedule for WMF-698

Equipment Inspected	Types of Problems or Observations	Frequency	Inspecting Organization
FIRE PROTECTION SYSTEM			
Fire detection and alarm system	Alarm condition	Monthly	Operations
Portable fire extinguishers • Class A-B-C Extinguishers •	Physical damage, charge, accessibility, seals	Monthly	Operations
EMERGENCY EQUIPMENT			
Spill control cabinet	Broken seals, inventory equipment if seal is broken, or annually to replace expired equipment	Monthly	Operations
Evacuation alarm system	Operation, coverage	Monthly	Operations
Communication devices/two-way radios	Operation, coverage	Daily when in use	Operations
OPERATING AND STRUCTURAL EQUIPMENT			
Access door warning signs	Warning signs in place	Weekly	Operations
Containment pans	Free of cracks and gaps, no hazardous liquids, no deterioration	Weekly	Operations
Containers	Condition, leaks – visual inspection of storage area	Weekly	Operations
Loading/Unloading	Condition, presence of hazardous solid or liquid waste spills.	Daily when loading/un-loading is occurring	Operations
SECURITY INSPECTIONS			
SDA Gates/fence and their signs	Missing, damaged or obstructed signs or fence	Semiannual	Operations
MONITORING EQUIPMENT			
Continuous Air Monitors (CAMs)	Inspect weekly in storage areas to ensure CAMs are operable.	Weekly in storage areas	Radiation Protection

Inspection Schedule for WMF-1617

Equipment Inspected	Types of Problems or Observations	Frequency	Inspecting Organization
FIRE PROTECTION SYSTEM			
Fire detection and alarm system	Alarm condition	Monthly	Operations
Dry chemical fire suppression system – Drum Repackaging Stations	Physical damage, charge, accessibility	Monthly	Operations
Dry chemical fire suppression system – located on mobile equipment	Physical damage, accessibility, and seals	Monthly	Operations
Portable fire extinguishers • Class A-B-C extinguishers • Class D extinguishers	Physical damage, charge, accessibility, and seals	Monthly	Shift Operations
EMERGENCY EQUIPMENT			
Eyewash stations	Accessibility, check for leaks	Monthly	Operations
Spill control cabinets	Broken seals, inventory equipment if seal is broken, or annually to replace expired equipment	Monthly	Operations
Evacuation alarm system	Operation, coverage	Monthly	Operations
Communication devices/two-way radios	Operation, coverage	Daily	Operations
OPERATING AND STRUCTURAL EQUIPMENT			
Access door warning signs	Warning signs in place	Weekly	Operations
Container storage/staging/miscellaneous storage areas	Deterioration, visible leaks, liquids	Weekly	Operations
Containers	Condition, leaks--visual inspection of storage/staging areas	Weekly	Operations
Loading/Unloading areas	Condition, presence of hazardous solid or liquid waste spills	Daily when waste is being loaded or unloaded	Operations
Miscellaneous Treatment Areas (Room 103 Drum Compactor, Room 105 Drum Packaging Stations, and Retrieval Area – drum/tray staging and sorting table)	Equipment condition, deterioration, liquids in secondary containment, non-conforming items	Daily each operating day or every 5 days during extended shutdown periods	Operations
SECURITY INSPECTIONS			
SDA Gates/fence and their signs	Missing, damaged, or obstructed signs or fence	Semiannual	Operations

Inspection Schedule for WMF-1617 (continued)

Equipment Inspected	Types of Problems or Observations	Frequency	Inspecting Organization
MONITORING EQUIPMENT			
Continuous Air Monitors (CAMs)	Radiological Protection: inspect daily to ensure CAMs are operable in treatment areas and waste loading/unloading areas when operating, and weekly in storage areas.	Daily in treatment areas and waste loading/unloading areas when operating Weekly in storage areas	Radiation Protection

Inspection Schedule for WMF-1619

Equipment Inspected	Types of Problems or Observations	Frequency	Inspecting Organization
FIRE PROTECTION SYSTEM			
Fire detection and alarm system	Alarm condition	Monthly	Operations
Dry chemical fire suppression system – Drum Repackaging Stations	Physical damage, charge, accessibility	Monthly	Operations
Dry chemical fire suppression system – located on mobile equipment	Physical damage, accessibility, and seals	Monthly	Operations
Portable fire extinguishers • Class A-B-C extinguishers • Class D extinguishers	Physical damage, charge, accessibility, and seals	Monthly	Shift Operations
EMERGENCY EQUIPMENT			
Eyewash stations	Accessibility, check for leaks	Monthly	Operations
Spill control cabinets	Broken seals, inventory equipment if seal is broken, or annually to replace expired equipment	Monthly	Operations
Evacuation alarm system	Operation, coverage	Monthly	Operations
Communication devices/two-way radios	Operation, coverage	Daily	Operations
OPERATING AND STRUCTURAL EQUIPMENT			
Access door warning signs	Warning signs in place	Weekly	Operations
Container storage/staging/miscellaneous storage areas	Deterioration, visible leaks, liquids	Weekly	Operations
Containers	Condition, leaks--visual inspection of storage/staging areas	Weekly	Operations
Loading/Unloading areas	Condition, presence of hazardous solid or liquid waste spills	Daily when waste is being loaded or unloaded	Operations
Miscellaneous Treatment Areas (Room 103 Drum Compactor, Room 105 Drum Packaging Stations, and Retrieval Area – drum/tray/box staging, box transfer pan)	Equipment condition, deterioration, liquids in secondary containment, non-conforming items	Daily each operating day or every 5 days during extended shutdown periods	Operations
SECURITY INSPECTIONS			
SDA Gates/fence and their signs	Missing, damaged, or obstructed signs or fence	Semiannual	Operations

Inspection Schedule for WMF-1619 (continued)

Equipment Inspected	Types of Problems or Observations	Frequency	Inspecting Organization
MONITORING EQUIPMENT			
Continuous Air Monitors (CAMs)	Radiological Protection: inspect daily to ensure CAMs are operable in treatment areas and waste loading/unloading areas when operating, and weekly in storage areas.	Weekly in storage areas/Daily in treatment areas and waste loading/unloading areas when operating	Radiation Protection

Inspection Schedule for Outside Container Storage Areas

Equipment Inspected	Types of Problems or Observations	Frequency	Inspecting Organization
OPERATING AND STRUCTURAL EQUIPMENT			
Containers	Condition, leaks – visual inspection of storage area	Weekly	Operations
Loading/Unloading areas	Condition, presence of hazardous solid or liquid waste spills	Daily when waste is being loaded or unloaded	Operations

APPENDIX F-2 EXAMPLES OF INSPECTION FORMS

WMF-698

- FRM-1378. WMF-698 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION (Rev. 1)
- FRM-1379. WMF-698 WEEKLY RCRA INSPECTIONS (draft Rev. 3)
- FRM-1380. WMF-698 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS (Rev. 3)

WMF-1617

- FRM-1376. WMF-1617 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION (Rev. 1)
- FRM-1377. WMF-1617 TREATMENT AREA RCRA DAILY INSPECTION (Rev. 8)
- FRM-1375. WMF-1617 WEEKLY RCRA INSPECTIONS (Rev. 7)
- FRM-1374. WMF-1617 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS (Rev. 6)
- FRM-1367. WASTE CONTAINER INVENTORY SHEET and RCRA EMPTY VERIFICATION (Rev. 11)

WMF-1619

- FRM-1812. WMF-1619 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION (Rev. 0)
- FRM-1811. WMF-1619 WEEKLY RCRA INSPECTIONS (Rev. 4)
- FRM-1809. WMF-1619 TREATMENT AREA RCRA DAILY INSPECTION (Rev. 5)
- FRM-1810. WMF-1619 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS (Rev. 2)
- FRM-418. DEBRIS REPACK PROJECT RCRA EMPTY CONTAINER VERIFICATION (Rev. 0)

WMF-1621

- FRM-409. WMF-1621 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION (Rev. 0)

WMF-698 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION

 Signature/Date

Date: _____ Time: _____

Reviewed the last completed form FRM-1378(Initials): _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-1378, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

WMF-698 Trailer Loading/Unloading Area ¹	Condition (circle one)	Comments
Loading and Unloading area is free of leaks and spills (solid or liquid).	YES/NO	
Physical condition of Loading/Unloading area is satisfactory.	YES/NO	
Radio or telephone tested and clear two-way communication were established.	YES/NO	

¹Loading and Unloading area must be inspected daily when in use after completion of the loading/unloading activities.

Comments: _____

Open RCRA Remedials

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

Nature of Any Repairs or Other Remedial Actions	
Repairs / Remedial Actions Complete or Not Required. Shift Supervisor Signature / Date	

WMF-698 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION

Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature¹	SS Review Date

¹If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

WMF-698 WEEKLY RCRA INSPECTIONS

 Signature/Date

Date: _____ Time: _____

Reviewed the last completed form FRM-1379 (Initials): _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-1379, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

Time inspection is started:	
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WMF-698 Storage Area ¹	Condition (circle one)	Comments
Radio or telephone tested and clear two-way communications were established.	YES/NO	
All four exit doors have signs posted "DANGER Unauthorized Personnel Keep Out" on the outside.	YES/NO	
Spill pans/secondary containment trays are free of deterioration (cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), visible waste (liquids or solids) or leaks.	YES/NO/NA	
Visible containers show no physical damage or deterioration (cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with "Hazardous Waste" or "Mixed Hazardous Waste".	YES/NO/NA	
Container arrays, Minimum aisle space of 3 ft between container arrays and between container arrays and exterior walls; Minimum aisle space of 20 ft in center aisle; Drums stacked no more than 2 drums high ²	YES/NO/NA	

¹Mark NA if no containers are being stored.

²Maintain aisle and perimeter spaces free of obstructions.

WMF-698 WEEKLY RCRA INSPECTIONS

Comments: _____

Open RCRA Remedials

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

Nature of Any Repairs or Other Remedial Actions	
Repairs / Remedial Actions Complete or Not Required. Shift Supervisor Signature / Date	

Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature¹	SS Review Date

¹ If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

WMF-698 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS

 Signature/Date

Inspection Date: ____/____/____ Time Start: _____

Reviewed the last completed form FRM-1380 (Initials): _____

Record spill cabinet tamper seal number from last completed FRM-1380: _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-1380, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

Area	Requirement	Condition (circle one)	Comments
WMF-698 Area	Area Evacuation Siren is audible ¹	YES/NO	
WMF-698 Area	Fire detection and alarm system not in alarm	YES/NO	

¹ Monthly test of the evacuation siren is to be coordinated with Life Safety Systems personnel.

WMF-698 Fire Extinguishers			
Area	Requirement	Condition (circle one)	Comments
WMF-698 Interior North Exit Door	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green or red button is not popped	YES/NO	
WMF-698 Interior East Exit Door	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green or red button is not popped	YES/NO	
WMF-698 Interior South Exit Door	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green or red button is not popped	YES/NO	
WMF-698 Interior West Exit Door	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green or red button is not popped	YES/NO	

WMF-698 Spill Control Cabinet ²			
Area	Requirement	Condition (circle one)	Comments
WMF-698	Spill control Cabinet accessible	YES/NO	
WMF-698	Tamper Seal Intact	YES/NO	

²If inspecting during the month of October, break the tamper seal and inventory the cabinet using the inventory table on this form. After completing the inventory, place a new tamper seal on the spill cabinet and record the new tamper seal ID in the space provided. In other months, compare the tamper seal ID with the tamper seal ID recorded on the previous FRM-1380. If the tamper seal IDs are identical, no inventory is needed; circle NA on the inventory inspections. If the tamper seal ID is different, break the seal and inventory the cabinet using the inventory table on this page.

WMF-698 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS

WMF-698 Spill Control Cabinet	
Area	Requirement
WMF-698	Existing Tamper Seal ID

WMF-698 Spill Control Cabinet			
Area	Spill control Cabinet Inventory	Condition (circle one)	Comments
WMF-698	1 each Plastic Bucket	YES/NO/NA	
WMF-698	1 dozen Spill control pillows or absorbent socks	YES/NO/NA	
WMF-698	1 case Radioactive waste bags	YES/NO/NA	
WMF-698	5 Signs (such as CAUTION Acid or CAUTION Chemical Spill)	YES/NO/NA	
WMF-698	1 box pH indicator	YES/NO/NA	
WMF-698	1 each Shovel (flat head)	YES/NO/NA	
WMF-698	1 box Smear paper and envelopes	YES/NO/NA	
WMF-698	2 each Standard pencils and grease pencils	YES/NO/NA	
WMF-698	1 pad Paper	YES/NO/NA	
WMF-698	5 each Radiological tags or signs	YES/NO/NA	
WMF-698	1 spool Radiation rope or ribbon	YES/NO/NA	
WMF-698	Spill-X/Oil-Dri ® products (with scoop)	YES/NO/NA	
WMF-698	Solvent cleanup material	YES/NO/NA	
WMF-698	Tamper seal indicator installed after inventory	YES/NO/NA	
WMF-698	Newly installed tamper seal indicator ID ² : 		

Comments: _____

**WMF-698 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET
 AND FIRE EXTINGUISHERS**

Open RCRA Remedials

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

Nature of Any Repairs or Other Remedial Actions	Repairs / Remedial Actions Complete or Not Required. Shift Supervisor Signature / Date

Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature¹	SS Review Date

¹ If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

WMF-1617 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION

 Signature/Date

Date: _____ Time: _____

Reviewed the last completed form FRM-1376 (Initials): _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-1376, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

WMF-1617 Trailer Loading/Unloading Area ¹	Condition (circle one)	Comments
Loading and Unloading area is free of leaks and spills (solid or liquid).	YES/NO	
Physical condition of Loading/Unloading area is satisfactory.	YES/NO	
Radio or telephone tested and clear two-way communication was established.	YES/NO	

¹Loading and Unloading area must be inspected daily when in use after completion of the loading/unloading activities.

Comments: _____

Open RCRA Remedials

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

Nature of Any Repairs or Other Remedial Actions	
Repairs / Remedial Actions Complete or Not Required. Shift Supervisor Signature / Date	

WMF-1617 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION

Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature¹	SS Review Date

¹ If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

WMF-1617 TREATMENT AREA RCRA DAILY INSPECTION

Signature/Date

Dates: ____/____/____ through ____/____/____

Reviewed the last completed form FRM-1377(Initials): _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-1377, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Record time inspection is started							

	Monday (circle one)	Tuesday (circle one)	Wednesday (circle one)	Thursday (circle one)	Friday (circle one)	Saturday (circle one)	Sunday (circle one)
WMF-1617 General Area¹							
Radio or telephone tested and clear two-way communications were established.	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA

1. Circle NA if no inspection is required.

	Monday (circle one)	Tuesday (circle one)	Wednesday (circle one)	Thursday (circle one)	Friday (circle one)	Saturday (circle one)	Sunday (circle one)
WMF-1617 Sorting Table and associated Containment Pans^{2,3,10}							
Sorting table is free of deterioration (i.e., cracks, gaps or corrosion that would prevent it from providing containment and preventing leaks).	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Sorting table secondary containment trays are in proper position with no visible gaps between pans.	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Sorting Table containment pans are free of deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), and free of visible waste above deminimis amounts (liquids or solids).	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Containers/trays show no signs of physical damage or deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), or leaks.	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Soil surfaces in the Retrieval Area surrounding the sorting table secondary containment pans are free of visible waste (liquid or solid).	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Containers/trays are located in secondary containment.	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Inspection done visually (V) or by camera (C)?	V/C	V/C	V/C	V/C	V/C	V/C	V/C

2. Sorting Table and containment pans must be inspected daily if waste handling operations occur in the unit that day. A daily inspection is also required if waste remains in the sorting table or sorting table containment pans above deminimis amounts (see note 4 for definition of “deminimis”). If no inspection is required, the inspection may be marked NA by circling NA for all inspection items or by lining through the entire column (initial, date, and mark NA above line). In addition, include a note in the comments section stating the unit was not in use MM/DD/YY (SOM or designee).

3. If personnel in PPE are required to enter the RA, inspection of the RCRA areas will be completed by direct visual inspection.

4. Deminimis amounts, as used on this form, refers to waste residues in quantities that do not pose a threat to human health and the environment and consist of relatively small quantities of solid material that is difficult or impractical to remove from the containment pan using commonly employed methods such as shoveling, sweeping or vacuuming.

WMF-1617 TREATMENT AREA RCRA DAILY INSPECTION

WMF-1617 Drum/Tray Staging Arrays and Secondary Waste Soil Sacks Storage Areas^{4,5,6,10}	Monday (circle one)	Tuesday (circle one)	Wednesday (circle one)	Thursday (circle one)	Friday (circle one)	Saturday (circle one)	Sunday (circle one)
Containment pans are free of deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), and free of visible waste above de minimis amounts (liquids or solids).	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Containers/trays show no signs of physical damage or deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), or leaks.	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Soil surfaces in the Retrieval Area surrounding secondary containment pans and active waste transport pathways are free of visible waste (liquid or solid).	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Containers/trays are located in secondary containment.	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Secondary waste soil sacks are stored upright, are intact, and show no signs of physical damage or deterioration that would prevent them from providing containment for secondary waste.	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Inspection done visually (V) or by camera (C)?	V/C	V/C	V/C	V/C	V/C	V/C	V/C

5. Container/tray staging arrays must be inspected daily if waste handling operations occurred in the RA that day. Ensure any containers, waste trays, and containment pans in areas 1-6 and 8 and 9 on the map on Page 6 are inspected. Ensure any soil sacks in areas 7 and 10 on the map on Page 6 are inspected. (Inspections of containment pans for the DPS and sorting table area [not shown on map] are performed under the DPS Room 105 and sorting table portions of this form.) Circle NA if no waste was moved through the RA that day for all inspection items or line through the entire column (initial, date, and mark NA above line). In addition, include a note in the comments section stating no waste handling operations occurred in the RA MM/DD/YY (SOM or designee) Note: An inspection of all drum/tray staging arrays storing waste is required every 5 days regardless of operational activities.

6. If personnel in PPE are required to enter the RA, inspection of the RCRA areas will be completed by direct visual inspection.

WMF-1617 Treatment Area (DPS Room 105)^{7,10}	Monday (circle one)	Tuesday (circle one)	Wednesday (circle one)	Thursday (circle one)	Friday (circle one)	Saturday (circle one)	Sunday (circle one)
DPSs are free of leaks, spills, deterioration (that would prevent the DPS from performing the intended purpose).	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
DPS floor, debris slides, secondary containment trays below debris slides are free of deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks) and free of visible waste above de minimis amounts (liquids or solids).	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Concrete and soil surfaces surrounding the debris slides are free of visible waste (liquid or solid).	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA

7. Each DPS must be inspected daily if operations occur in the DPS system that day. A daily inspection is also required if waste remains in the DPS system (including the DPS floor, debris slides, trays under slides) above de minimis amounts (see note 4 above for definition of "de minimis"). If no inspection is required, circle NA for all inspection items or line through the entire column (initial, date, and mark NA above line). In addition, include a note in the comments section stating the unit was not in use MM/DD/YY (SOM or designee).

WMF-1617 TREATMENT AREA RCRA DAILY INSPECTION

WMF-1617 Treatment Area (Service Bay Room 103)^{8,9,10}	Monday (circle one)	Tuesday (circle one)	Wednesday (circle one)	Thursday (circle one)	Friday (circle one)	Saturday (circle one)	Sunday (circle one)
Drum compactor is free of spills (liquid or solid), deterioration.	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Compactor secondary containment pan is free of deterioration (i.e., cracks, gaps or corrosion that would prevent it from providing containment and preventing leaks), and free of visible waste above de minimis amounts (liquids or solids).	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Room 103 floor and stainless steel is free of visible waste spills (liquid or solid).	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Containers/trays are located in secondary containment.	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA	YES/NO/NA
Inspection done visually (V) or by camera (C)?	V/C	V/C	V/C	V/C	V/C	V/C	V/C

8. The Service Bay must be inspected daily if operations occur in the Service Bay that day. A daily inspection is also required if waste remains in the Service Bay treatment unit including the drum compactor, drum compactor containment, or stainless steel sheets on the floor above de minimis amounts (see note 4 above for definition of “de minimis”). If no inspection is required, circle NA for all inspection items or line through the entire column (initial, date, and mark NA above line). In addition, include a note in the comments section stating the Unit was not in use MM/DD/YY (SOM or designee).

9. If personnel in PPE are required to enter the RA, inspection of the RCRA areas will be completed by direct visual inspection.

10. If a containment pan or a miscellaneous treatment or storage unit (e.g., sorting table, primary or secondary containment pans, waste staging trays) is found to have deterioration such as cracks or gaps or corrosion that would prevent it from providing containment and preventing leaks, the unit is unfit for use and must be removed from service.

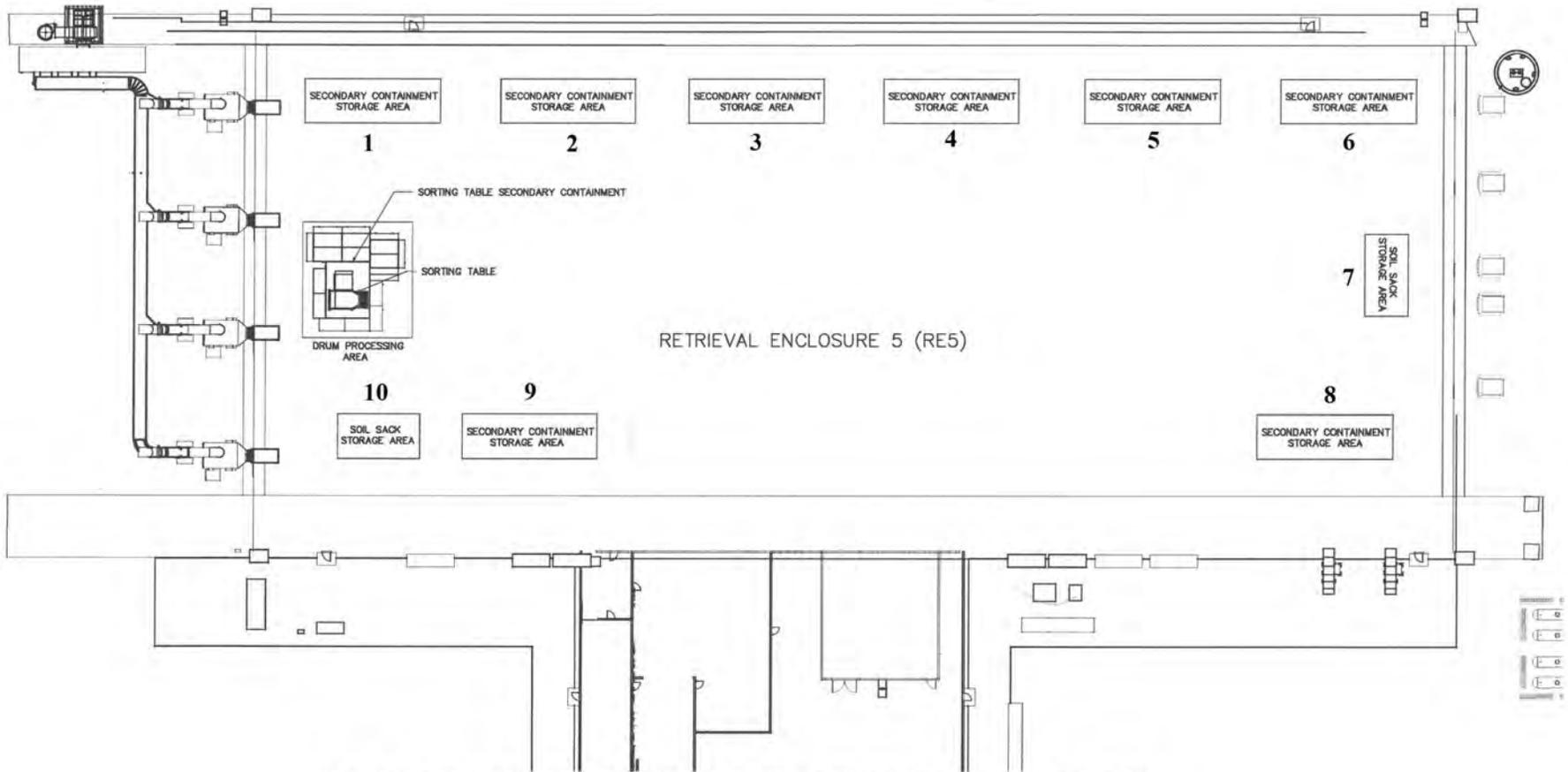
WMF-1617 TREATMENT AREA RCRA DAILY INSPECTION

Nature of Any Repairs or Other Remedial Actions	Repairs / Remedial Actions Complete or Not Required. Shift Supervisor Signature / Date

Day	Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature ¹	SS Review Date
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					

1. If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

WMF-1617 TREATMENT AREA RCRA DAILY INSPECTION



RE5 SECONDARY CONTAINMENT, SOIL SACK, AND STORAGE PROCESSING AREA PLAN

WMF-1617 WEEKLY RCRA INSPECTIONS

 Signature/Date

Date: _____ Reviewed last completed FRM-1375: (Initials): _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-1375, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

Record time inspection is started:	
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WMF-1617 General Area	Condition (circle one)	Comments
Radio or telephone tested and clear two-way communications were established.	YES/NO	

WMF-1617 Service Bay Room 101/102/103 ¹	Condition (circle one)	Comments
Containment pans are free of deterioration (cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks). ²	YES/NO/NA	
Containment pans are free of visible waste (liquid or solid) within the confines of the pan and the floor is free of visible waste spills (liquid or solid).	YES/NO/NA	
Containers show no physical damage, no deterioration (i.e., cracks, gaps, or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with "Hazardous Waste" or "Mixed Hazardous Waste".	YES/NO/NA	
Minimum 3 ft of aisle space between container rows and a minimum one foot between container and adjacent walls. ³	YES/NO/NA	

1. Mark NA if no containers are being stored.

2. Mark NA if no spill pallets/secondary containment are being used (i.e., no waste with free liquids).

3. Maintain aisle and perimeter spaces free of obstructions. For single containers or containers not in rows, ensure at least one side of each container has a minimum 3 ft unobstructed aisle to provide access to the container.

WMF-1617 WEEKLY RCRA INSPECTIONS

WMF-1617 Transfer Bay Room 104¹	Condition (circle one)	Comments
Containment pans are free of deterioration (cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks).	YES/NO/NA	
Containment pans are free of visible waste (liquid or solid) within the confines of the pan and the floor is free of visible waste spills (liquid or solid). ²	YES/NO/NA	
Containers show no physical damage, no deterioration (i.e., cracks, gaps, or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste”.	YES/NO/NA	
Minimum 3 ft of aisle space between container rows and a minimum one foot between container and adjacent walls. ³	YES/NO/NA	

1. Mark NA if no containers are being stored.

2. Mark NA if no spill pallets/secondary containment are being used (i.e., no waste with free liquids).

3. Maintain aisle and perimeter spaces free of obstructions. For single containers or containers not in rows, ensure at least one side of each container has a minimum 3 ft unobstructed aisle to provide access to the container.

WMF-1617 DPS Room 105¹	Condition (circle one)	Comments
Containers show no physical damage, no deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste”.	YES/NO/NA	
Minimum 3 ft of aisle space between container rows and a minimum one foot between container and adjacent walls. ²	YES/NO/NA	

1. Mark NA if no containers are being stored.

2. Maintain aisle and perimeter spaces free of obstructions. For single containers or containers not in rows, ensure at least one side of each container has a minimum 3 ft unobstructed aisle to provide access to the container.

WMF-1617 WEEKLY RCRA INSPECTIONS

WMF-1617 Storage Area Room 106¹	Condition (circle one)	Comments
All exit doors have signs posted “DANGER Unauthorized Personnel Keep Out” on the outside.	YES/NO	
Containment pans are free of deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks). ²	YES/NO/NA	
Containment pans are free of visible waste (liquid or solid) within the confines of the pan and the floor is free of visible waste spills (liquid or solid).	YES/NO/NA	
Containers show no physical damage, no deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste”.	YES/NO/NA	
Minimum 3 ft of aisle space between container rows and a minimum one foot between container and adjacent walls ³	YES/NO/NA	

1. Mark NA if no containers are being stored.

2. Mark NA if no spill pallets/secondary containment are being used (i.e., no waste with free liquids).

3. Maintain aisle and perimeter spaces free of obstructions. For single containers or containers not in rows, ensure at least one side of each container has a minimum 3 ft unobstructed aisle to provide access to the container.

WMF-1617 Outside Storage Area^{1,2}	Condition (circle one)	Comments
Containers show no physical damage, no deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste”.	YES/NO/NA	
Containers are elevated above the ground surface (e.g., on a pallet).	YES/NO/NA	
Physical condition of Loading/Unloading area is satisfactory.	YES/NO/NA	

1. Mark NA if no containers are being stored in a given storage area.

2. Inspection includes all containers (i.e., boxes, drums, cargo containers) stored on trailers or on the ground on the north and west sides of WMF-1617.

WMF-1617 WEEKLY RCRA INSPECTIONS

Operations Area Bridge Outside Storage Area¹	Condition (circle one)	Comments
Containers show no physical damage, no deterioration (cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste”.	YES/NO/NA	
Physical condition of Loading/Unloading area is satisfactory	YES/NO/NA	

1. Mark NA if no containers are being stored in a given storage area.

WMF-698 Outside Storage Area¹	Condition (circle one)	Comments
Containers show no physical damage, no deterioration (cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste”.	YES/NO/NA	
Physical condition of Loading/Unloading area is satisfactory	YES/NO/NA	

1. Mark NA if no containers are being stored in a given storage area.

WMF-1617 WEEKLY RCRA INSPECTIONS

Comments: _____

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

Nature of Any Repairs or Other Remedial Actions	Repairs / Remedial Actions Complete or Not Required. Shift Supervisor Signature / Date

Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature ¹	SS Review Date

1. If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

WMF-1617 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS

 Signature/Date

Inspection Date: ____/____/____ Time Start: _____

Reviewed the last completed form FRM-1374 (Initials): _____

Record spill cabinet tamper seal number from last completed FRM-1374: _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-1374, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

Area	Requirement	Condition (circle one)	Comments
WMF-1617 Area	Area Evacuation Siren is audible ¹	YES/NO	
	Fire detection and alarm system not in alarm	YES/NO	
WMF-1617 DPS	Monthly inspections completed on dry chemical fire suppression systems in the DPSs ²	YES/NO	
WMF-1617	Monthly inspections completed on dry chemical fire suppression systems on in-service mobile equipment ²	YES/NO	
SDA perimeter fence ³	The “DANGER Unauthorized Personnel Keep Out” signs on the RWMC SDA perimeter fence are in place.	YES/NO/NA	

¹ Monthly test of the evacuation siren system is to be coordinated with Life Safety Systems (LSS) personnel.

² Monthly inspections of the dry chemical fire suppression systems are coordinated with LSS personnel.

³ Signs must be located every 50 ft. Inspected semiannually in April and October. In other months circle NA.

WMF-1617 Fire Extinguishers			
Area	Requirement	Condition (circle one)	Comments
WMF-1617 Retrieval Area Exterior North East Exit Door (RE501)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1617 Retrieval Area Exterior South East Exit Door (RE502)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1617 Retrieval Area Exterior North West Exit Door (RE503)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	

FRM-1374

05/09/19

Rev. 6

Page 2 of 4

DRF No. 362896

Implementing Document: MCP-3380

WMF-1617 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS

WMF-1617 Fire Extinguishers			
Area	Requirement	Condition (circle one)	Comments
WMF-1617 Retrieval Area Exterior South West Exit Door (RE505)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1617 Airlock 5 Area Interior South Exit Door (RE514)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1617 Airlock 5 RBA North Exit Door (RE511)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1617 Airlock 5 Area Interior West Exit Door (RE516)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1617 DPS Room North Wall	Class D Fire extinguisher with piercing nozzle is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1617 DPS Room South Wall	Class D Fire extinguisher with piercing nozzle is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	

WMF-1617 Eyewash Station			
Area	Requirement	Condition (circle one)	Comments
WMF-1617	Eyewash station is accessible	YES/NO	
WMF-1617	Eyewash station shows no sign of leaks	YES/NO	

FRM-1374
 05/09/19
 Rev. 6
 Page 3 of 4
 DRF No. 362896
 Implementing Document: MCP-3380

WMF-1617 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS

WMF-1617 Spill Control Cabinet ⁴			
Area	Requirement	Condition (circle one)	Comments
WMF-1617 Airlock 5	Spill control Cabinet accessible	YES/NO	
WMF-1617 Airlock 5	Tamper Seal Intact	YES/NO	

⁴ If inspecting during the month of October, break the tamper seal and inventory the cabinet using the inventory table on this form. After completing the inventory, place a new tamper seal on the spill cabinet and record the new tamper seal ID in the space provided. In other months, compare the tamper seal ID with the tamper seal ID recorded on the previous FRM-1374. If the tamper seal IDs are identical, no inventory is needed; circle NA on the inventory inspections. If the tamper seal ID is different, break the seal and inventory the cabinet using the inventory table on this page.

WMF-1617 Spill Control Cabinet		
Area	Requirement	
WMF-1617 Airlock 5	Existing Tamper Seal ID	

WMF-1617 Spill Control Cabinet			
Area	Spill Control Cabinet Inventory	Condition (circle one)	Comments
WMF-1617 Airlock 5	1 each Plastic Bucket	YES/NO/NA	
WMF-1617 Airlock 5	1 dozen Spill control pillows or absorbent socks	YES/NO/NA	
WMF-1617 Airlock 5	1 case Radioactive waste bags	YES/NO/NA	
WMF-1617 Airlock 5	5 Signs (such as CAUTION Acid or CAUTION Chemical Spill)	YES/NO/NA	
WMF-1617 Airlock 5	1 box pH indicator	YES/NO/NA	
WMF-1617 Airlock 5	1 each Shovel (flat head)	YES/NO/NA	
WMF-1617 Airlock 5	1 box Smear paper and envelopes	YES/NO/NA	
WMF-1617 Airlock 5	2 each Standard pencils and grease pencils	YES/NO/NA	
WMF-1617 Airlock 5	1 pad Paper	YES/NO/NA	
WMF-1617 Airlock 5	5 each Radiological tags or signs	YES/NO/NA	
WMF-1617 Airlock 5	1 spool Radiation rope or ribbon	YES/NO/NA	
WMF-1617 Airlock 5	Spill-X products (with scoop)	YES/NO/NA	
WMF-1617 Airlock 5	Solvent cleanup material	YES/NO/NA	
WMF-1617 Airlock 5	Tamper seal indicator installed after inventory	YES/NO/NA	
WMF-1617 Airlock 5	Newly installed tamper seal indicator ID ⁴ :		

WMF-1617 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS

Comments: _____

Open RCRA Remedials

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

Nature of Any Repairs or Other Remedial Actions	Repairs / Remedial Actions Complete or Not Required. Shift Supervisor Signature/Date

Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature ⁵	SS Review Date

⁵ If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

WASTE CONTAINER INVENTORY SHEET AND RCRA EMPTY VERIFICATION

CONTAINER BARCODE	BOX TYPE

Check <input type="checkbox"/> or fill in as applicable for the container inventory									
Compacted Drum Inventory ¹								Page	of
Original Container ID Number	55-gal drum /liner, crushed	83/85- gal drum, crushed	110-gal drum, crushed	Estimated milliliters of Sludge ²	Verified RCRA Empty (<input checked="" type="checkbox"/>)	Comments/Other waste – description (PPE, lids, etc.)	Verified No NNSS prohibited items ³ (<input checked="" type="checkbox"/>)	Name (Initials)	Date

PCB OOS date:	WDDF# :	Container % fill:
The following personnel verified container contents. See individual lines for specific verifier. ⁴		
Waste Technical Specialist–NNSS Package Certifier (print name)/Signature/Initials	Waste Technical Specialist–NNSS Package Certifier (print name)/Signature/Initials	
Waste Technical Specialist–NNSS Package Certifier (print name)/Signature/Initials	Waste Technical Specialist–NNSS Package Certifier (print name)/Signature/Initials	

¹ For SWBs being loaded with transuranic waste, nothing should be inside drums except liner, when present, and absorbent, when needed. No overpacking allowed.

² Ensure estimate accounts for all waste material in container (i.e., liquid and solid)

³Reference DOE/NV-325.

⁴Only those certifiers involved in the container verification process are required to sign the form. All four certifier blocks do not require signature.

WMF-1619 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION

 Signature/Date

Date: _____ Time: _____

Reviewed the last completed form FRM-1812 (Initials): _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-1812, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

WMF-1619 Trailer Loading/Unloading Area ¹	Condition (circle one)	Comments
Loading and Unloading area is free of leaks and spills (solid or liquid).	YES/NO	
Physical condition of Loading/Unloading area is satisfactory.	YES/NO	
Radio or telephone tested and clear two-way communication was established.	YES/NO	

¹Loading and Unloading area must be inspected daily when in use after completion of the loading/unloading activities.

Comments: _____

Open RCRA Remedials

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

Nature of Any Repairs or Other Remedial Actions	
Repairs / Remedial Actions Complete or Not Required. Shift Supervisor Signature / Date	

WMF-1619 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION

Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature¹	SS Review Date

¹ If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

WMF-1619 WEEKLY RCRA INSPECTIONS

 Signature/Date

Date: _____ Reviewed last completed FRM-1811: (Initials): _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-1811, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

Record time inspection is started:	
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WMF-1619 General Area ¹	Condition (circle one)	Comments
Radio or telephone tested and clear two-way communications were established.	YES/NO	

1. Mark NA if no containers are being stored.

WMF-1619 Service Bay Room 103 ¹	Condition (circle one)	Comments
Containment pans are free of deterioration (cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks). ²	YES/NO/NA	
Containment pans are free of visible waste (liquid or solid) within the confines of the pan and the floor (including any stainless sheeting) is free of visible waste spills (liquid or solid). ²	YES/NO/NA	
Containers show no physical damage, no deterioration (i.e., cracks, gaps, or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste.”	YES/NO/NA	
Minimum 3 ft of aisle space between container rows and a minimum one foot between container and adjacent walls. ³	YES/NO/NA	

1. Mark NA if no containers are being stored.

2. Mark NA if no spill pallets/secondary containment are being used (i.e., no waste with free liquids).

3. Maintain aisle and perimeter spaces free of obstructions. For single containers or containers not in rows, ensure at least one side of each container has a minimum 3 ft unobstructed aisle to provide access to the container.

FRM-1811
 10/14/19
 Rev. 4
 Page 2 of 5
 DRF No. 363822
 Implementing Document: MCP-3380

WMF-1619 WEEKLY RCRA INSPECTIONS

WMF-1619 Transfer Bay Room 104 ¹	Condition (circle one)	Comments
Containment pans are free of deterioration (cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks).	YES/NO/NA	
Containment pans are free of visible waste (liquid or solid) within the confines of the pan and the floor is free of visible waste spills (liquid or solid). ²	YES/NO/NA	
Containers show no physical damage, no deterioration (i.e., cracks, gaps, or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste.”	YES/NO/NA	
Minimum 3 ft of aisle space between container rows and a minimum one foot between container and adjacent walls. ³	YES/NO/NA	

1. Mark NA if no containers are being stored.

2. Mark NA if no spill pallets/secondary containment are being used (i.e., no waste with free liquids).

3. Maintain aisle and perimeter spaces free of obstructions. For single containers or containers not in rows, ensure at least one side of each container has a minimum 3 ft unobstructed aisle to provide access to the container.

WMF-1619 DPS Room 105 ¹	Condition (circle one)	Comments
Containers show no physical damage, no deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste”.	YES/NO/NA	
Minimum 3 ft of aisle space between container rows and a minimum one foot between container and adjacent walls. ²	YES/NO/NA	

1. Mark NA if no containers are being stored.

2. Maintain aisle and perimeter spaces free of obstructions. For single containers or containers not in rows, ensure at least one side of each container has a minimum 3 ft unobstructed aisle to provide access to the container.

WMF-1619 WEEKLY RCRA INSPECTIONS

WMF-1619 Storage Area Room 106¹	Condition (circle one)	Comments
All exit doors have signs posted “DANGER Unauthorized Personnel Keep Out” on the outside.	YES/NO	
Containment pans are free of deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks). ³	YES/NO/NA	
Containment pans are free of visible waste (liquid or solid) within the confines of the pan and the floor is free of visible waste spills (liquid or solid).	YES/NO/NA	
Containers show no physical damage, no deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste”.	YES/NO/NA	
Minimum 3 ft of aisle space between container rows and a minimum one foot between container and adjacent walls ⁴	YES/NO/NA	

1. Mark NA if no containers are being stored.

3. Mark NA if no spill pallets/secondary containment are being used (i.e., no waste with free liquids).

4. Maintain aisle and perimeter spaces free of obstructions. For single containers or containers not in rows, ensure at least one side of each container has a minimum 3 ft unobstructed aisle to provide access to the container.

WMF-1619 Outside Trailer and Container Storage Areas¹	Condition (circle one)	Comments
Containers show no physical damage, no deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste.”	YES/NO/NA	
BRSOPs are not stacked and show no signs of rips/tears, stress or strain	YES/NO/NA	
Containers are stored on trailers in the trailer storage area or containers are elevated above the ground surface (e.g., on a pallet) in the container storage area ² .	YES/NO/NA	
Physical condition of Loading/Unloading area is satisfactory.	YES/NO/NA	

1. Mark NA if no containers are being stored in a given storage area.

2. Inspection includes all containers (i.e., boxes, BRSOPs, and cargo containers) stored on trailers in trailer storage area to the south and southeast of WMF-1619 and the containers storage area to the north of WMF-1619.

BRSOP- Bull Run Soft-Sided Overpack.

FRM-1811
 10/14/19
 Rev. 4
 Page 4 of 5
 DRF No. 363822
 Implementing Document: MCP-3380

WMF-1619 WEEKLY RCRA INSPECTIONS

WMF-1621 Outside Trailer Storage Area ^{1,2}	Condition (circle one)	Comments
Containers show no physical damage, no deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), no leaks, are closed during storage, and are labeled with “Hazardous Waste” or “Mixed Hazardous Waste.”	YES/NO/NA	
Containers are stored on trailer or pallets. ²	YES/NO/NA	
Physical condition of Loading/Unloading area is satisfactory.	YES/NO/NA	

1. Mark NA if no containers are being stored in storage area.

2. Inspection includes all containers (i.e., boxes) stored on the trailer or pallets in the trailer storage area on the northwest side of WM-1621.

Comments: _____

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

FRM-1811
 10/14/19
 Rev. 4
 Page 5 of 5
 DRF No. 363822
 Implementing Document: MCP-3380

WMF-1619 WEEKLY RCRA INSPECTIONS

Nature of Any Repairs or Other Remedial Actions	Repairs/Remedial Actions Complete or Not Required. Shift Supervisor Signature/Date

Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature ¹	SS Review Date

1. If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

WMF-1619 TREATMENT AREA RCRA DAILY INSPECTION

WMF-1619 Sorting Table and Associated Containment Pans^{2, 3, 4}	Monday (√ one)	Tuesday (√ one)	Wednesday (√ one)	Thursday (√ one)	Friday (√ one)	Saturday (√ one)	Sunday (√ one)
Inspection done visually (V) or by camera (C). ²	V <input type="checkbox"/> C <input type="checkbox"/>						
Record the approximate size and amount of material released to secondary containment system(s) to meet the de minimis criteria. (If no release occurred, mark NA) ^{4,5}							

2. Sorting Table and containment pans must be inspected daily if waste handling operations occur in the unit that day. A daily inspection is also required if waste remains in the sorting table or sorting table containment pans above de minimis amounts (see note 4 for definition of "de minimis"). If no inspection is required, the inspection may be marked NA by circling NA for all inspection items or by lining through the entire column (initial, date, and mark NA above line). In addition, include a note in the comments section stating the unit was not in use MM/DD/YY (SOM or designee).
3. If waste processing occurs during the shift, inspection of the RCRA areas will be completed by direct visual inspection.
4. De minimis amounts, as used on this form, refers to waste residues in quantities that do not pose a threat to human health and the environment and consist of relatively small quantities of solid material that is difficult or impractical to remove from the containment pan using commonly employed methods such as shoveling, sweeping or vacuuming.
5. Releases from miscellaneous treatment units that are totally contained within a secondary containment system shall be removed from the containment pans to meet the de minimis criteria prior to the inspection.

WMF-1619 Drum/Tray Staging Arrays and Secondary Waste Soil Sacks Storage Area^{4,5,7, 10}	Monday (√ one)	Tuesday (√ one)	Wednesday (√ one)	Thursday (√ one)	Friday (√ one)	Saturday (√ one)	Sunday (√ one)
Containment pans are free of deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), and free of visible waste above de minimis amounts (liquids or solids).	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Containers/trays show no signs of physical damage or deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), or leaks.	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Soil surfaces in the Retrieval Area surrounding secondary containment pans and active waste transport pathways are free of visible waste (liquid or solid).	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Containers/trays are located in secondary containment if they contain liquid.	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Secondary waste soil sacks are stored upright, are intact, and show no signs of physical damage or deterioration that would prevent them from providing containment for secondary waste.	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Inspection done visually (V) or by camera (C)	V <input type="checkbox"/> C <input type="checkbox"/>						
Record the approximate size and amount of material released to secondary containment system(s) to meet the de minimis criteria. (If no release occurred, mark NA) ^{4,5}							

6. Container/tray staging arrays must be inspected daily if waste handling operations occurred in the RA that day [Ensure any containers, waste trays, and containment pans in areas 2-12 on the map on Page 7 are inspected. Ensure any soil sacks in areas 11 and 12 on the map on Page 7 are inspected. Check NA if no waste was moved through the RA that day for all inspection items or line through the entire column (initial, date, and mark NA above line). See note 4 above for definition of "de minimis". In addition, include a note in the comments section stating no waste handling operations occurred in the storage areas in the RA MM/DD/YY (SOM or designee) Note: An inspection of all container/tray staging arrays storing waste is required every 5 days regardless of operational activities.
7. If waste processing occurs during the shift, inspection of the RCRA areas will be completed by direct visual inspection.

WMF-1619 TREATMENT AREA RCRA DAILY INSPECTION

WMF-1619 Treatment Area (Service Bay, Room 103)^{4, 5, 7, 8}	Monday (√ one)	Tuesday (√ one)	Wednesday (√ one)	Thursday (√ one)	Friday (√ one)	Saturday (√ one)	Sunday (√ one)
Secondary containment pans are free of deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks), and free of visible waste above de minimis amounts (liquids or solids). ⁴	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Room 103 floor and stainless steel are free of visible waste.	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Drum compactor is free of spills (liquid or solid), deterioration.	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Compactor secondary containment pan is free of deterioration (i.e., cracks, gaps or corrosion that would prevent it from providing containment and preventing leaks), and free of visible waste above de minimis amounts (liquids or solids).	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Containers/trays are located in secondary containment.	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Inspection done visually (V) or by camera (C).	V <input type="checkbox"/> C <input type="checkbox"/>						
Record the approximate size and amount of material released to secondary containment system(s) to meet the de minimis criteria. (If no release occurred, mark NA) ^{4,5}							

8. The Service Bay (Room 103) must be inspected daily if operations occur in the Service Bay that day. A daily inspection is also required if waste remains in the Service Bay containment pans or stainless-steel sheets on the floor above de minimis amounts (see note 4 above for definition of “de minimis”). If no inspection is required, check NA for all inspection items or line through the entire column (initial, date, and mark NA above line). In addition, include a note in the comments section stating the Service Bay was not in use MM/DD/YY (SOM or designee).

9. If waste processing occurs during the shift, inspection of the RCRA areas will be completed by direct visual inspection.

10. If a containment pan or a miscellaneous treatment or storage unit (e.g., sorting table, primary or secondary containment pans, waste staging trays) is found to have deterioration such as cracks or gaps or corrosion that would prevent it from providing containment and preventing leaks, the unit is unfit for use and must be removed from service.

WMF-1619 TREATMENT AREA RCRA DAILY INSPECTION

WMF-1619 Treatment Area (DPS Room 105)^{10, 11}	Monday (√ one)	Tuesday (√ one)	Wednesday (√ one)	Thursday (√ one)	Friday (√ one)	Saturday (√ one)	Sunday (√ one)
DPSs are free of leaks, spills, deterioration (that would prevent the DPS from performing the intended purpose).	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
DPS floor, debris slides, and secondary containment trays below debris slides are free of deterioration (i.e., cracks, gaps or corrosion that would prevent them from providing containment and preventing leaks) and free of visible waste above de minimis amounts (liquids or solids).	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Concrete and soil surfaces surrounding the debris slides are free of visible waste (liquid or solid).	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Record the approximate size and amount of material released to secondary containment system(s) to meet the de minimis criteria. (If no release occurred, mark NA) ^{4,5}							

11. Each DPS must be inspected daily if operations occur in the DPS system that day. A daily inspection is also required if waste remains in the DPS system (including the DPS floor, debris slides, and trays under slides) above de minimis amounts (see note 4 above for definition of "de minimis"). If no inspection is required, check NA for all inspection items or line through the entire column (initial, date, and mark NA above line). In addition, include a note in the comments section stating the unit was not in use MM/DD/YY (SOM or designee).

WMF-1619 RA CERCLA Transfer of Waste and Equipment¹²	Monday (√ one)	Tuesday (√ one)	Wednesday (√ one)	Thursday (√ one)	Friday (√ one)	Saturday (√ one)	Sunday (√ one)
RCRA operations ceased during CERCLA transfer of equipment and/or waste through the RA.	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
Secondary containment storage areas were temporarily relocated as necessary to allow transfer through the RA.	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						
There is no visible evidence of CERCLA waste remaining on the transport route through the RA from CERCLA transfer of equipment or waste.	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>						

12. To be completed when CERCLA waste or equipment is transferred from ARP VIII to ARP IX through the WMF-1619 RA. If CERCLA transfers of waste or equipment through the WMF-1619 RA have not occurred, check NA.

WMF-1619 TREATMENT AREA RCRA DAILY INSPECTION

Day	Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature¹³	SS Review Date
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					

13. If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

WMF-1619 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS

 Signature/Date

Inspection Date: ____/____/____ Time Start: _____

Reviewed the last completed form FRM-1810 (Initials): _____

Record spill cabinet tamper seal number from last completed FRM-1810 (Initials): _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM 1810, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

Area	Requirement	Condition (circle one)	Comments
WMF-1619 Area	Area Evacuation Siren is audible ¹	YES/NO	
	Fire detection and alarm system not in alarm	YES/NO	
WMF-1619 DPS	Monthly inspections completed on dry chemical fire suppression systems in the DPSs ²	YES/NO	
WMF-1619	Monthly inspections completed on dry chemical fire suppression systems on in-service mobile equipment ²	YES/NO	
SDA perimeter fence ³	The “DANGER Unauthorized Personnel Keep Out” signs on the RWMC SDA perimeter fence are in place.	YES/NO/NA	

¹Monthly test of the evacuation siren system is to be coordinated with Life Safety Systems (LSS) personnel.

² Monthly inspections of the dry chemical fire suppression systems are coordinated with LSS personnel.

³ Signs must be located every 50 ft. Inspected semiannually in April and October. In other months circle NA.

WMF-1619 Fire Extinguishers			
Area	Requirement	Condition (circle one)	Comments
WMF-1619 Retrieval Area Exterior Northeast Exit Door (RE704)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1619 Retrieval Area Exterior Northwest Exit Door (RE703)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1619 Retrieval Area Exterior Southwest Exit Door (RE706)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	

FRM-1810

02/28/19

Rev. 2

Page 2 of 4

DRF No. 362033

Implementing Document: MCP-3380

WMF-1619 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS

WMF-1619 Fire Extinguishers			
Area	Requirement	Condition (circle one)	Comments
WMF-1619 Retrieval Area Exterior Southeast Exit Door (RE708)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1619 Room 106 Southwest Exit Door (RE717)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1619 Room 106 Southeast Exit Door (RE718)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1619 Room 102 West Exit Door (RE709)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1619 Service Bay (Room 103) West Exit Door (RE710)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1619 DPS Room (Room 105) Southwest Exit Door (RE702)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1619 (Room 106) East Exit Door (RE720)	ABC Fire extinguisher is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1619 DPS Room (Room 105) East Wall	Class D Fire extinguisher with piercing nozzle is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	
WMF-1619 DPS Room (Room 105) West Wall	Class D Fire extinguisher with piercing nozzle is accessible	YES/NO	
	No physical damage present; seal is intact	YES/NO	
	Gauge is green	YES/NO	

FRM-1810

02/28/19

Rev. 2

Page 3 of 4

DRF No. 362033

Implementing Document: MCP-3380

WMF-1619 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS

WMF-1619 Eyewash Station			
Area	Requirement	Condition (circle one)	Comments
WMF-1619 (Room 106)	Eyewash station is accessible	YES/NO	
WMF-1619 (Room 106)	Eyewash station shows no sign of leaks	YES/NO	
WMF-1619 Spill Control Cabinet³			
WMF-1619 Airlock 6 (Room 106)	Spill control Cabinet accessible	YES/NO	
WMF-1619 Airlock 6 (Room 106)	Tamper Seal Intact	YES/NO	

³If inspecting during the month of October, break the tamper seal and inventory the cabinet using the inventory table on this form. After completing the inventory, place a new tamper seal on the spill cabinet and record the new tamper seal ID in the space provided. In other months, compare the tamper seal ID with the tamper seal ID recorded on the previous FRM-1810. If the tamper seal IDs are identical, no inventory is needed; circle NA on the inventory inspections. If the tamper seal ID is different, break the seal and inventory the cabinet using the inventory table on this page.

WMF-1619 Spill Control Cabinet		
Area	Requirement	
WMF-1619 Airlock 6 (Room 106)	Existing Tamper Seal ID	

WMF-1619 Spill Control Cabinet			
Area	Spill Control Cabinet Inventory	Condition (circle one)	Comments
WMF-1619 Airlock 6 (Room 106)	1 each Plastic Bucket	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)	1 dozen Spill control pillows or absorbent socks	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)	1 case Radioactive waste bags	YES/NO/NA	
WMF-1619 Airlock 6(Room 106)	5 Signs (such as CAUTION Acid or CAUTION Chemical Spill)	YES/NO/NA	
WMF-1619 Airlock 6(Room 106)	1 box pH indicator	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)	1 each Shovel (flat head)	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)	1 box Smear paper and envelopes	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)	2 each Standard pencils and grease pencils	YES/NO/NA	
WMF-1619 Airlock 6(Room 106)	1 pad Paper	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)	5 each Radiological tags or signs	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)	1 spool Radiation rope or ribbon	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)	Spill-X products (with scoop)	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)	Solvent cleanup material	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)	Tamper seal indicator installed after inventory	YES/NO/NA	
WMF-1619 Airlock 6 (Room 106)			
WMF-1619 Airlock 6 (Room 106)	Newly installed tamper seal indicator ID ³ :		

FRM-1810

02/28/19

Rev. 2

Page 4 of 4

DRF No. 362033

Implementing Document: MCP-3380

WMF-1619 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS

Comments: _____

Open RCRA Remedials

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

Nature of Any Repairs or Other Remedial Actions	Repairs/Remedial Actions Complete or Not Required. Shift Supervisor Signature / Date

Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature ⁴	SS Review Date

⁴If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

FRM-418 02/23/16 Rev. 0 Used with TPR7418-7 DRF No. 347625	Debris Repackage Project RCRA Empty Container Verification	This data sheet is the current Revision date per EDMS <hr/> Signature/Date
--	---	--

CONTAINER BARCODE			BOX TYPE		
Scale ID#:		Gross Wt. (kg):			
Calibration Date:		Calibration Due Date:			
Estimated milliliter of residual waste ¹	Verified RCRA Empty (v)	Comments	Verified No NNSS prohibited items ² (v)	Name (initials)	Date

WDDF #	
The following NNSS Package Certifier verified container contents. ²	
Waste Technical Specialist –NNSS Package Certified Print Name/Signature/Initials	Date

1. Ensure estimate accounts for all waste material in containers (i.e., liquid and solid)
2. Reference DOE/NV-325.

WMF-1621 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION

 Signature/Date

Date: _____ Time: _____

Reviewed the last completed form FRM-409 (Initials): _____

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-409, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form. (initials): _____

WMF-1621 Trailer Loading/Unloading Area ¹	Condition (circle one)	Comments
Loading and Unloading area is free of leaks and spills (solid or liquid).	YES/NO	
Physical condition of Loading/Unloading area is satisfactory.	YES/NO	
Radio or telephone tested and clear two-way communication was established.	YES/NO	

¹Loading and Unloading area must be inspected daily when in use after completion of the loading/unloading activities.

Comments: _____

Open RCRA Remedials

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

Nature of Any Repairs or Other Remedial Actions	
Repairs / Remedial Actions Complete or Not Required. Shift Supervisor Signature / Date	

WMF-1621 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION

Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature¹	SS Review Date

¹ If the SS is not on site when the inspection is completed, the SS review and signature will be completed on the next working day when the SS returns to the site. The SS review is administrative and is not necessary to consider the inspection complete.

HMWA/RCRA PART B PERMIT
FOR THE
IDAHO NATIONAL LABORATORY

Volume 18 – Book 3 – Radioactive Waste Management Complex

ATTACHMENT 5

Subsurface Disposal Area
WMF-698 and WMF-1617

Section H

Personnel Training

Revision Date: December 17, 2019

CONTENTS

H. PERSONNEL TRAINING	1
H-1. Outline of Training Program	1
H-1a. Job Tasks	2
H-1b. Training Content, Frequency, and Techniques	3
H-1c. Training Director	4
H-1d. Relevance of Training to Job Tasks	8
H-1e. Training for Emergency Response	8
H-2. Implementation of Training Program	9
H-3. Training Records	9

TABLES

Table H-1. Minimum Training Matrix for TSD Unit Personnel	6
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H. PERSONNEL TRAINING

This section outlines and describes the training program for personnel involved in the management of hazardous and mixed waste at treatment, storage, and disposal (TSD) units at the Radioactive Waste Management Complex (RWMC) – Subsurface Disposal Area (SDA) addressed in this permit.

A training program has been implemented to ensure that personnel involved in the management of hazardous and mixed waste at RWMC TSD units receive training consistent with the requirements of the Idaho Administrative Procedures Act (IDAPA) 58.01.05.008 and 58.01.05.012 [Title 40 Code of Federal Regulations (CFR) Part 264.16 and 270.14]. The training program is designed to ensure that personnel are trained to hazardous waste management procedures including, but not limited to, inspections, normal operations, emergency procedures, equipment, systems, and contingency plan implementation. Duties performed at the TSD units will be performed in a safe, disciplined, and professional manner.

H-1. Outline of Training Program [IDAPA 58.01.05.008; 40 CFR 264.16(a)(1)]

Training programs are developed using a systematic approach to training (SAT). The SAT process involves:

- Analyzing tasks to determine the training requirements
- Designing a plan to satisfy the training requirements
- Developing plans and all supporting training materials
- Implementing the training plans
- Evaluating the effectiveness of the training and making recommendations for changes.

The SAT process is used to determine the training requirement for each task listed in Table H-1. The training program for TSD unit personnel involves a combination of formal [classroom, group instruction, on-the-job training (OJT), etc.] and informal training sessions (one-on-one instruction, required reading, etc.). The training requirements for each position are identified in Table H-1. Lesson plans and OJT guides are developed to support tasks identified in Table H-1.

1 Programs prepared by the TSD training organization provide the requirements to be completed
2 by the individual during training. As the program is satisfactorily completed, it is verified and
3 documented in their training records.

4 The training program is upgraded as needed in response to changes in job descriptions, job
5 reassignment, process or procedural changes, technological changes, or implementation of new
6 regulatory requirements that affect TSD unit operations. Revisions to the training program are approved
7 by the training manager and the TSD unit manager (training director) for the specific TSD unit and the
8 job analysis data is updated to reflect the changes in the training requirements.

9 TSD unit management works with subject matter experts to identify personnel training
10 requirements. The TSD unit training organization (1) schedules and/or provides the training, (2) revises
11 and updates training material as needed, and (3) maintains training documentation. The TSD unit
12 training organization maintains individual training records for TSD unit employees.

13 **H-1a. Job Tasks [IDAPA 58.01.05.008; 40 CFR 264.16(d)(1), 264.16(d)(2)]**

14 The job tasks for personnel involved with hazardous waste management at RWMC TSD units are
15 included in Table H-1 “Minimum Training Matrix for TSD unit Personnel” Personnel are trained to those
16 sections of the permit, which are pertinent to their specific job assignments.

17 Security Guards – The Security personnel are not stationed at the permitted units nor are they
18 involved in the management or handling of the waste. Security personnel receive training from the
19 security organization relative to their positions and the facilities they serve. Therefore, training of
20 security personnel is not discussed further in this section.

21 On Scene Commander – is the Idaho National Laboratory (INL) Fire Department Chief. The
22 INL Firefighters serve the INL Site in fighting fires and containing major spills, including spills of waste
23 from waste management units. The INL Fire Department conducts a self-contained training program for
24 their personnel, which includes procedures for handling fires and spill emergencies involving hazardous
25 materials and hazardous mixed waste at the INL Site. Therefore, training of fire fighters is not discussed
26 further in this section.

27 Emergency Director (ED) – is trained on the INL (Site-wide) and Idaho Completion Project
28 (ICP) Emergency Plan (EP)/Resource Conservation and Recovery Act (RCRA) Contingency Plan (CP) or
29 Industrial Safety and Hygiene Program as part of his/her duties. The ED will be informed by the

1 Emergency Action Manager (EAM) or facility personnel at RWMC. Therefore, training of ED is not
2 discussed further in this section.

3 **H-1b. Training Content, Frequency, and Techniques [IDAPA 58.01.05.008;**
4 **40 CFR 264.16 and (d)(3)]**

5 The TSD unit training program consists of a combination of classroom instruction and OJT.
6 Additionally, TSD unit employees receive new employee orientation and training. [All employees
7 working at or assigned as part-time/frequent visitor to Site facilities are required to complete annual
8 facility access training and general employee radiation training (GERT) unless they are currently trained
9 as radiation workers.]

10 The initial training includes a general orientation of INL and TSD unit procedures including
11 evacuation and alert procedures, training requirements, and emergency equipment locations. The initial
12 training provides TSD unit personnel with training commensurate with their job assignments in the
13 following areas:

- 14 • General description of the RWMC SDA
- 15 • Job-related procedures, policies, and instructions
- 16 • Radiological health and safety program
- 17 • Fire protection program
- 18 • Hazards associated with the TSD unit.

19 RCRA training is conducted annually for RWMC TSD unit employees to address changes that
20 have occurred which include such topics as permit status, permit requirements, contingency and
21 inspection plan implementation, and hazardous waste management procedures for the TSD unit(s) to
22 which they are assigned.

23 The following major knowledge areas are included and evaluated based on job position and
24 formal criteria identified in the job analysis:

- 25 • RCRA requirements as they relate to RWMC unit operations
- 26 • Hazardous materials

1 **H-1c. Training Director [IDAPA 58.01.05.008; 40 CFR 264.16(a)(2)]**

2 For all TSD units, the facility manager (training director) functions in conjunction with his/her
3 designee(s) to insure that all segments and responsibilities associated with the training program are
4 accomplished. The training director provides overall leadership and management direction to the TSD
5 unit training organization. The director's duties include the following:

- 6 • Provide direction to the TSD unit training organization
- 7 • Ensure that performance of training personnel is evaluated
- 8 • Approve TSD unit training program
- 9 • Ensure that all program objectives and requirements are satisfied and that the training
10 program meets the requirements of IDAPA 58.01.05.008 (40 CFR 264.16) and 29 CFR
11 1910.120.

12 The training director or his/her designee(s) is responsible for ensuring that TSD unit personnel
13 are trained in waste management and contingency plan implementation, including emergency procedures,
14 and for ensuring that TSD unit personnel receive training appropriate to their tasks. The TSD unit
15 training content is updated for any facility changes.

Table H-1. Minimum Training Matrix for TSD Unit Personnel.

TASK	AUDIENCE	INITIAL EMPLOYEE TRAINING	RAD TRAINING ¹	24-HOUR OSHA ¹	ANNUAL TRAINING	APPLICABLE SECTIONS OF RCRA PERMIT ²
<p>RWMC SDA operations personnel that perform treatment, storage, and disposal facility (TSDF) operations and inspections, or supervise those operations and inspections, and are exposed to the hazards of the TSDF. These employees have duties that may bring them into contact with hazardous/ mixed waste. These employees are required to obtain 24-hr HAZWOPER TSDF Qualification. (40-hr HAZWOPER may also be used to fulfill this requirement.)</p>	<p>RWMC SDA RCRA Worker</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>C, D, F, G</p>
<p>Personnel who enter TSDF areas unescorted and provide support functions that may require them to interface with systems, structures, or components referenced within the facility RCRA Permit, or may bring them into contact with hazards of the facility to include the potential for exposure to hazardous/mixed waste at the TSDF. These employees are required to obtain 24-hour HAZWOPER TSDF Qualification. Examples of work activities include radiological surveys, assessments, waste characterization, performing waste shipments or waste movement, repairing or replacing facility emergency/monitoring equipment, life safety systems support, equipment calibrations, and surveillance. Examples of work that may be included are Quality Inspectors, Quality Engineers, System Engineers (assigned to TSDFs), Life Safety System Engineers, Environmental Engineers, Industrial Hygienists, Safety Engineers, Packaging and Transportation representatives, Waste Technical Specialists, Crafts (instrument technician, pipefitter, mechanic, welder, painter, etc.) and Radiological Control Technicians.</p>	<p>RWMC RCRA Technical Support Worker-HAZWOPER</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>F, G</p>

TABLE H-1. (continued)

TASK	AUDIENCE	INITIAL EMPLOYEE TRAINING	RAD TRAINING ¹	24-HOUR OSHA ¹	ANNUAL TRAINING	APPLICABLE SECTIONS OF RCRA PERMIT ²
Personnel who enter TSDf areas unescorted and provide support functions that may require the individual to interface with systems, structures, or components referenced within the facility RCRA Permit. Personnel in this category generally do not have the potential to for exposure to the hazardous or mixed waste (for instance, these employees are not required to wear PPE and are not required to complete 24-hour HAZWOPER training). Examples of workers that may be included are System Engineers (not assigned to TSDf's), and other personnel who perform the activities listed above.	RWMC SDA RCRA Technical Support Worker	X	X		X	F, G
Personnel who enter TSDf areas unescorted and provide only incidental support to facility operations. These individuals are not directly exposed to the hazards of the TSDf but must be cognizant of the RCRA-related requirements for access. Additionally, these personnel are not required to complete 24-hour HAZWOPER training. Examples of positions within this level include Maintenance Planners, Radiological Engineers, RCT Supervision, personnel assigned as Senior Supervisory Watch, Training Specialists, Waste Disposition Specialists, D&D Workers and administrative support personnel.	RWMC SDA RCRA General Employee	X			X	F, G
RWMC EAM conducts operations-related response; coordinates protective actions or protective action recommendations; authorizes response resources; satisfies federal, state, and local requirements and declares the RWMC Emergency Control Center operational.	RWMC Emergency Action Managers	X	X	X	X	G
¹ . Personnel who are not exposed to the hazards of the regulated units may not require this training.						
² . Personnel receive training related to the permit section as appropriate to their job function.						
Section C – Waste Characterization			Section F – Procedures to Prevent Hazards			
Section D – Process Information			Section G – Preparedness, Prevention, and Contingency Plan			

1 **H-1d. Relevance of Training to Job Tasks [IDAPA 58.01.05.008; 40 CFR 264.16(a)(2)]**

2 Individual training program profiles are prepared for each TSD unit position that requires a
3 formal training program.

4 At a minimum, each individual training program profile identifies the following:

- 5 • Job description
- 6 • Qualifications
- 7 • Training requirements.

8 Profiles typically identify qualification requirements. Occasionally, a position may require
9 specialized training. Special-case training is documented in individual training records. Profiles include
10 requirements for hazardous/mixed waste management or handling and emergency response training.

11 Supervisors have the responsibility for evaluating training requirements for TSD employees.
12 These supervisors receive additional training in how to conduct and evaluate OJT.

13 Individuals who demonstrate an equivalency for specific requirements or prerequisites identified
14 in the training profile may be exempted from requirements in accordance with established procedures.
15 Exemptions/equivalencies must be approved by the training director. Each exemption/equivalency is
16 granted in writing and documented in the individual's training record.

17 **H-1e. Training for Emergency Response [IDAPA 58.01.05.008; 40 CFR 264.16(a)(3)]**

18 Emergency response training is provided to all personnel assigned to or associated with TSD
19 units, including specialized training for employees with specific emergency action responsibilities, such
20 as the EAM and Emergency Response Organization (ERO) personnel. AMWTP Emergency
21 Coordinators who assume responsibility for emergency response at ARP facilities, especially during off
22 hours, will receive ARP-specific training. The following presents an overview of the emergency
23 response training.

24 General emergency response training of TSD unit ERO personnel includes training on the ICP
25 EP/RCRA CP which covers the following topics:

- 26 • Spill Control Plan

- 1 • Evacuation/accountability
- 2 • Emergency drill/exercise
- 3 • RCRA
- 4 • Emergency Plan Implementing Procedures
- 5 • Emergency preparedness
- 6 • Incident command system
- 7 • Inspection and repair of facility emergency monitoring equipment.

8 ERO members respond to emergency events. ERO members receive initial training and annual
9 requalification training, in addition to training provided to general employees. Training of ERO
10 members is outlined by position in company procedures. All RWMC SDA employees receive general
11 employee emergency response action training.

12 **H-2. Implementation of Training Program [IDAPA 58.01.05.008; 40 CFR 264.16(b),**
13 **264.16(d)(4), 264.16(e)]**

14 After completion of new employee orientation, designated employees enter a training program
15 specific to their job assignment. Persons holding qualifications are retrained and reevaluated as
16 mandated by procedures. Job assignments which are required for the completion of a training program
17 have time and performance limitations that must be satisfied to meet program qualification criteria.

18 RCRA training is completed within the first six months of the individual's employment or
19 assignment, and at least annually thereafter, for positions involving TSD unit operations. Throughout the
20 training program and until completion, employees do not perform their job duties unsupervised.

21 **H-3. Training Records [IDAPA 58.01.05.008; 40 CFR 264.16(d)(4) and (e)]**

22 Individual training records are maintained for personnel assigned to TSD units. Training records
23 include documentation of completed training, such as class rosters, signed checklists, completed exams,
24 data base printouts from additional training classes attended, and other documents verifying training.
25 The original training records are maintained by the presenting organizations, which enter course

1 completion information into a database. A hard copy of this information is also entered into the
2 individual's training record.

3 The training records include the names of employees filling each TSD unit position. Job tasks
4 and associated training requirements for each TSD unit are found in Table H-1.

5 Individual training records include, as a minimum, the following:

- 6 • Initial training and retraining programs
- 7 • Attendance records of training received
- 8 • Results of exams, walk through, and job performance assessments related to
9 certification.

10 Training records for current employees at each TSD unit are maintained until closure of the unit
11 or the employee terminates or transfers to a non-TSD unit position. The training records of terminating
12 employees are maintained at the TSD unit for a minimum of three years from the date the employee last
13 worked at a TSD unit. The training records for TSD unit employees who transfer to a non-TSD unit
14 position within the company are forwarded to the employee's new organization where they continue to be
15 available for at least three years.

HWMA/RCRA PART B PERMIT
FOR THE
IDAHO NATIONAL LABORATORY

Volume 18 –Book 3A – Radioactive Waste Management Complex (RWMC)

ATTACHMENT 6

Subsurface Disposal Area (SDA) Buildings
WMF-698, WMF-1617 and WMF-1619

Sections F-3 through F-5
Procedures to Prevent Hazards

Revision Date: December 17, 2019

CONTENTS

F-3. Waiver or Documentation of Preparedness and Prevention Requirements	1
F-3a. Equipment Requirements	1
F-3a(1) Internal Communications	1
F-3a(2) External Communications	1
F-3a(3) Emergency Equipment	1
F-3a(4) Water For Fire Control	2
F-3b. Aisle Space Requirement	3
F-4. Preventive Procedures, Structures, and Equipment	3
F-4a. Unloading Operations	4
F-4b. Run-off	4
F-4c. Water Supplies	4
F-4d. Equipment and Power Failure	5
F-4e. Personnel Protection Equipment	5
F-4f. Releases to the Atmosphere	5
F-5. Prevention of Reaction of Ignitable, Reactive, and Incompatible Wastes	6
F-5a. Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Waste	6

1 **F-3. Waiver or Documentation of Preparedness and Prevention Requirements**

2 **F-3a. Equipment Requirements [IDAPA 58.01.05.012 and 58.01.05.008; 40 CFR 270.14(b) and**
3 **264.32]**

4 **F-3a(1) Internal Communications [IDAPA 58.01.05.008; 40 CFR 264.32(a)]**

5 Buildings WMF-698, WMF-1617 and WMF-1619 are equipped with communication devices
6 (e.g., phones, alarm systems, etc.) capable of summoning emergency assistance. The personnel involved
7 in the operation have immediate access to emergency communication devices. If the work requires
8 restricted entry, a second person is stationed outside the restricted area to summon emergency personnel
9 and provide assistance as required. If there is ever just one employee at the TSD while the unit is
10 operating, that employee will be provided immediate access to a communication device for summoning
11 emergency assistance.

12 **F-3a(2) External Communications [IDAPA 58.01.05.008; 40 CFR 264.32(b)]**

13 RWMC communication devices are capable of summoning emergency assistance. The RWMC
14 EAM and the WCC use communication devices that provide direct access to external emergency response
15 agencies.

16 **F-3a(3) Emergency Equipment [IDAPA 58.01.05.008; 40 CFR 264.32(c)]**

17 Exhibits G-1, G-2 and G-3 in the contingency plan, Attachment 7 Section G, Book 3 of this
18 permit, identify the evacuation routes and locations of safety equipment for the RWMC SDA. Examples
19 of safety equipment available for spill control at the RWMC SDA may include the following:

- | | | |
|----|-------------------------|---------------------------------------|
| 20 | - Plastic buckets | - Chemical spill warning/danger signs |
| 21 | - Spill control pillows | - Radioactive waste bags |
| 22 | - Safety rope | - Spill Signs |
| 23 | - pH indicator | - Acid/caustic neutralizers |
| 24 | - Shovel | - Smear paper and envelopes |

- | | | | | |
|---|---|-------------------------|---|-------------------------|
| 1 | - | Pencils, grease pencils | - | Radiological tags/signs |
| 2 | - | Hazardous material pigs | - | Hazardous material bags |
| 3 | - | Safety showers | - | Eye wash stations |

4 During monthly inspections any missing equipment is replaced and eye wash preventive
5 maintenance status is inspected to determine if it is current. The safety and emergency equipment listed
6 below are located in occupied areas at of WMF-698, WMF-1617, and WMF-1619.

- 7 • Portable fire extinguishers
- 8 • Spill control cabinets
- 9 • Evacuation alarm system
- 10 • Communication devices (two-way radios).

11 Buildings WMF-1617 and WMF-1619 use smoke/fire detection cameras for fire protection.
12 These cameras display in the facility control room. These systems are connected to alarms at the Fire
13 Alarm Center, located at the Central Facilities Area (CFA). WMF-698 has manual pull boxes, local
14 alarm system, and alarm to the fire station. Additionally, portable fire extinguishers are located
15 throughout the buildings.

16 **F-3a(4) Water For Fire Control [IDAPA 58.01.05.008; 40 CFR 264.32(d)]**

17 The RWMC firewater system includes a 250,000-gallon tank (WMF-727) and a 500,000-gallon
18 tank (FW-TK-4301). Makeup water for firewater storage tank WMF-727 is normally supplied from the
19 potable water well/pump system. Makeup water for FW-TK-4301 is normally supplied from WMF-1616
20 deep well pump house. If necessary, either firewater tank can be filled from the other firewater tank by
21 using the firewater pumps for the other tank. Normal Static pressure (125–142 psi) is maintained in the
22 firewater system by the jockey pump FW-P-3904 located in WMF-639. If FW-PIV-DM10 is open, then
23 the two primary 2,000 gpm potable water pumps (PW-P-0302 and PW-P-0303) in WMF-603 can
24 maintain static pressure.

25 In the event of a pressure drop, two 2,000 gal per minute (gpm) electric and diesel-driven pumps
26 in WMF-639 and a 1,500 gpm diesel pump in WMF-743, provide the required water flow for the
27 firewater system. In the event of a commercial power outage, firewater would be supplied to the system
28 by the diesel-driven pump, 2,000 gpm (FW-P-3902) located in WMF-639 and is backed up by the 1,500

1 gpm, diesel-driven pump (FW-P-4301) located in WMF-743. The diesel-driven pump in WMF-743 starts
2 when firewater header pressure drops below 85 psi.

3 Firewater is supplied to the RWMC via a 10-in. diameter main line in the Transuranic Storage
4 Area (TSA) and the Administration and Operation areas, which is reduced to 6 or 8-in. feeder lines. The
5 fire main reduces to 8-in in diameter as it leaves the Operations area, feeding the SDA.

6 An active fire water line runs adjacent to the designated waste retrieval zone within WMF-1617
7 (southeast corner of building footprint) and is protected by a concrete cover. Fire water hydrants are
8 available in the SDA.

9 **F-3b. Aisle Space Requirement [IDAPA 58.01.05.008; 40 CFR 264.35]**

10 WMF-698 will use a 2- wide by 2-high configuration in rows that are 24 drums deep. Secondary
11 containment pans will be located under the containers to provide secondary containment for free liquids.
12 Additional information on the secondary containment pans is found in Attachment 1, Sections B and D.
13 Aisle space is provided as necessary for egress of inspection personnel and emergency equipment (center
14 aisle will be maintained at 20 feet wide with 3 feet between rows and 1 foot around the perimeter of the
15 building).

16 The WMF-1617 and WMF-1619 service bay rooms (101/102/103), equipment airlock room
17 (104), DPS room (105) and utility area room (106) will maintain aisle space as necessary for egress of
18 inspection personnel and emergency equipment (a minimum of 3 feet between container rows and 1 foot
19 perimeter space will be maintained to allow for container removal and inspector egress).

20 **F-4. Preventive Procedures, Structures, and Equipment**

21 WMF-1617 and WMF-1619 were designed so that process and storage areas are maintained at a
22 negative pressure. The HVAC systems in these buildings were designed for the air flow to originate in
23 the areas with the least negative pressure and flow to the areas with a higher negative pressure. Thus, air
24 flows from areas with less potential for contamination to areas with greater potential for contamination.
25 The designs of the HVAC systems and buildings work together to contain wastes, and prevent the wastes
26 from making contact with the environment.

1 WMF-698 ventilation is a draw-through system to prevent the accumulation of volatile organic
2 compounds from equipment exhaust. Dust filters are installed at various locations in the walls to filter the
3 air drawn into the enclosure. The exhaust is not filtered.

4 Storage and treatment areas may have remote capabilities, such as excavators for waste retrieval,
5 operational requirements, and the movement of wastes as necessary. Additionally telescoping forklifts
6 (telehandlers) may be used to transport waste to the drum packaging station (DPS), where waste is
7 visually examined to verify conformance with waste acceptance requirements and then packaged into
8 clean 55-gallon drums, standard waste boxes (SWB), or other waste boxes for interim storage awaiting
9 final waste disposition. WMF-1617 and WMF-1619 ventilation uses four separate HEPA filtered exhaust
10 fans to provide redundant capability. The fans discharge to a manifold duct. For high activity waste as
11 required, operations can use the manifold to direct the exhaust air through another filter bank, and out
12 through the stack (see drawings 783977 and 767855 in Appendix 1). Alpha Constant Air Monitors
13 (CAMs) are provided on each HEPA filter/fan unit discharge.

14 **F-4a. Unloading Operations [IDAPA 58.01.05.012; 40 CFR 270.14(b)(8)(I)]**

15 Trucks, forklifts, or other equipment are used to deliver mixed waste and debris for storage or
16 treatment in the units addressed in this permit.

17 **F-4b. Run-off [IDAPA 58.01.05.012; 40 CFR 270.14(b)(8)(ii)]**

18 The treatment units and storage areas for waste with the potential for free liquids that are
19 addressed in this permit are located within fully enclosed buildings (WMF-698, WMF-1617 and WMF-
20 1619). The area surrounding each building slopes away from the building, carrying any storm water
21 toward the streets, where the water is collected and diverted away from the building. The buildings/areas
22 addressed in this permit are outside of the 100-year flood plain boundary. The outside storage areas used
23 for non-liquid secondary waste are paved to carry storm water away from the storage areas. Containers in
24 the outside storage are elevated above the pavement.

25 **F-4c. Water Supplies [IDAPA 58.01.05.012; 40 CFR 270.14(b)(8)(iii)]**

26 Contamination of water supplies by spills of mixed waste is prevented by storage and treatment
27 being completed within secondary containment pans. See Attachment 1, Sections B and D for additional
28 information on storage and treatment being completed within secondary containment pans.

1 **F-4d. Equipment and Power Failure [IDAPA 58.01.05.012; 40 CFR 270.14(b)(8)(iv)]**

2 Upon loss of commercial power, activities are stopped. Standby generators are provided to
3 assume the electrical loads of WMF-1617 and WMF-1619 exhaust systems that are maintained as standby
4 circuits. Emergency lighting and the HVAC systems in the building resume operation to ensure
5 personnel safety. When commercial power is restored, operations may continue.

6 Upon total loss of power (i.e., the standby generators fail to pick up the load), activities are
7 stopped. Personnel evacuate the building as necessary. When commercial power is restored, operations
8 may continue.

9 **F-4e. Personnel Protection Equipment [IDAPA 58.01.05.012; 40 CFR 270.14(b)(8)(v)]**

10 Buildings WMF-698, WMF-1617 and WMF-1619 are designed with various features that prevent
11 undue exposure of personnel to mixed waste. The HVAC systems of WMF-1617 and WMF-1619 are
12 designed to provide air flow from areas with less potential for contamination to areas with greater
13 contamination potential. WMF-698 operates as a waste storage area with limited air movement for
14 building cooling and equipment exhaust removal. Constant air monitors and remote area monitors (WMF-
15 1617 and WMF-1619 only), and RCT surveys (both buildings) are used to monitor all areas and aid in the
16 detection of radiological contamination. See Attachment 1, Section D8b(4) for additional WMF-1617
17 and WMF-1619 monitoring information. Operations at the building are conducted according to written
18 procedures. Emergency equipment is available at the facilities. See Section F-3a(3) of this permit for a
19 list of equipment available for emergency use, and see Exhibits G-1 through G-3 in the contingency plan
20 for locations of this equipment.

21 Items with the highest radiation levels are treated remotely. Workers wear personal protective
22 equipment as necessary and dictated by procedure, when handling or treating wastes, including equipment
23 such as respirators, gloves, and boots.

24 Pre-job briefings are held, as necessary, to ensure understanding of procedures, safety hazards,
25 and radiological concerns. Job safety analyses are completed as necessary.

26 **F-4f. Releases to the Atmosphere [IDAPA 58.01.05.012; 40 CFR 270.14(b)(8)(vi)]**

27 In the event of an airborne release from the WMF-1617 or WMF-1619 waste management units
28 addressed in this permit, the ventilation system in the building will direct hazardous constituents to the
29 building's HEPA filtered off-gas system, which minimizes releases to the atmosphere.

1 At WMF-1617 and WMF-1619, air from the storage and treatment units is drawn through HEPA
2 filters that remove particles in the exhaust air. From the exhaust plenums, the filtered exhaust air is
3 discharged to a manifold duct. For high activity waste, as required, operations can use the manifold to
4 direct the exhaust air through another filter bank and out through the stack.

5 At WMF-698, all wastes to be stored in the container storage areas will be stored in closed
6 containers in order to minimize the release of hazardous constituents.

7 A container holding hazardous or mixed waste must always be closed during storage. At WMF-
8 1617 and WMF-1619, opening of containers will only be performed for treatment, to add/remove waste,
9 sort, segregate, or for sampling for verifying waste acceptance criteria. Containers of solid hazardous
10 and/or mixed wastes may be consolidated into other DOT/UN containers for storage. Approved
11 procedures and DOT/UN rules are used in conjunction with guidelines listed in 40 CFR 264, Appendix V,
12 to determine compatibility or incompatibility of materials before consolidation is performed into
13 approved containers for storage.

14 **F-5. Prevention of Reaction of Ignitable, Reactive, and Incompatible Wastes**

15 **F-5a. Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Waste [IDAPA**
16 **58.05.01.012 and 58.05.01.008; 40 CFR 270.14(b)(9) and 264.17(a)]**

17 Container storage of wastes will not be limited to non-liquid, physically solid waste forms.
18 Waste matrices will be evaluated by INL facility personnel for free liquids prior to acceptance into the
19 container storage units, and any wastes containing free liquids will be stored within drum storage
20 secondary containment pans. The liquids will be treated through absorbent addition on the sorting table
21 in the RA or in the DPSs.

22 The waste to be accepted from AMWTP will be addressed in the “Waste Matrix Code Reference
23 Manual,” RPT-TRUW-05, and “AMWTP Waste Stream Designations,” RPT-TRUW-12. The current
24 revisions to these reports are maintained as part of the operating record on the Electronic Document
25 Management System (EDMS).

26 Prior to accepting IDCs for treatment, the following must be complete: acceptable chemical
27 compatibility evaluation, AK documentation, and a review confirming the hazardous waste numbers
28 associated with each IDC are included in the permit.

1 Wastes with the RCRA characteristics of ignitibility (D001) or reactivity (D003) are not
2 permitted for treatment or storage at WMF-698, WMF-1617, and WMF-1619. Chemical compatibility
3 evaluations are completed and made based on the waste characterization data prior to acceptance of IDCs
4 for treatment and storage. Based on the compatibility evaluations, treatment/storage operations will not
5 intermix wastes that are incompatible. Chemical compatibility evaluations will be part of the operating
6 record on EDMS. The evaluations will be placed in the facility operating record. Based on AK, RTR, and
7 assay, containers that have identified pressurized aerosol cans, pyrophoric waste, as defined in Permit
8 Condition VI.C.1., and roaster oxides wastes will not be accepted for treatment.

HWMA/RCRA PART B PERMIT
FOR THE
IDAHO NATIONAL LABORATORY

BOOK 3A
Volume 18 –Radioactive Waste Management Complex

ATTACHMENT 7

SUBSURFACE DISPOSAL AREA (SDA)
WMF-698
WMF-1617
WMF-1619

Section G

Preparedness, Prevention, and Contingency Plan

Revision Date: December 17, 2019

CONTENTS

G-1	General Information.....	1
G-2	Emergency Coordinators	3
G-3	Implementation	4
G-4	Emergency Response Procedures	7
G-4a	Notification	7
G-4b	Identification of Hazardous Materials	10
G-4c	Assessment.....	11
G-4d	Control Procedures	12
G-4e	Prevention of Recurrence or Spread of Fires, Explosions, or Releases.....	15
G-4f	Storage and Treatment of Released Materials.....	19
G-4g	Incompatible Waste	20
G-4h	Post-Emergency Equipment Maintenance.....	20
G-4i	Container Spills and Leakage.....	21
G-5	Emergency Equipment.....	23
G-6	Coordination Agreements.....	24
G-7	Evacuation Plan	25
G-8	Required Reports	26

TABLES

G-1	Emergency response equipment available at WMF-698, WMF-1617 and WMF-1619	28
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EXHIBITS

G-1	WMF-698 Evacuation Routes and Emergency Equipment.....	29
G-2	WMF-1617 Evacuation Routes and Emergency Equipment.....	30
G-3	WMF-1619 Evacuation Routes and Emergency Equipment.....	31

<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>G-1 General Information</p> <p>40 CFR 264.51 Purpose and implementation of Contingency Plan.</p> <p>(a) Each owner or operator must have a Contingency Plan for his facility. The Contingency Plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.</p> <p>(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.</p> <p>40 CFR 264.53 Copies of Contingency Plan A copy of the Contingency Plan and all revisions to the Contingency Plan must be:</p> <p>(a) Maintained at the facility; and</p>	<p>G-1 General Information</p> <p>The Idaho Completion Project (ICP) portion of the Radioactive Waste Management Complex (RWMC) Subsurface Disposal Area (SDA) (hereinafter referred to as the RWMC) is designed, constructed, and operated to exclude or isolate hazardous incidents such as fires, explosions and/or unplanned sudden or non-sudden releases of mixed or hazardous waste or hazardous waste constituents to air, soil, or surface water. The RWMC SDA location, operation, site plan and descriptions/information are presented in detail in Section B, Facility Description, of this permit. This Resource Conservation and Recovery Act (RCRA) contingency plan matrix discusses emergency response at RWMC.</p> <p>This matrix addresses emergency actions to protect human health, the environment, and RWMC facilities and equipment in an event originating from or affecting the permitted units, comprised of the Subsurface Disposal Area (SDA) facilities – WMF-698, WMF-1617, WMF-1619, and 5 outside storage areas.</p> <p>The Idaho Cleanup Project (ICP) Emergency Plan/RCRA Contingency Plan (ICP EP/RCRA CP) is the implementing document for emergency response across the Idaho National Laboratory (INL) and is written to comply with requirements that are in addition to those of the Idaho Hazardous Waste Management Act (HWMA)/RCRA. This matrix provides the HWMA/RCRA contingency plan requirements that are being implemented through the ICP EP/RCRA CP.</p> <p>The contingency plan is designed to provide the proper preparation and necessary response planning to prevent or minimize hazards to human health and the environment from fires, explosions, or any release of hazardous waste or hazardous waste constituents. The provisions of the contingency plan are carried out immediately whenever a fire, explosion, spill, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment occurs. Minor incidents (those that can be controlled with on-Site resources and do not threaten human health or the environment) are managed by trained facility personnel according to the provisions of this plan. Such responses are not considered activation of the contingency plan.</p> <p>The contingency plan, with all subsequent revisions, will be maintained with the RCRA permit at the facility at various locations, including the RWMC Shift Manager’s office.</p>

<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>(b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.</p> <p>40 CFR 264.54 Amendment of the Contingency Plan. The Contingency Plan must be reviewed, and immediately amended, if necessary, whenever:</p> <p>(a) The facility permit is revised;</p> <p>(b) The plan fails in an emergency;</p> <p>(c) The facility changes-in its design, construction, operation, maintenance, or other circumstances-in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;</p> <p>(d) The list of emergency coordinators changes; or</p> <p>(e) The list of emergency equipment changes.</p>	<p>Copies of the contingency plan are maintained on-Site, with information provided as necessary (specific to the response action needed) to the following through Memoranda of Understanding (MOUs) and Memoranda of Agreement (MOAs) with the DOE Idaho Operations Office (DOE-ID):</p> <ul style="list-style-type: none"> • Bingham, Bonneville, Butte, Clark, and Jefferson County Sheriffs’ Departments, and City of Idaho Falls Police Department • Madison County, City of Ammon, City of Chubbuck, and City of Idaho Falls Fire Departments, South Custer Rural, Shelley/Firth Fire Districts, and Central Fire District and Teton County Fire Protection District • Portneuf Medical Center, Eastern Idaho Regional Medical Center, and Bingham County Memorial Hospital • Bingham County Emergency Management Services, Bonneville County Emergency Management Services, Butte County Emergency Services, Clark County Civil Defense, and Jefferson County Emergency Management • Shoshone-Bannock Tribes • Bureau of Land Management and Department of Interior • State of Idaho and Idaho Transportation Department <p>The contingency plan is reviewed and immediately amended, if necessary, whenever:</p> <p>The RCRA permit is modified.</p> <p>The contingency plan fails in an emergency.</p> <p>It is determined/known that changes in the permitted units’ design, construction, operation, maintenance, or other circumstances have taken place in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.</p> <p>The list of RWMC emergency action managers (EAMs) changes (refer to Section G-2, Emergency Coordinators).</p> <p>The list of emergency equipment changes (refer to Section G-5, Emergency Equipment).</p>

<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>G-2 Emergency Coordinators 40 CFR 264.52(d) and 264.55 40 CFR 264.52(d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see 264.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and the others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the Regional Administrator at the time of certification, rather than the time of permit application.</p>	<p>G-2 Emergency Coordinators</p> <p>The Emergency Action Managers (EAMs), listed below, are the emergency coordinators (ECs) for purposes of HWMA/RCRA compliance with respect to the contingency plan.</p> <p>Due to the shift-work structure and remoteness of the RWMC, it is not possible or practical for one individual to assume “primary” responsibilities, rather, responsibility is best assigned through “redundant primary” EAMs (EAM alternates are identified with an * below). The RWMC Nuclear Facility Manager (NFM) normally serves as the RWMC EAM.</p> <p>Names, home addresses, and home phone numbers of the RWMC EAMs are as follows:</p> <ul style="list-style-type: none"> • Shokes, Joel S., 175 Abraham St., Chubbuck, ID 83202. Home/Cell Phone: 208-241-4930; Work Phone: 208-533-0424 • Fogarty, Mike F., 4019 Nathan Dr., Idaho Falls, ID 83404. Home Phone: 208-542-1372; Cell Phone: 208-680-0773; Work Phone: 208-533-6508 • Loftus, Mike R., 1487 Mountain View, Apt. #1, Idaho Falls, ID 83402. Home Phone: 208-523-6532; Cell Phone: 208-270-9775, Work Phone: 208-557-7222 • Bottles, Jason, 970 N. Yellow Pine Dr., Idaho Falls, ID 83401. Home/Cell Phone: 208-406-9349; Work Phone: 208-533-0608 • *Loftus, Nathan N., 1460 N. Marchesa Ln., Idaho Falls, ID 83402. Home Phone: 208-520-0856; Cell Phone: 208-351-2085; Work Phone: 208-533-6464 • *Griffith, Ted P., 367 Ruth Ave., Idaho Falls, ID 83401. Home Phone: 208-522-3407; Cell Phone: 208-970-2470; Work Phone: 208-533-6347 • *Stacey, Brett C., 2862 Bungalow Dr., Ammon, ID 83406. Home/Cell Phone: 208-881-7217; Work Phone: 208-533-6327 • *DeMott, Ryan B., 2200 Riverstone Way, Idaho Falls, ID 83404. Home Phone: 208-881-1438; Cell Phone: 208-821-6218; Work Phone: 208-533-3265 <p>*Alternate</p> <p>The business address (1580 Sawtelle Street, Idaho Falls, ID 83402), is the same for all the RWMC EAMs. The EAM list above is subject to change due to changes in personnel. The current list of EAMs is maintained in Appendix I of the RWMC Addendum to the ICP EP/RCRA CP.</p>

<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>40 CFR 264.55 Emergency Coordinator.</p> <p>At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility’s Contingency Plan, all operations and activities at the facility, the location and characteristics of the waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the Contingency Plan.</p>	<p>An RWMC EAM is at the RWMC at all times or on call. All of the RWMC EAMs are thoroughly familiar with all aspects of the contingency plan, all RWMC operations/activities (including these units), the location and characteristics of waste handled, volumes of waste, and the location of all records within the RWMC and layout. All of the RWMC EAMs have the authority to commit the necessary resources to carry out the contingency plan. Furthermore, additional training is provided to all facility supervisors who may be called upon to respond to operations events and provide any available waste-specific information. AMWTP Emergency Coordinators who assume responsibility for emergency response at ARP facilities, especially during off hours, will receive ARP-specific training.</p> <p>The RWMC EAMs are responsible for:</p> <ul style="list-style-type: none"> • Ensuring that the emergency procedures are implemented and completed when responding to any incident involving the units permitted herein to mitigate or eliminate any immediate or potential hazard to personnel, the public, or the environment • Serving as the primary lead in coordinating with the INL Fire Department, INL Emergency Operations Center (EOC), and the INL Warning Communications Center (WCC) for the proper support from these organizations • Delegating authority to the RWMC Emergency Response Organization (ERO), as well as the On-Scene Commander (OSC), as appropriate. <p>If an incident overlaps more than one shift, the active RWMC EAM shall maintain the command until responsibility is officially passed to the incoming RWMC EAM.</p>

<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>G-3 Implementation 40 CFR 264.52(a) and 264.56(d)</p> <p>40 CFR 264.52(a) The Contingency Plan must describe the actions facility personnel must take to comply with 264.51 and 264.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.</p> <p>40 CFR 264.51 <i>[The text of 40 CFR 264.51 is located in Section G-1, General Information.]</i></p> <p>40 CFR 264.56 Emergency procedures.</p> <p>(a) <i>[The text of 40 CFR 264.56(a) is located in Section G-4a, Notification.]</i></p> <p>(b) <i>[The text of 40 CFR 264.56(b) is located in Section G-4b, Identification of Hazardous Materials.]</i></p> <p>(c) <i>[The text of 40 CFR 264.56(c) is located in Section G-4c, Assessment.]</i></p> <p>(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:</p> <p>(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and</p>	<p>G-3 Implementation</p> <p>The provisions of the contingency plan will be carried out immediately (activation of the contingency plan) whenever there is a fire, explosion, or unplanned release of hazardous or mixed waste or hazardous waste constituents that threaten human health or the environment. Such an occurrence (incident) may require further classification, as described below, to aid in expediting the appropriate emergency response.</p> <p>Classification of an occurrence is done in accordance with DOE Orders. Through these orders, the DOE has established definitions for occurrence categories and emergency classes. Occurrences are categorized by severity, in order of increasing severity. Emergency occurrences categorized as operational emergencies may be further classified by severity when events occur that represent a specific threat to workers and the public due to the release or potential release of significant quantities of hazardous materials.</p> <p>An operational emergency at the RWMC may require response from the RWMC ERO, or support agencies, because the occurrence involves either an actual or potential fire or explosion involving mixed waste, or an uncontrolled release or threat of an uncontrolled release of mixed waste or constituents.</p> <p>Operational emergencies are defined as an unplanned significant event or condition that requires time-urgent response from outside the immediate/affected area of the incident. An operational emergency shall be declared when events have seriously degraded, or have the potential to degrade, the safety or security of the RWMC. Operational emergencies are classified by severity for specifying the appropriate emergency response actions and notifications, which are commensurate with the degree of hazard for the emergency. Classification aids in the rapid communication of critical information and the initiation of appropriate time-urgent emergency response action. The three classes of operational emergencies, in order of increasing severity, are:</p>

<p>AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p>COMPLIANCE METHODOLOGY</p>
<p>(2) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area, (in the applicable regional contingency plan under part 1510 of this title) or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:</p> <p>(i) Name and telephone number of reporter;</p> <p>(ii) Name and address of facility;</p> <p>(iii) Time and type of incident (e.g., release, fire);</p> <p>(iv) Name and quantity of material(s) involved, to the extent known;</p> <p>(v) The extent of injuries, if any; and</p> <p>(vi) The possible hazards to human health, or the environment, outside the facility.</p> <p>This space was intentionally left blank.</p>	<p>ALERT. An alert shall be declared when events are predicted, are in progress, or have occurred that result in either:</p> <ul style="list-style-type: none"> • An actual or potential substantial degradation in the level of control over hazardous materials (radiological and nonradiological) <p>OR</p> <ul style="list-style-type: none"> • An actual or potential substantial degradation in the level of safety or security of a facility or process that could, with further degradation, produce a site area emergency or a general emergency. <p>If an actual or potential substantial degradation in the level of control over hazardous materials (radiological or nonradiological) occurs, the radiation dose from any release to the environment or radioactive material or a concentration in air of other hazardous material is expected to exceed either:</p> <ul style="list-style-type: none"> • The applicable Protective Action Guide (PAG) or Emergency Response Planning Guideline (ERPG) at or beyond 30 m from the point of release to the environment <p>OR</p> <ul style="list-style-type: none"> • Ten percent of the applicable PAG or ten percent of the ERPG-2 (TEEL-2) value at 100 m <p>AND</p> <p>It is not expected that the applicable PAG or ERPG will be exceeded at or beyond the facility boundary or exclusion zone boundary.</p> <p>SITE AREA EMERGENCY. A site area emergency shall be declared when events are predicted, are in progress, or have occurred that result in either:</p> <ul style="list-style-type: none"> • An actual or potential major failure of functions necessary for the protection of the worker or the public <p>OR</p> <ul style="list-style-type: none"> • An actual or potential major degradation in the level of safety or security of a facility or process that could, with further degradation, produce a general emergency <p>AND</p> <p>The radiation dose from any release of radioactive material or concentration in air from any release of other hazardous material is not expected to exceed the applicable PAG or ERPG at or beyond the site boundary.</p>

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<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>G-4 Emergency Response Procedures</p> <p>G-4a Notification 40 CFR 264.56(a)</p> <p>40 CFR 264.56(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:</p> <p>(1) Activate internal facility alarms or communications systems, where applicable, to notify all facility personnel; and</p> <p>(2) Notify appropriate State or local agencies with designated response roles if their help is needed.</p> <p>NOTE: Notification shall always be made to the State Communications Center even if help is not needed.</p> <p>This space was intentionally left blank.</p>	<p>G-4 Emergency Response Procedures</p> <p>G-4a Notification</p> <p>In the event of a fire or explosion, fire detection equipment (smoke detectors, heat detectors, water flow alarms, or water sprinkler alarms) will automatically notify:</p> <p>(1) The RWMC voice paging system, which will (through exterior and interior building speakers) alert, notify and instruct the RWMC facility personnel and RWMC ERO.</p> <p>(2) The Fire Alarm Center (FAC), which will involve the INL Fire Department.</p> <p>(3) The INL WCC, which will alert other INL EROs.</p> <p>In any event (fire, explosion or release), the person involved/discovering can activate the nearest manual alarms and use communication devices (e.g., cell phones, radios) to summon assistance, and make notifications to the shift manager/EAM and/or the INL Fire Department. The RWMC EAM will ensure that all facility personnel are being, or have been, notified of the imminent or actual emergency situation, including a confirmation call to the WCC, to verify the INL Fire Department is responding. All notifications shall include the following information, as appropriate:</p> <ul style="list-style-type: none"> • Name and telephone number of the caller • Location of the incident and the caller • Time and type of incident • Severity of the incident • Description of the incident • Cause of the incident, if known • Assistance needed to deal with or control the incident • Name and address of the facility • Name and quantity of material(s) involved, to the extent known • Extent of injuries, if any • Possible hazards to human health, or the environment, outside the facility.

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AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION	COMPLIANCE METHODOLOGY
<p>This space was intentionally left blank.</p> <p>G-4c Assessment</p> <p>40 CFR 264.56(c) and 264.56(d) 40 CFR 264.56(c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).</p> <p>40 CFR 264.56(d) <i>[The text of 40 CFR 264.56(d) is located in Section G-3, Implementation.]</i></p>	<p>The RWMC EAM will determine the identity, exact source, amount, and extent of any released materials. Sources of information include, but may not be limited to:</p> <ol style="list-style-type: none"> (1) Observations of personnel involved in or discovering the situation. (2) Permitted units operating records. (3) Material Safety Data Sheets (MSDSs). (4) Monitoring performed by an Industrial Hygienist. (5) The INL Fire Department’s findings/reports. <p>Released or residual materials (residuals from a fire or explosion) that cannot be identified by labels, records, logbooks, identification numbers, or electronic databases will be sampled in accordance with a waste analysis plan (WAP) and analyzed to determine the chemical properties of the waste. The analytical results will determine the proper disposition of unidentifiable waste materials.</p> <p>G-4c Assessment</p> <p>Pre-incident planning for areas where the potential exists for airborne transuranic hazards has been completed. Firefighters responding to incidents in these areas will be in full protective clothing and self-contained breathing apparatus. Fire Department radiological worker training has been enhanced with emphasis on hazardous radiological conditions and the potential for airborne alpha contamination.</p> <p>Once the required notifications have been made, the EAM will ensure the identity, exact source, amount, and extent of released materials spreading from the event location can be determined. Individuals entering the affected area to gather information for the assessment will wear appropriate PPE. The EAM will determine the identity of materials released, based on knowledge of the area and access to the waste identification/characterization information described in Section G-4b.</p> <p>After the materials involved in an emergency are identified, the specific Information on the associated hazards, appropriate PPE, decontamination method, etc., will be obtained from MSDSs or other appropriate chemical reference materials.</p> <p>Based on default conservative estimates of potential source terms, emergency action levels (EALs) have been developed for fires, explosions, radiological releases, and other emergency events. EALs are specific, predetermined, observable criteria used to determine the emergency classification and initial protective actions for operational emergencies. These EALs provide guidance for activating the INL EROs at the appropriate level in response to the incident. These EALs specify the initial protective actions (i.e., evacuation or take cover) to be taken in response to the event.</p>

<p>AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p>COMPLIANCE METHODOLOGY</p>
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AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION	COMPLIANCE METHODOLOGY
<p>This space was intentionally left blank.</p> <p>G-4e Prevention of Recurrence or Spread of Fires, Explosions, or Releases 40 CFR 264.56(e) and (f)</p> <p>40 CFR 264.56(e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.</p>	<p>Personnel Contamination In the event of chemical material in the eye or on the skin, personnel will use the following procedure:</p> <ol style="list-style-type: none"> (1) Wash the eye(s) or skin using the permanent shower/eyewash station for an appropriate time (2) Hold the eyelids open during washing. (3) Notify the EAM. The EAM will notify the appropriate facility personnel, and/or the INL Fire Department who will, if possible, ascertain what chemical material was involved in the injury. (4) Report to the appropriate INL medical facility. <p>In the event of irritation of the eyes, breathing passages, or skin, difficulty in breathing, and/or nausea, light-headedness, vertigo, or blurred vision, personnel will notify the INL Fire Department. The EAM will evacuate and barricade the area to prevent unauthorized entry and notify the appropriate facility personnel-and/or the INL Fire Department, who will attempt to determine what, if any, chemical exposure occurred and what corrective measures are appropriate.</p> <p>Power Failure The permitted units are equipped with a standby power source in the event of utility failure. Should total power failure occur, battery-operated lights will automatically illuminate. In the event of a power failure, personnel will secure any work in progress and leave the area until power is restored.</p> <p>The utilities have backup power replacements as shown:</p> <ul style="list-style-type: none"> • Lights - Fixed battery-operated lights will operate • Alarms - Emergency communication and fire alarm systems have battery backup • Communication Devices – cell phone and/or radio networks will be used • Fire sprinklers - Portable extinguishers and external hose streams. <p>G-4e Prevention of Recurrence or Spread of Fires, Explosions, or Releases</p> <p>Equipment Failure There will be no impact to the permitted units from an equipment failure. Mechanical failures not resulting in spills will be repaired by maintenance personnel.</p>

<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>This space was intentionally left blank.</p>	<p>area of the fire.</p> <p>(5) If the fire spreads or increases in intensity, all personnel will be evacuated to an upwind location.</p> <p>(6) The EAM will remain in contact with responding personnel to advise them of the known hazards.</p> <p>(7) As necessary, actions will be taken to ensure storm drains do not receive potentially hazardous run-off. Dikes will be built around storm drains and any valves controlling discharge will be closed.</p> <p>The EAM is responsible for all emergency response actions conducted within the facility, supporting and coordinating with the On-Scene Commander and for the overall mitigation of the event until the emergency event is terminated. Selection of methods and tactics of fire fighting is the responsibility of the INL Fire Department.</p> <p>Materials involved in a fire can be identified in the following ways:</p> <ul style="list-style-type: none"> • The location of the container may indicate the contents. • If the location of the container does not indicate its contents, the label number can be used to identify the material. If the label is destroyed by fire, the material will be treated as an unknown, evaluated for radiological contamination, and analyzed according to the methods identified in Section C, Waste Characteristics, of this Part B permit. <p>An absorbent will be poured over all chemical residues resulting from a hazardous waste fire. Once the liquid is absorbed, the waste will be swept or shoveled back into containers, and the surface will be cleaned using cleaners appropriate to the identified chemicals.</p> <p>Fire fighting waters will be collected and analyzed, whenever possible, to determine an appropriate disposal method.</p> <p>Explosions The following procedure will be implemented, in the event that an explosion that involves or threatens hazardous or mixed waste occurs, or in the event that an explosion is imminent:</p> <p>(1) The area will be immediately evacuated.</p> <p>(2) Any injured personnel will be immediately transported to the appropriate medical facility for treatment.</p> <p>(3) The EAM will immediately notify the appropriate emergency response personnel and the WCC about the explosion.</p> <p>(4) The EAM will remain in contact with responding personnel to advise them of the known hazards involved and the degree and location of the explosion and associated fires.</p> <p>The EAM is responsible for all emergency response actions conducted within the facility, supporting and coordinating with the On-Scene Commander and</p>

<p>AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p>COMPLIANCE METHODOLOGY</p>
<p>This space was intentionally left blank.</p>	<p>for the overall mitigation of the event until the emergency event is terminated. Selections of methods and tactics of responding to an explosion are the responsibility of the On-Scene Commander.</p> <p>An adsorbent/absorbent will be poured over all chemical residues resulting from a hazardous waste explosion. Once the liquid is absorbed, the waste will be swept or shoveled back into the drums, and the surface cleaned using cleaners appropriate to the identified chemicals.</p> <p>The EAM will ensure all operational units (e.g., process equipment, and ventilation equipment) that may be affected directly or indirectly by the explosion, are secured once the areas have been determined safe for reentry.</p> <p>Releases The EAM will implement the following procedures in the event that: (a) a hazardous or mixed waste or hazardous material spill causes an immediate health hazard; (b) a hazardous or mixed waste or hazardous material spill cannot be contained with secondary containment or application of absorbents; or (c) a threat exists for spilled material to move out of the permitted units:</p> <ol style="list-style-type: none"> (1) Evacuate the immediate area. (2) Review facility records to determine the identity and chemical nature of released material. (3) Ensure personnel don appropriate PPE to prevent exposure to the material. (4) Ensure that the source of the release is secured, if possible. (5) Ensure that a dike is built to contain run-off. (6) Ensure storm drains do not receive potentially hazardous run-off or spill material. Build dikes around storm drains or close any valves controlling discharge. (7) Ensure that appropriate and trained personnel collect and contain released wastes by stabilizing or neutralizing the spilled material, as appropriate, pouring an absorbent over the spilled material, and sweeping or shoveling the absorbed material into drums or other appropriate containers. (8) Ensure that waste that may be incompatible with the released material will be managed in the affected area until cleanup procedures are complete. <p>After collection of a released material, the incident location will be sampled and evaluated. If contamination is found to exist, contaminated materials may be collected, drummed (if appropriate), and removed from the area for disposal at a permitted disposal facility. Depending on the specific conditions, however, RWMC personnel may choose to implement an alternative decontamination method, such as surface cleaning or in situ neutralization or stabilization. Any such alternative will be discussed with the Director of the Idaho Department of Environmental Quality, before implementation.</p>

<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>G-4f Storage and Treatment of Released Materials 40 CFR 264.56(g)</p> <p>40 CFR 264.56(g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.</p> <p>This space was intentionally left blank.</p>	<p>G-4f Storage and Treatment of Released Materials</p> <p>Once initial spill containment has been completed, the EAM will ensure that recovered hazardous materials and waste are properly stored, treated, and and/or disposed, as required by IDAPA 58.01.05.006; 58.01.05.007; and 58.01.05.008 (40 CFR 262, 263, and 264). For spills of liquid that escaped secondary containment, the perimeter of the spill will be diked with an absorbent material, such as absorbent pillows, that is compatible with the material(s) released. Freestanding liquid will be transferred to a labeled compatible container. The remaining liquid will be absorbed with an absorbent material and swept or scooped into a labeled compatible container. Spill residue will be removed. Spills of dry material will be swept or shoveled into a labeled compatible recovery container. Material recovered from the spill will be transferred to a new or clean-washed container that held a compatible material. All containers will meet Department of Transportation (DOT) specifications for shipping the recovered wastes and materials.</p> <p>Hazardous waste resulting from the cleanup of a fire, explosion, or release will be contained and managed as a hazardous waste until such time that it can be determined that the waste is not hazardous, as defined in IDAPA 58.01.05.005 (40 CFR 261, Subparts C and D). In most cases, the hazardous waste inventory logs completed when containers are placed in storage at the permitted units will allow a determination of the hazardous wastes and hazardous waste constituents present in any cleanup of a release or the residues from an emergency condition. When necessary, however, samples of the waste will be collected and analyzed to determine the presence of any hazardous characteristics and/or hazardous waste constituents; this information is needed to evaluate disposal options. Approved sampling and analytical methods will be used.</p> <p>If the entire permitted unit has been impacted because of a fire, explosion, or spill, pending decontamination, no hazardous or mixed waste will be accepted for storage or treatment, until it is restored to design status. All cleanup and decontamination residues will be packaged, handled, and stored according to applicable state or federal regulations, DOE orders, and permitted unit procedures. During this period, storage will occur at a less-than-90-day storage site. All liquid wastes will be provided with secondary containment. If unaffected areas of the permitted unit can be used, containers of waste from the affected area(s) will be cleaned, overpacked, placed in spill pans, or transferred to new containers and moved to the unaffected areas.</p> <p>The contaminated area will be decontaminated. If the release results in contamination to a permeable surface, such as soil, asphalt, or other surface, the material will be removed and placed in DOT-approved shipping containers. Contaminated surface materials, as well as materials used in the cleanup (e.g., rags and absorbent material), will be containerized and placed into storage, pending transfer to an on- or off-Site treatment or disposal facility, in accordance with applicable regulations. Clean soil or new asphalt will be placed at the spill location.</p>

<p>AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p>COMPLIANCE METHODOLOGY</p>
<p>G-4g Incompatible Waste 40 CFR 264.56(h)(1)</p> <p>40 CFR 264.56(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:</p> <p>(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and</p> <p>G-4h Post-Emergency Equipment Maintenance 40 CFR 264.56(h)(2)</p> <p>40 CFR 264.56(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:</p> <p>(2) All emergency equipment listed in the CP is cleaned and fit for its intended use before operations are resumed.</p>	<p>If the spill was contained within the secondary containment area, other containers within that area will be decontaminated with water and/or a non-hazardous detergent or another appropriate cleaning solution. Contaminated wash water or cleaning solution will be transferred to an appropriate container, labeled, and placed in storage, pending transfer to an on- or off-Site treatment or disposal facility, in accordance with applicable regulations.</p> <p>G-4g Incompatible Waste</p> <p>In the event of a hazardous material or hazardous waste release, the EAM will ensure that no wastes will be received, treated, or stored in the affected areas until cleanup operations have been completed. This will ensure that incompatible waste will not be present in the vicinity of the release.</p> <p>If waste is generated as the result of a spill or release of hazardous materials or hazardous waste, the waste generated as a result of abatement and cleanup will be evaluated to determine its compatibility with other wastes being managed in temporary storage areas. The evaluation will identify the material or waste that was spilled or released and determine its characteristics (e.g., ignitable, reactive, corrosive, and toxic). The waste generated by the abatement and cleanup activities will be stored in that part of the temporary storage area of the permitted units that has been established to manage wastes with which it is compatible. Administrative controls, such as installing barriers and/or a cordon around the temporary storage area(s), will be implemented to ensure segregation of wastes.</p> <p>The EAM will not allow hazardous or mixed waste operations to resume in a building or area in which incompatible materials have been released before ensuring that necessary post-emergency cleanup operations to remove potentially incompatible materials have been completed.</p> <p>G-4h Post-emergency Equipment Maintenance</p> <p>The EAM will ensure that emergency equipment is cleaned and ready for its intended use before operations are resumed. Any equipment that cannot be decontaminated may be discarded as waste (i.e., hazardous, mixed, solid, as appropriate). Equipment or supplies that cannot be reused following an emergency will be replaced. After the equipment has been cleaned, repaired, or replaced, a post-emergency facility and equipment inspection will be performed, and the results will be recorded.</p> <p>Cleaning and decontaminating equipment may be accomplished using non-hazardous materials whenever possible, by physically removing gross or solid residue, rinsing with water or another non-hazardous liquid, and/or washing with detergent and water. Decontamination and cleaning will be conducted in a confined area, such as a wash pad or building equipped with a floor drain and sump isolated from the environment. Care will be taken to prevent wind dispersion of particles and spray. Liquid or particulate resulting from cleaning and decontamination of equipment will be placed in clean, compatible containers. Waste resulting from decontamination operations will be analyzed for hazardous waste constituents and/or hazardous waste characteristics to determine proper management.</p>

<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>G-4i Container Spills and Leakage 40 CFR 264.52, 264.171, and 264.175(b)(5)</p> <p>40 CFR 264.52 Content of contingency plan.</p> <p>(a) Regulation text is located in Section G-3, Implementation.</p> <p>(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with part 112 of this chapter, or part 1510 of chapter V, or some other emergency or CP, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part.</p> <p>(c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services pursuant to 264.37.</p> <p>(d) Regulation text is located in Section G-2, Emergency Coordinators.</p> <p>(e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.</p>	<p>When RWMC facility personnel has completed any post-emergency cleanup of waste and hazardous residues from areas where waste management operations are ready to resume, and the EAM has ensured that all emergency equipment used in managing the emergency has been cleaned or replaced and is fit for service, the following notifications will be made, EPA Region 10 Administrator, the Director of the Department of Environmental Quality, and any relevant local authorities. This post-emergency notification complies with IDAPA 58.01.05.008 [40 CFR 264.56(i)].</p> <p>G-4i Container Spills and Leakage</p> <p>40 CFR 264.52(a) is addressed in Sections G-3 (Implementation), G-4d (Control Procedures), and G-4e (Prevention of Recurrence or Spread of Fires, Explosions, or Releases)</p> <p>Hazardous waste management provisions are included in the contingency plan.</p> <p>40 CFR 264.52(c) is addressed in Sections G-1 (General Information) and G-6 (Coordination Agreements).</p> <p>40 CFR 264.52(d) and 40 CFR 264.55 are addressed in Section G-2, Emergency Coordinator.</p> <p>40 CFR 264.52(e) is addressed in Section G-5, Emergency Equipment.</p>

<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>(f) The plan must include an evacuation plan for facility personnel where there is a possibility that an evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).</p> <p>40 CFR 264.51 <i>[The text of 40 CFR 264.51 is located in Section G-1, General Information.]</i></p> <p>40 CFR 264.171 Condition of containers. If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements of this part.</p> <p>40 CFR 175(b) A containment system must be designed and operated as follows:</p> <p>(5) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.</p>	<p>40 CFR 264.52(f) is addressed in Section G-7, Evacuation Plan.</p> <p>Any/all containers, used for storage or treatment, found through inspection or use, not to be in good condition, will either be overpacked or the waste will be removed and the “empty container” disposed of accordingly. 40 CFR 264.171 is further addressed in Section D-1, Process Information – Containers.</p> <p>When a spill or leak from a container is encountered, the shift manager/EAM will be notified and trained RWMC facility personnel and/or the INL Fire Department will don the appropriate PPE, maintain a safe distance, assess the situation, determine the proper and safe response action, gather the necessary equipment from the spill control cabinet, and respond accordingly (e.g., absorb/neutralize, shovel/mop up into a compatible container and decontaminate the area).</p> <p>If the spill or leak is of a nature that is not readily addressed (e.g., an industrial hygienist is required to monitor gases or vapors) the RWMC EAM may get involved and a hazardous work permit may be required before cleanup can commence. The hazardous work permit will specify the necessary PPE and spill response equipment, the roles of the responders, and the cleanup/decontamination procedures to be employed.</p> <p>In all cases: the proper reports will be filed in accordance with Section G-8 (e.g., inspection log sheets); the incident will be documented in the unit’s operating record; and the PPE/equipment used in the response will be decontaminated or disposed of and replaced.</p>

<p align="center">AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p align="center">COMPLIANCE METHODOLOGY</p>
<p>G-5 Emergency Equipment 40 CFR 264.52(e)</p> <p>40 CFR 264.52(e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.</p>	<p>G-5 Emergency Equipment</p> <p>A variety of equipment is available at the RWMC for emergency response, containment, and cleanup operations. This includes equipment for spill control, fire control, personnel protection, monitoring and medical attention, communications, and alarms. This equipment is immediately available to emergency response personnel. A listing of available emergency equipment is shown in Table G-1. In the event a spill cannot be mitigated with the supplies kept at the permitted units, additional response supplies are available throughout the RWMC, and throughout the INL.</p> <p>Safety and emergency equipment located at the WMF-698 includes:</p> <ul style="list-style-type: none"> • Underground water supply with Hydrants throughout the SDA • Fire alarm system (manual pull station, horn/strobe devices) • Portable fire extinguishers • Safety showers and eye wash stations • Site-wide evacuation alarm system • Communication devices (two-way radios) <p>Safety and emergency equipment located at the WMF-1617 includes:</p> <ul style="list-style-type: none"> • Underground water supply with Hydrants throughout the SDA • Dry Chemical Fire Suppression System (Drum Packaging Stations and on mobile equipment) • Smoke/heat detection system (Airlocks) • Video Fire/smoke detection system (Retrieval Area) • Fire Alarm System (manual pull station, horn/strobe devices) • Safety showers and eye wash stations • Portable fire extinguishers • Site-wide evacuation alarm system • Communication devices (two-way radios) <p>Safety and emergency equipment located at the WMF-1619 includes:</p> <ul style="list-style-type: none"> • Underground water supply with Hydrants throughout the SDA • Dry Chemical Fire Suppression System (Drum Packaging Stations and on mobile equipment) • Smoke/heat detection system (Airlocks) • Video Fire/smoke detection system (Retrieval Area) • Fire Alarm System (manual pull station, horn/strobe devices) • Safety showers and eye wash stations • Portable fire extinguishers • Site-wide evacuation alarm system • Communication devices (two-way radios)

AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION	COMPLIANCE METHODOLOGY
	<p>The following is an example list of the safety equipment available for spill control for the permitted units:</p> <ul style="list-style-type: none"> • Spill control pillows or absorbent socks • Hazardous material pgs • Hazardous material bags • Radioactive waste bags • Plastic buckets • Safety rope • Chemical spill warning/danger signs • Radiation rope/ribbon and radiological tags/signs • pH indicator • Shovel • Smear paper and envelopes • Grease/standard pencils and Paper • Absorbent • Acid/caustic neutralizers • Solvent cleanup material • Safety showers/Eye wash stations <p>Safety and emergency equipment provide adequate capabilities for trained personnel to respond to and control leaks, spills, and emergency situations until assistance arrives. The INL Fire Department has other emergency equipment including, but not limited to, self-contained breathing apparatus (SCBAs), stretchers, and first-aid kits.</p>
<p>G-6 Coordination Agreements 40 CFR 264.52(c) and 264.37</p> <p>40 CFR 264.52(c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services pursuant to 264.37.</p> <p>40 CFR 264.37 Arrangements with local authorities.</p> <p>(a) The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:</p> <p>(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes.</p> <p>(2) Where more than one police and fire</p>	<p>G-6 Coordination Agreements</p> <p>The RWMC EAM will ensure initial responders are dispatched to an emergency event originating at the RWMC. However, the level of response depends on the nature and extent of the incident. If warranted, additional INL resources are obtained, such as on-Site security, medical, and fire assistance, which are available on a 24-hour basis.</p> <p>Section G-1, General Information [40 CFR 264.53 (b)], contains the list of off-Site state, local and tribal agencies that are familiar with the contingency plan and may be called upon through agreements with the DOE-ID.</p>

<p>AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</p>	<p>COMPLIANCE METHODOLOGY</p>
<p>department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;</p> <p>(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and</p> <p>(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.</p> <p>(b) Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.</p>	
<p>G-7 Evacuation Plan 40 CFR 264.52(f)</p> <p>40 CFR 264.52(f) The plan must include an evacuation plan for facility personnel where there is a possibility that an evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).</p>	<p>G-7 Evacuation Plan</p> <p>The normal actions to protect non-emergency personnel are to minimize their exposure to radiation, airborne radioactivity, hazardous chemicals, and airborne hazardous chemicals, by seeking shelter, avoiding the accident area, or evacuating selected buildings or areas. In the event of an emergency, which results in high radiation, hazardous chemical levels, or a continuing release to the environment, it may become necessary to evacuate the entire RWMC area. Building and Emergency Plan Maps depicting evacuation routes are located throughout the RWMC buildings. Upon exiting a building, personnel proceed to a designated staging area not affected by the emergency.</p> <p>The RWMC evacuation system alerts personnel in case of an evacuation. This system is on backup power; should power fail, it will automatically switch to a battery. Evacuation sirens are strategically located throughout the RWMC to provide coverage for all occupied areas. If the evacuation alarm is out of service or fails to operate, the evacuation will be communicated over the voice paging system, by word of mouth, or by security personnel using sirens or the voice amplifiers in their vehicles.</p> <p>Designated personnel, known as area wardens, are assigned responsibility for ensuring that personnel are evacuated from the area warden's assigned area or building or accounted for during evacuations.</p> <p>The following procedure will allow for a safe, coordinated evacuation:</p> <p>(1) When an evacuation is announced, stop work.</p>

AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION	COMPLIANCE METHODOLOGY
<p>This space was intentionally left blank.</p>	<ol style="list-style-type: none"> (2) If possible and directed by the EAM, shut down pre-designated operations that could contribute to further hazards, unless an "immediate" building evacuation is announced. (3) Follow the voice-paging instruction or proceed to the closest building exit, unless blocked by hazards. (4) Do not remain in the affected area, and assist injured personnel in leaving the area, if possible. (5) Exit the facility through the security access points to the designated assembly area. (6) Report to designated assembly area. (7) Be continually cognizant of wind direction (stay upwind) and emergency equipment. (8) Do not reenter the fenced area of the RWMC, until the EAM authorizes reentry. <p>During an evacuation, all personnel will remain in the designated assembly area, until given further instructions.</p> <p>The primary evacuation routes for the permitted units are depicted in Exhibits located at the end of this section. Alternative evacuation routes are through the nearest unobstructed emergency exit.</p> <p><u>Evacuation Alarm</u> signal is an alternating tone-generated siren.</p> <p><u>Fire Alarm</u> is announced over the RWMC voice paging system.</p> <p><u>Take-Cover Alarm</u> is a steady tone-generated siren. This signal provides an emergency option to total RWMC evacuation.</p>
<p>G-8 Required Reports 40 CFR 264.56(j) and 40 CFR 264.56(i)</p> <p>40 CFR 264.56(j) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the CP. Within 15 days after the incident, he must submit a written report on the incident to the Regional Administrator. The report must include:</p> <ol style="list-style-type: none"> (1) Name, address, and telephone number of the owner or operator; (2) Name, address, and telephone number of the facility; (3) Date, time, and type of incident (e.g., fire, explosion); 	<p>G-8 Required Reports</p> <p>Any fire, explosion, or unplanned release of hazardous or mixed waste or hazardous constituent requiring activation of the contingency plan will be reported by the Permittee in writing within 15 days to the Director of the Department of Environmental Quality. Such reports will include, as a minimum, the following:</p> <ol style="list-style-type: none"> Name, address, and telephone number of the facility owner/operator Name, address, and telephone number of the facility Date, time, and type of incident (e.g., fire, explosion, release)

AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION	COMPLIANCE METHODOLOGY
<p>(4) Name and quantity of material(s) involved;</p> <p>(5) The extent of injuries, if any;</p> <p>(6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and</p> <p>(7) Estimated quantity and disposition of recovered material that resulted from the incident.</p> <p>40 CFR 264.56(i) The owner or operator must notify the Regional Administrator, and appropriate State and local authorities, that the facility is in compliance with paragraph (h) of this section before operations are resumed in the affected area(s) of the facility.</p>	<p>Name and quantity of the material(s) involved</p> <p>Extent of any injuries to personnel at the facility</p> <p>An assessment of any actual or potential hazards to human health or the environment, as applicable</p> <p>Estimated quantity and disposition of material recovered from the incident (includes fire fighting materials, such as water, foam, adsorbents/absorbents, etc.).</p> <p>In accordance with IDAPA 58.01.05.008 [40 CFR 264.56(i)], the Permittee will notify the Director of the Department of Environmental Quality that:</p> <ul style="list-style-type: none"> • The permitted units are in compliance with requirements for the cleanup of areas affected by the emergency and that the emergency equipment used in the emergency response has been cleaned or replaced and is fit for the intended use, before the resumption of waste management activities. • The permitted units have experienced a fire, explosion, spill, or release of hazardous waste or hazardous waste constituents or an emergency resulting in a release of a hazardous substance included in 40 CFR 302.4 that could threaten human health or the environment outside the RWMC. The contingency plan will be activated, and the EAM will ensure that local authorities are notified in writing.

Table G-1. Emergency response equipment at available at WMF-698, WMF-1617 and WMF-1619.

Emergency Equipment	Location	Capabilities
Fire Control		
Underground water supply with hydrants	Throughout the SDA	Fire control / suppression
Dry chemical fire suppression system	Only found at WMF-1617-1619 Drum Packaging Stations and on WMF-1617/-1619 mobile equipment	Fire control / suppression
Portable fire extinguisher/media (ABC, CO ₂ , Met-L-X, as appropriate)	See Exhibits G-1, G-2, and G-3	Use during incipient stage of fire (10-60 second discharge time)
Emergency Communication/Alarm System		
Manual fire alarm pull stations	Located throughout	Summon INL Fire Department
Communication Devices (two-way radios)	Located throughout	On-Site / Off-Site communications and emergency communications
Site-wide evacuation alarm	Alarm may be sounded throughout RWMC	Provides immediate notice of evacuation
Fire Alarm System	Located throughout	Fire alarm/summon fire department
Video fire/smoke detection system	WMF-1617/-1619 Retrieval Area	Fire/smoke detection
Smoke/heat detection system	WMF-1617/-1619 Airlocks	Fire detection
Spill Control, Containment, Cleanup		
Plastic buckets	See Exhibits G-1, G-2 and G-3	Clean up small spills
Spill control pillows or absorbent socks	See Exhibits G-1, G-2 and G-3	Contain / absorb small spills
Hazardous material pgs	See Exhibits G-1, G-2 and G-3	Contain / absorb small spills
Hazardous material bags	See Exhibits G-1, G-2 and G-3	Clean up small spills
Absorbent	See Exhibits G-1, G-2 and G-3	Contain / absorb small spills
Radioactive waste bags	See Exhibits G-1, G-2 and G-3	Contain radioactive waste
Radiation rope/ribbon/and radiological tags/signs	See Exhibits G-1, G-2 and G-3	Isolate affected area
Smear paper and envelopes	See Exhibits G-1, G-2 and G-3	Characterize spilled material
Safety rope and safety signs	See Exhibits G-1, G-2 and G-3	Isolate affected area
Acid / Chemical spill warning (danger) signs	See Exhibits G-1, G-2 and G-3	Warn others
pH indicator	See Exhibits G-1, G-2 and G-3	Characterize spilled material
Shovel	See Exhibits G-1, G-2 and G-3	Clean up small spills
Solvent cleanup materials	See Exhibits G-1, G-2 and G-3	Clean up small solvent spills
Acid/caustic spill supplies	See Exhibits G-1, G-2 and G-3	Clean up small acid/caustic spills
Safety showers	See Exhibits G-1, G-2 and G-3	Remove contamination
Eye wash stations	See Exhibits G-1, G-2 and G-3	Flush eyes for chemical and particulate contamination

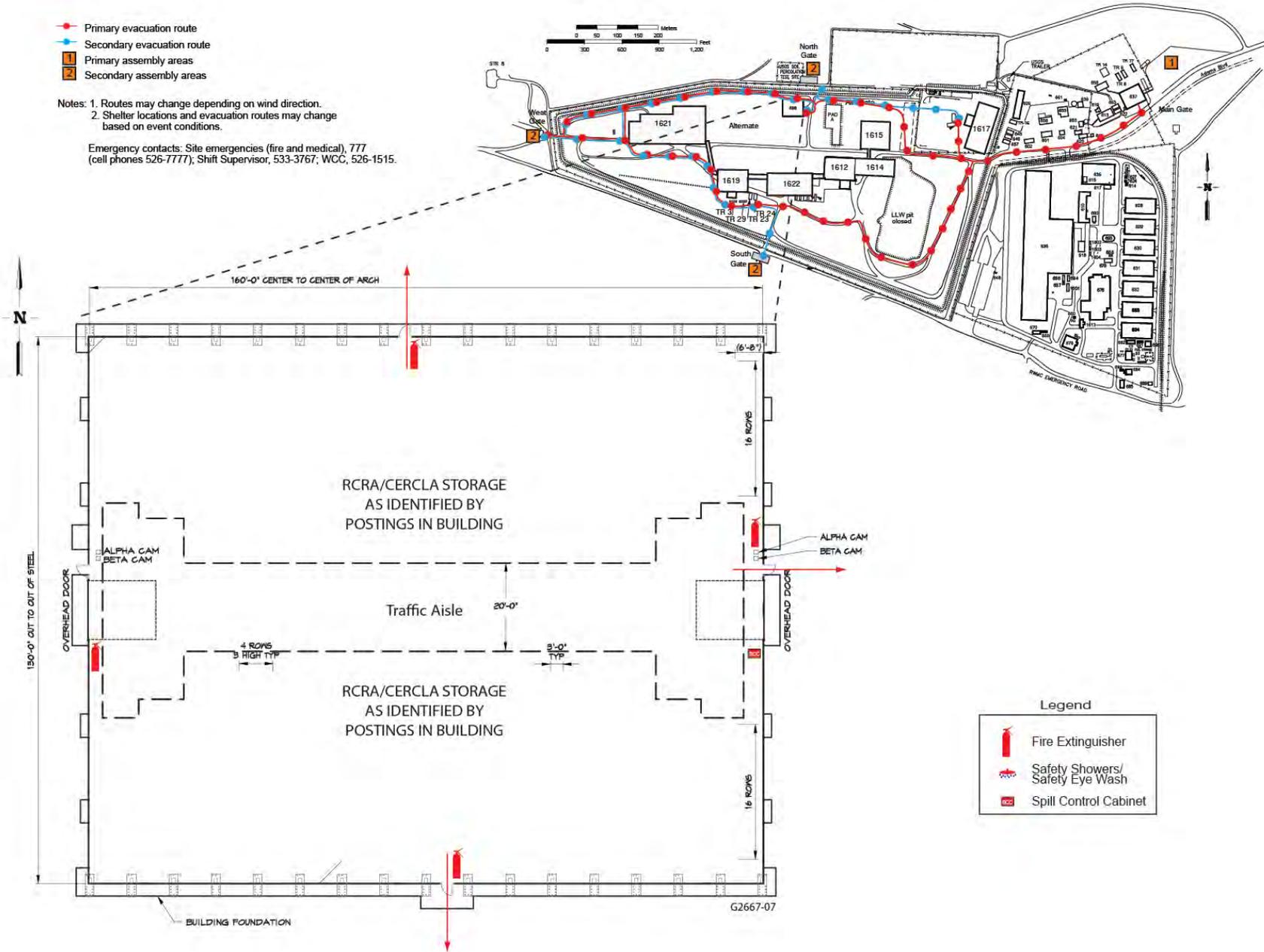


Exhibit G-1. WMF-698 Evacuation Routes and Emergency Equipment.

- Primary evacuation route
- Secondary evacuation route
- 1 Primary assembly areas
- 2 Secondary assembly areas

Notes: 1. Routes may change depending on wind direction.
 2. Shelter locations and evacuation routes may change based on event conditions.

Emergency contacts: Site emergencies (fire and medical), 777 (cell phones 526-7777); Shift Supervisor, 533-3767; WCC, 526-1515.

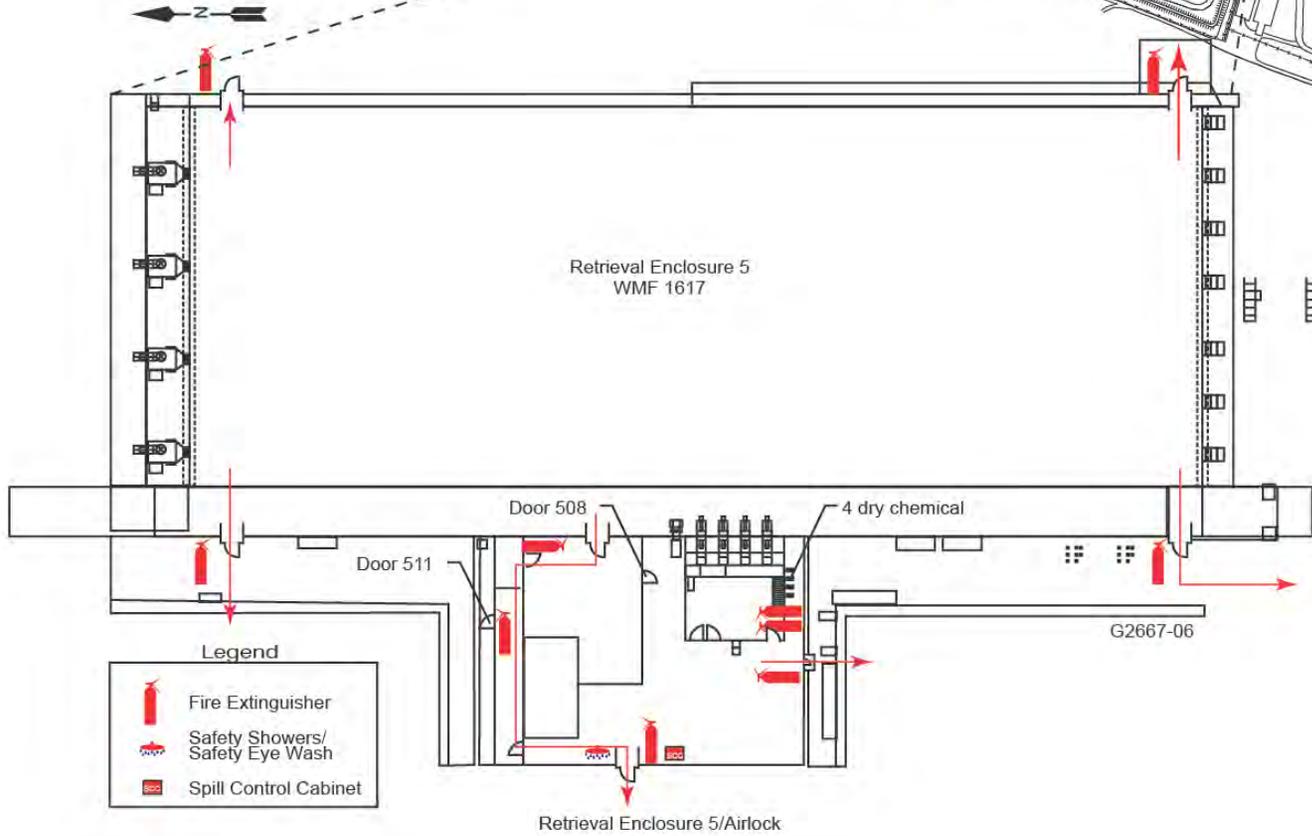
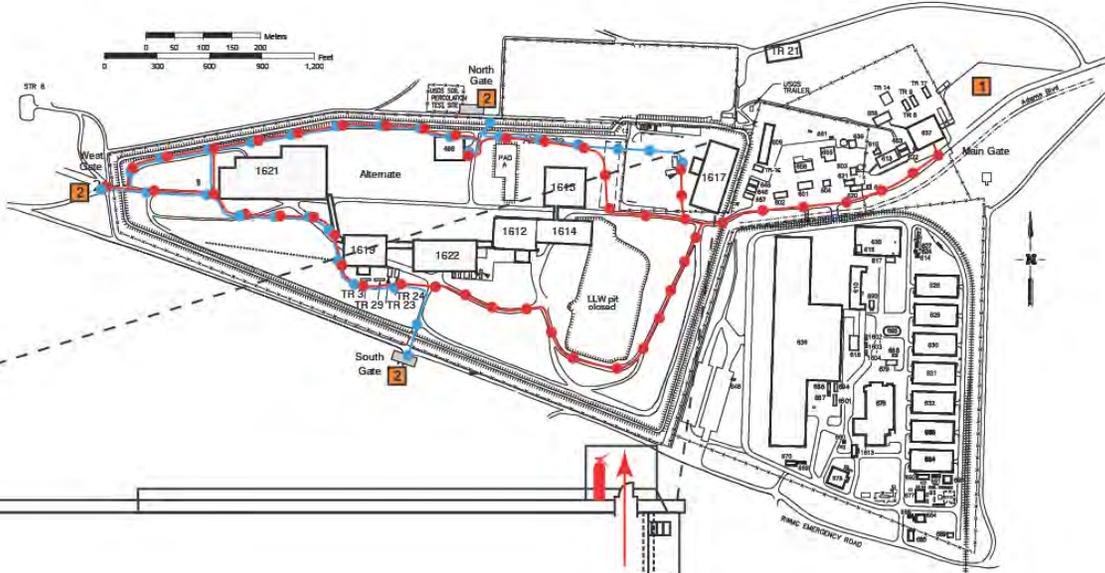


Exhibit G-2. WMF-1617 Evacuation Routes and Emergency Equipment.

HWMA/RCRA PART B PERMIT

FOR THE
IDAHO NATIONAL LABORATORY

BOOK 3A

Volume 18 –Radioactive Waste Management Complex

ATTACHMENT 8

SUBSURFACE DISPOSAL AREA (SDA)

WMF-698

WMF-1617

WMF-1619

Section I

CLOSURE AND POST CLOSURE REQUIREMENTS

Revision Date: December 20, 2019

CONTENTS

I.	CLOSURE AND POST-CLOSURE REQUIREMENTS.....	1
I-1.	Closure and Post-Closure Requirements [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR 270.14(b)(13), 264.112(a)(1) and (2)]	2
I-1a.	Closure Performance Standards (IDAPA 58.01.05.008; 40 CFR 264.111).....	3
I-1b.	Partial Closure Activities [IDAPA 58.01.05.008; 40 CFR 264.112(a)(1)].....	6
I-1c.	Maximum Waste Inventory [IDAPA 58.01.05.008; 40 CFR 264.112(b)(3)].....	6
I-1d.	Inventory Removal and Disposal or Decontamination of Equipment, Structures, and Soils (IDAPA 58.01.05.008; 40 CFR 264.111, 264.112, and 264.114)	6
I-1d(1)	Closure of Containers (IDAPA 58.01.05.008; 40 CFR 264.178	6
I-1d(8)	Closure of Miscellaneous Units [IDAPA 58.01.05.012, 40 CFR 270.23(a)(2)].....	6
I-1e.	Ancillary Closure Activities [IDAPA 58.01.05.008; 40 CFR 264.112(b)(5)].....	7
I-1e.(1)	Waste Management.....	7
I-1f.	Schedule for Closure [IDAPA 58.01.05.008; 40 CFR 264.112(b)(6)]	8
I-1g.	Extension for Closure Time [IDAPA 58.01.05.008; 40 CFR 264.113(a) and 264.113(b)].....	9
I-1h.	Certification of Closure [IDAPA 58.01.05.012 and 58.01.05.008; 40 CFR 270.11(d) and 264.115]	10
I-2.	Post-Closure Plan and Notices [IDAPA 58.01.05.012; 40 CFR 270.14(b)(13) and (14)].....	10
I-9.	Use of State Required Financial Mechanisms and State Assumption of Responsibility [IDAPA 58.01.05.012 and 58.01.05.008; 40 CFR 270.14(b)(18) and 264.149 and 264.150]	11

I. CLOSURE AND POST-CLOSURE REQUIREMENTS

This closure plan specifies performance standards and procedures for the waste management units addressed in this permit: miscellaneous treatment/storage processes in WMF-1617 and WMF-1619; container storage in WMF-698, WMF-1617, and WMF-1619; and the five outside storage areas. This plan addresses all units, although they may not be closed at the same time. The activities and closure performance standards described in this plan apply only to Resource Conservation and Recovery Act (RCRA)-regulated wastes and the storage and treatment areas that came in contact with these RCRA-regulated wastes. Prior to initiation of closure, all containers will be removed from the units and transferred to a RCRA treatment, storage, and/or disposal (TSD) unit. Notification of intent to initiate closure of WMF-1617 was submitted to the DEQ on August 7, 2019, and closure was initiated on October 1, 2019. Additional closure requirements specific to WMF-1617 are included in item 1a of Section I-1a., Closure Performance Standards (IDAPA 58.01.05.008; 40 CFR 264.111).

Closure of the subject units may result in process equipment and building components being reused for any number of activities other than RCRA hazardous waste management processes. Conversely, certain process equipment or building components may be declared waste and managed as such. The closure performance standards for the storage and treatment areas will be the removal of gross, visible RCRA waste from the storage and treatment areas, including treatment/storage trays and drum packaging stations (DPSs), and equipment, followed by transition of the areas and equipment back to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program.

HWMA/RCRA and CERCLA Integration

HWMA/RCRA closure will be integrated with the CERCLA non-time critical removal action (NTCRA) to the extent practicable while ensuring protection of human health and the environment. WMF-1617, WMF-1619, and WMF-698 have been added to the scope of the “Action Memorandum for General Decommissioning Activities under the Idaho Cleanup Project” (Action Memorandum) through a November 3, 2011, Addendum Letter submitted by DOE-ID [“Addendum to Table 1. of the Action Memorandum for General Decommissioning Activities under the Idaho Cleanup Project (DOE/ID-11293, Revision 1)”] (EM-FMDP-11-097, CCN 314182) and approved by DEQ (WDP-RWMC-11-097, CCN 314183) and Dennis Faulk, EPA, (CCN 314184). The closure approach and the subsequent management of the waste generated during the closure will be in accordance with this closure plan and, where appropriate, with the applicable or relevant and appropriate requirements (ARARs) of the General

1 D&D Action Memorandum. D&D will be completed under CERCLA after completion of
2 HWMA/RCRA closure and the units are transferred back to the CERCLA Program.

3 **I-1. Closure and Post-Closure Requirements [IDAPA 58.01.05.008 and 58.01.05.012; 40 CFR**
4 **270.14(b)(13), 264.112(a)(1) and (2)]**

5 Prior to processing HWMA/RCRA waste, WMF-1617 and WMF-1619 were used to remediate
6 CERCLA waste under the OU 7-13/14 Record of Decision. Targeted CERCLA waste was excavated
7 with standard excavation equipment and transported to the drum packaging stations for repackaging in
8 new drums. All visible targeted waste was removed from the retrieval area following CERCLA
9 remediation activities. The retrieval area consists of native soils that have been graded. Radiological
10 surveys indicate the area is contaminated with non-uniform levels of transuranic isotopes following the
11 CERCLA remediation activities.

12 Prior to initiation of processing of HWMA/RCRA waste in WMF-1617 and WMF-1619, visible
13 soil and waste residues were cleaned out of the drum packaging stations, waste trays, and excavation
14 equipment surfaces used to process CERCLA waste (e.g., excavator bucket). The removal was
15 accomplished by sweeping, wiping with rags, scraping etc., until all visible waste and soil was removed
16 (e.g., clean debris surface). Video documentation of the initial conditions in the WMF-1617 and WMF-
17 1619 were recorded (and provided to DEQ) to verify absence of visible waste and stained soils.

18 During HWMA/RCRA waste processing, any spilled waste is cleaned up at the time the spill occurs.
19 Procedural steps mandate removal of all spilled material and any surrounding stained soils. Soils
20 approximately 4” beyond the extent of visible soil staining are removed in the event of a liquid spill to
21 ensure that all spilled material is removed. Documentation of spill clean-up is included in the operations
22 record and will be provided to the qualified engineer to be addressed in the closure certification.

23 This closure plan describes the procedures to be used to remove visible waste residues from
24 process equipment and building components and return of the equipment and structures to the CERCLA
25 program. This closure plan does not include contingent plans for closure as a landfill and post-closure
26 maintenance as a disposal unit.

27 **WMF-698, WMF-1617 and WMF-1619 Process Information**

28 Section D "Process Information" in Book 3A of this permit presents specific design and process
29 information for the RWMC SDA units.

1 Significant to closure activities, all containment areas (secondary containment pans and lined
2 waste trays) and equipment surfaces of WMF-698, WMF-1617, and WMF-1619 associated with storage
3 and treatment activities were designed such that foreseeable decontamination efforts would be facilitated.
4 Additionally, practices were followed such that treatment or components not functionally required during
5 a given treatment campaign were isolated from the potentially contaminated work area.

6 **I-1a. Closure Performance Standards (IDAPA 58.01.05.008; 40 CFR 264.111)**

7 The closure process is designed to remove and manage waste, eliminate the need for post-closure
8 activities, and minimize generation of waste.

- 9 1. The closure performance standards for the WMF-698, WMF-1617, and WMF-1619 units for
10 RCRA/Hazardous Waste Management Act (HWMA) closure activities are considered precursor
11 efforts to the ultimate facility deactivation and decommissioning (D&D) under CERCLA after
12 completion of closure. Technical approaches to this ultimate facility D&D will have practical
13 bearing on the appropriate approach to RCRA/HWMA closure. This integration of
14 RCRA/HWMA closure activities with CERCLA and subsequent D&D activities is reflected
15 below, as it relates to contaminated process equipment and building components that would
16 remain in place and undergo subsequent facility D&D. All collected dirt and other residuals
17 generated from this closure activity will be managed as hazardous/mixed waste.

18 1a. Closure Requirements Specific to WMF-1617:

19 Closure of WMF-1617 will include removal of gross, visible RCRA waste within the
20 treatment/storage containment pans and trays, Drum Packaging Stations (DPSs), and on
21 equipment used in the repackaging/treatment processes. The waste material remaining in the
22 facility and on the equipment is the same waste stream that was processed at the time of the April
23 11, 2018, drum event and during the drum event recovery actions. During closure, the residual
24 material removed from trays/containment pans, DPSs, and other areas (including waste from
25 vacuums used to remove waste residue from surfaces, trays, pans, and equipment) will be
26 processed with the additional controls and operational restrictions used to process sludge in
27 WMF-1619 – to address potential reactions prior to the material being processed in the DPSs –
28 and placed in output drums. The sorting table and 14-by-18-ft secondary containment pan will
29 remain in the WMF-1617 retrieval area for purposes of processing this residual waste. The waste
30 will be emptied into the sorting table and raked to mix the material and expose it to air. The
31 material will then be placed in trays and evenly distributed. Trays will be staged in the retrieval

1 area for a minimum of 24 hours. At the end of the 24-hour hold time, the waste will be evaluated
2 for elevated temperatures (>4°F above ambient) using the thermal camera(s). If the waste
3 temperature is >4°F above ambient temperature, the waste will be reconditioned by thoroughly
4 raking again and holding for another 24-hour period. Once this 24-hour hold is complete, the
5 temperature will again be monitored using a thermal camera. If the temperature variation of the
6 waste is verified to be <4°F above ambient temperature, the waste may be processed through the
7 drum packaging stations (DPSs). If the temperature variation is >4°F above ambient temperature,
8 then the reconditioning rake and hold process will be repeated until the temperature after a 24-
9 hour hold is not >4°F above ambient. After repackaging through the DPSs, the repackaged waste
10 will be transferred to AMWTP for characterization.

11 Following the processing and repackaging of residual waste, the treatment/containment pans,
12 DPSs, and other equipment will be closed as described in the performance standards 2 through 4.

- 13 2. The performance standard for reusable process equipment and building components, which may
14 include containment pans, trays, excavators and telehandlers, and /or drum venting tool, will be a
15 degree of decontamination consistent with the intended "post closure" use of the process
16 equipment or building components as determined by Idaho Cleanup Project Core-accepted
17 industrial hygiene and health physics protocols and guidelines. The operating record will be
18 reviewed to determine if any waste material contacted the drum storage secondary containment
19 pans or the waste tray secondary containment pans. This operational record review will be
20 supplemented by visual observation, where physical access, radiological conditions, and
21 industrial hygiene concerns permit.

22 2a. Construction of Temporary Passageway between WMF-1614 and WMF-1617:
23 To allow transfer of heavy equipment from WMF-1617 to be reused to support CERCLA
24 activities, a temporary fabric passageway will be constructed by the CERCLA program.
25 Construction will start at the east end of WMF-1614 and tie in at the south side of WMF-1617
26 between two damper shrouds. The passageway fabric will be heat-sealed to the outside layer of
27 the WMF-1617 retrieval area tent fabric and the tent fabric cut away for the entrance to the
28 passageway. Upon completion of moving heavy equipment to be reused from WMF-1617, the
29 tent will be patched and the passageway removed. The transfer of equipment is to support future
30 use of the equipment for CERCLA operations. This CERCLA passageway will not change or
31 modify the RCRA units in WMF-1617. This passageway will only be used for moving equipment
32 such as excavators and loaders from WMF-1617 to CERCLA facilities and will not be used for

1 moving equipment such as containment pans and trays, which may be removed from the facility
2 for reuse at any time during closure.

3 3. The performance standard for contaminated process equipment and building components that
4 would remain in place and undergo subsequent facility D&D (such as the DPS units, the airlock
5 structure, walls of the airlock rooms, containment pans, drum venting tool, etc.) will be removal
6 of all gross visible RCRA waste material. The level of physical decontamination will be that
7 required to render the equipment or structural surfaces "clean," analogous to that specified and
8 identified under IDAPA 58.01.05.011 (40 CFR 268.45).

9 4. The performance standard for contaminated process equipment and components to be managed as
10 hazardous/mixed debris will be the alternative debris treatment standards for hazardous waste
11 debris in IDAPA 58.01.05.011 (40 CFR 268.45), or the equipment/components will be managed
12 as hazardous/mixed waste, per IDAPA 58.01.05.006 through .012 (40 CFR 262 through 270).
13 Contaminated process equipment and components will be managed as hazardous/mixed waste
14 debris. This will entail decontamination of the waste until the standard for attaining a "clean
15 debris surface" is achieved, as verified by visual inspection of the contaminated surface. Clean
16 debris surface means that the surface, when viewed without magnification, shall be free of visible
17 contaminated soil and hazardous waste except for residual staining from soil and waste,
18 consisting of light shadows, slight streaks, or minor discoloration. Soil and waste in cracks,
19 crevices, and pits may be present, provided that such staining and waste and soil in cracks,
20 crevices, and pits shall be limited to no more than 5% of surface area. Equipment, components,
21 and other debris, as well as collected soils, not meeting the LDR treatment standards and the
22 ICDF Waste Acceptance Criteria will be dispositioned off-site at a facility subject to EPA's off-
23 site acceptability determination.

24 5. Video documentation of the final conditions in WMF-1617 and WMF-1619 will be recorded and
25 compared to the video documentation of the initial conditions in WMF-1617 and WMF-1619 to
26 verify that the condition following HWMA/RCRA waste processing is consistent with the
27 physical state of the facility as turned over from the previous CERCLA remediation activities.
28 The video documentation will be provided to the DEQ with the closure certification.

1 **I-1b. Partial Closure Activities [IDAPA 58.01.05.008; 40 CFR 264.112(a)(1)]**

2 As units complete their mission, a notification of closure (partial or otherwise) will be submitted
3 to the DEQ with the proposed date for the start of closure and a proposed schedule for completing the
4 closure of that unit.

5 **I-1c. Maximum Waste Inventory [IDAPA 58.01.05.008; 40 CFR 264.112(b)(3)]**

6 Attachment 1 includes the Part A hazardous waste permit application for WMF-698, WMF-1617
7 and WMF-1619 units. The Part A permit application indicates the maximum potential waste inventory
8 for each unit. In addition, the operating record for each unit will identify the occurrence of waste spills, if
9 any, over the operating life, and the measures taken to mitigate the spill.

10 **I-1d. Inventory Removal and Disposal or Decontamination of Equipment, Structures, and Soils**
11 **(IDAPA 58.01.05.008; 40 CFR 264.111, 264.112, and 264.114)**

12 **I-1d(1) Closure of Containers (IDAPA 58.01.05.008; 40 CFR 264.178)**

13 Prior to closure and decontamination activities, all hazardous/mixed waste managed in containers
14 stored in the facility will be removed, transported to, and managed in an on-Site or off-Site TSD unit.
15 The operating records for the storage areas (WMF-698, Rooms 101 - 106 in WMF-1617, Rooms 101 –
16 106 in WMF-1619, and the outside storage areas) will be reviewed to determine if there have been any
17 spills/releases of mixed waste in the secondary containment or the storage areas. The storage areas will
18 also be visually inspected for any signs of release, e.g., waste-related staining. If there is no
19 documentation or visible indication of spills/releases, clean closure of the storage areas will be complete.
20 If there is documentation or visual evidence of spills/releases, the closure performance standards in
21 Section I-1a will be used to facilitate clean closure of the container storage areas.

22 **I-1d(8) Closure of Miscellaneous Units [IDAPA 58.01.05.012, 40 CFR 270.23(a)(2)]**

23 Management of mixed wastes in miscellaneous units is described in Section D-8 of this permit
24 and encompasses the miscellaneous treatment/storage unit activities within the WMF-1617 (Retrieval
25 Area, Room 104, Service Bay, DPSs, and Drum Compactor), and WMF-1619 (Retrieval Area, Room
26 104, Service Bay, and DPSs). The treatment areas will be visually inspected for any signs of release, e.g.,

1 waste-related staining. All gross visible RCRA waste will be removed from equipment and treatment
2 areas, transported to, and managed in an on-Site or off-Site TSD unit.

3 **I-1e. Ancillary Closure Activities [IDAPA 58.01.05.008; 40 CFR 264.112(b)(5)]**

4 As the RWMC HWMA/RCRA permitted units are not being closed as a landfill subject to the
5 closure and post-closure care requirements of 40 CFR 264.310, no ancillary activities such as
6 groundwater monitoring, leachate collection, or run-on/run-off control are appropriate or planned for
7 these units. Following completion of HWMA/RCRA closure, the units will be transferred back to the
8 CERCLA program for D&D of the structures. CERCLA activities in accordance with the Waste Area
9 Group 7 Record of Decision will include construction of a cap over the SDA and associated groundwater
10 monitoring, run-on/run-off, and other controls.

11 **I-1e(1) Waste Management**

12 All stored hazardous/mixed waste will be removed from the unit being closed and will be moved
13 to a permitted treatment, storage, or disposal facility. Various debris treatment technologies are
14 anticipated to be used to decontaminate equipment and structures as described in Item 4 under Section I-
15 1a., Closure Performance Standards. Following the processing of the residual waste removed from the
16 containment pans and other equipment and structures described in Section I-1a., Closure Performance
17 Standards, Item 1a, waste generated in the process of decontaminating equipment or structures to remain
18 is defined as closure-generated waste. Closure-generated waste will be staged in the vicinity of the unit
19 being closed in a designated closure-generated waste storage area until the waste has been appropriately
20 characterized, processed, or dispositioned as appropriate for each waste. For the purposes of this closure
21 plan, vicinity is defined as the RWMC including both the AMWTP and the SDA. Waste will be
22 appropriately managed based on a hazardous waste determination. All generator requirements of IDAPA
23 58.01.05.006 (40 CFR 262) will be met except the 90-day limit stipulated in IDAPA 58.01.05.006 [40
24 CFR 262.34(a)(1), “Generator Standards: Accumulation Time”] which will not apply to closure-generated
25 waste. As part of the integration to the extent practical with CERCLA non-time critical removal actions,
26 interim time limits are considered administrative in nature rather than substantive. Closure-generated-
27 waste can be staged in these areas as long as necessary to facilitate completion of closure related activities
28 while still meeting the overall closure schedule. All hazardous waste will be removed from these staging
29 areas and dispositioned prior to the completion of closure activities. Information regarding waste
30 management during closure activities will be provided in quarterly closure reports to the DEQ and to the
31 qualified engineer certifying closure.

1 **I-1f. Schedule for Closure [IDAPA 58.01.05.008; 40 CFR 264.112(b)(6)]**

2 The Director of the DEQ will be notified in writing at least 45 days prior to the date that closure
 3 operations are planned to begin for each unit. Notification of intent to initiate closure of WMF-1617 was
 4 submitted to the DEQ on August 7, 2019 and closure was initiated on October 1, 2019.

5 **Table 1: Projected Schedule for Closure of WMF-1617**

Activity	Day Completed
Initiate closure activities	Day 0: October 1, 2019
Complete processing of waste material removed from equipment, treatment/containment pans, trays and other areas in WMF-1617	Day 280
Complete removal of gross visible RCRA waste from contaminated equipment, structures to remain in place	Day 300
Complete removal and disposition of waste material including equipment and structures to be managed as hazardous/mixed waste	Day 330
Complete transfers of equipment to be reused out of WMF-1617	Day 345
Complete closure	Day 365
Submit closure certification to the State of Idaho	60 days after completion of closure activities

1 **Table 2: Projected Schedule for Closure of WMF-1619, WMF-698, and Outside Storage Areas**

Activity	Day Completed
Notify Director of planned start of closure	45 days prior to Day 0
Initiate closure activities	Day 0
Complete waste removal	Day 100
Complete removal of gross visible RCRA waste	Day 140
Complete closure	Day 180
Submit closure certification to the State of Idaho	60 days after completion of closure activities

2 **I-1g. Extension for Closure Time [IDAPA 58.01.05.008; 40 CFR 264.113(a) and 264.113(b)]**

3 Table 1 identifies the closure schedule that will be initiated for WMF-1617 following DEQ
 4 approval of this modified closure plan. A Notice of Intent to begin closure of WMF-1617 was submitted
 5 to the DEQ on August 7, 2019, and closure was started under the approved closure plan October 1, 2019.
 6 The schedule in Table 1 reflects the time required for conducting closure activities and submitting
 7 information to the qualified engineer for certification. IDAPA 58.01.05.008 (40 CFR 264.113) requires
 8 closure to be completed within 180 days from the initiation of closure activities. An extension to this time
 9 period is being requested for the closure of WMF-1617, pursuant to IDAPA 58.01.05.008 (40 CFR
 10 264.113), to protect human health and the environment and to adequately perform closure activities.
 11 Waste removal, decontamination, and closure activities cannot be completed within these timeframes due
 12 to several factors including, but not limited to, the following:

- 1 • The need to process residual waste out of the WMF-1617 using the controls described in Section
- 2 I-1a, Item 1a, to prevent potential reactions of residual material when processed through the DPSs
- 3 and repackaged in containers;

- 4 • The need to provide radiological contamination controls to prevent the spread of contamination;

- 5 • Work related to management of radioactive mixed waste requires additional time due to the
- 6 requirements for care in work planning and execution to be protective of human health and the
- 7 environment; and

- 8 • The need for additional radiological contamination controls and additional work planning and
- 9 execution for transferring equipment to be reused out of WMF-1617.

10 **I-1h. Certification of Closure [IDAPA 58.01.05.012 and 58.01.05.008; 40 CFR 270.11(d) and**
11 **264.115]**

12 A certification of closure for each unit (or combination of units) will be provided in accordance
13 with IDAPA 58.01.05.008 (40 CFR 264.115) by a registered professional engineer (PE), the operating
14 contractor, and DOE-ID. The certification will state that a given unit (or combination of units) has been
15 closed in accordance with the approved closure plan. Final closure activities will be considered complete
16 upon submittal of the certification of closure to the DEQ and written acceptance issued by the DEQ.

17 **I-2. Post-Closure Plan and Notices [IDAPA 58.01.05.012; 40 CFR 270.14(b)(13) and (14)]**

18 Pursuant to IDAPA 58.01.05.009 [40 CFR 265.110(d)] the HWMA/RCRA post-closure
19 requirements at 58.01.05.009 (40 CFR 264.116 through 40 CFR 264.120) are not applicable as the
20 Regional Administrator in conjunction with the other signees of the FFA/CO have determined that it is
21 not necessary to apply closure requirements because alternative requirements implemented under the
22 FFA/CO will protect human health and the environment and will satisfy closure performance standards
23 for the soils after this closure plan has been implemented. These units will not be closed as a land
24 disposal facility; therefore, a "Notice in Deed" and survey plat are not required.

1 **I-9. Use of State Required Financial Mechanisms and State Assumption of Responsibility**
2 **[IDAPA 58.01.05.012 and 58.01.05.008; 40 CFR 270.14(b)(18), 264.149, and 264.150]**

3 The INL is owned by the U.S. Department of Energy; therefore, the facility is exempt from
4 providing a closure cost estimate, financial assurance mechanism, meeting liability requirements, or
5 compliance with state mechanisms under IDAPA 58.01.05.012 and 40 CFR 270.14(b)(18) and 264.149
6 and 264.150.

RCRA PART B PERMIT
FOR THE IDAHO NATIONAL LABORATORY

BOOK 3A
Volume 18 – Radioactive Waste Management Complex

ATTACHMENT 9

SUBSURFACE DISPOSAL AREA
WMF-698
WMF-1617
WMF-1619

Permit Revision Log

Revision Date: December 20, 2019

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
 BOOK 3 RWMC**

SUBMITTED	APPROVED	PMR CLASS	SUMMARY OF CHANGES
<p>August 22, 2012</p> <p>NOD Response and Revised PMR transmitted to DEQ on October 11, 2012</p>	<p>DEQ issued NOD on September 19, 2012</p> <p>DEQ approval letter dated October 18, 2012</p>	<p align="center">2</p>	<p>The information contained in this PMR is being submitted as a stand alone Book 3 to the Volume 18 Permit to allow for less confusion regarding the units/facility location, descriptions, etc. The PMR addresses the following modifications:</p> <ul style="list-style-type: none"> - Allow for the addition of container storage (S01) in WMF-698 - Allow for the addition of container storage (S01), and miscellaneous treatment (X99 and X02) in WMF-1617 - Allow for the addition of trailer storage - container storage (S01) units in three locations (near WMF-1617, ARP VII, and ARP VIII) to allow for storage of processed drums prior to being returned to the AMWTP - Revise the Part A Permit Application to incorporate the container storage/treatment units located at WMF-698 and WMF-1617 and the trailer container storage units and incorporate updated EPA forms. - Other administrative, informational, and editorial changes, changes as necessary to support the addition of these units to the Volume 18 Permit
<p>March 26, 2013</p> <p>NOD Response and Revised PMR transmitted to DEQ on July 11, 2013</p>	<p>DEQ issued NOD on May 23, 2013</p> <p>DEQ approval letter dated August 7, 2013</p>	<p align="center">1*</p>	<p>The information in this PMR provides for the following:</p> <ul style="list-style-type: none"> • to provide additional information regarding the processing of containers of sodium contaminated waste/debris in the FDP cell using deactivation (immersion/misting) treatment (T04); • to allow for the distillation treatment (T04) of sodium contaminated waste within CPP-666 Room SB-8; • to allow for macroencapsulation treatment (T04) of hazardous/mixed waste debris and radioactive lead solids waste types at the RMWSF; • to update the Part A Permit Application to include these treatments;

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
 BOOK 3 RWMC**

SUBMITTED	APPROVED	PMR CLASS	SUMMARY OF CHANGES
(Continued from previous page)			<ul style="list-style-type: none"> and to provide other administrative, informational, and editorial changes, changes as necessary.
November 27, 2013	December 10, 2013	1*	<p>The information contained in this PMR provides for the following:</p> <ul style="list-style-type: none"> Revision to Book 1 – INTEC Part A Permit Application, to add hazardous waste codes for the CPP-659/ CPP-1659 facility. Hazardous waste codes D027, D030, D033, D037, D042, D043, and F004 were added to the container storage and treatment units within CPP-659/ CPP-1659 (Rooms 218, 306, 308, 418, 428, and CPP-1659) to allow for the processing of RH TRU waste so that it may be subsequently shipped off-site. (NOTE: These additional waste codes were not added to any of the waste pile storage unit areas located in the CPP-659/ CPP-1659 facility.)
November 18, 2013	January 22, 2014	2	<p>The information contained in this PMR provides for the following changes at the SRP (Book 3):</p> <ul style="list-style-type: none"> Changes to the inspection schedule frequency and content Addition of Module VII to the Permit for Miscellaneous Treatment Units at the SRP Changes to container storage capacities Increase in the treatment capacity of the DPS Addition of text describing upgrades made to units Other administrative, informational, and editorial changes

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
 BOOK 3 RWMC**

SUBMITTED	APPROVED	PMR CLASS	SUMMARY OF CHANGES
May 15, 2014	July 21, 2014	2	<p>The information contained in this PMR provided for the following changes at the INTEC (Books 1 and 2):</p> <ul style="list-style-type: none"> - Incorporate changes made during the installation of the Sodium Distillation System (SDS) in CPP-666 Room SB-8. These changes reflect the as-built system as described in the PE certification of the SDS, and include <ul style="list-style-type: none"> - Reduction of the secondary containment capacity - Removal of load cell under the transfer vessel - Reduction of system operating pressure during sodium transfer - Reduction of the operating range temperature for the thermal fluid - Increase of upper operating range temperature of the system condenser - Increase of design temperature for the SDS vessels - Change the specification to use “nitrogen” and “argon” to the use of an “inert gas” - Provide as-built drawings and updated inspection forms - Update the Emergency Action Manager (EAM) information - Other administrative/informational/typographical changes as necessary.
June 5, 2014	August 4, 2014	2	<p>The information contained in this PMR for the Materials and Fuels Complex (MFC) was submitted as a stand alone Book 4 to the Volume 18 Permit to allow for less confusion regarding the unit/facility location, description, etc. The PMR addressed the following modification:</p> <ul style="list-style-type: none"> - Secondary Sodium System (SSS) Components located at building MFC-766 – Tank Storage (S02) to allow for completion of closure activities as detailed in the approved closure plan.

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
 BOOK 3 RWMC**

SUBMITTED	APPROVED	PMR CLASS	SUMMARY OF CHANGES
February 25, 2015	March 5, 2015	1*	This PMR was for revisions to Book 4 of 4. The PMR allows for the treatment of newly generated sodium waste from the decommissioning of MFC-767 in the SSS components under closure.
February 19, 2015	March 10, 2015	1*	The information contained in this PMR provided for <ul style="list-style-type: none"> – Expansion of treatment (sizing) capabilities outside the ARS in the FDP Cell in CPP-666 – Addition of sodium deactivation treatment (T04) in CPP-659 Room 308 – Change to the storage configuration/aisle space requirements at the Radioactive Mixed Waste Storage Facility (CPP-1617) – Elimination of aisle space requirements in CPP-659 Rooms 308 and 309 – Other administrative changes to update information and correct typographical errors.
April 15, 2015	May 19, 2015	1*	The information contained in this PMR provided for the incorporating design changes to the CPP-666 Sodium Distillation System (SDS) unit. Those changes include the following: <ul style="list-style-type: none"> – Revise SDS operations to remove the current condenser, collection, and transfer vessels due to problems identified with the existing system during treatment operations – Installation of a new shielded removable condenser/collection vessel to improve treatment operations and reduce ALARA concerns – Other administrative changes completed to update information and correction of typographical errors.

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
BOOK 3 RWMC**

SUBMITTED	APPROVED	PMR CLASS	SUMMARY OF CHANGES
June 4, 2015	July 2, 2015	1*	<p>The information contained in this PMR provided for the following changes at the RWMC SDA (Book 3 of 4):</p> <ul style="list-style-type: none"> – Addition of drummed sludge in waste boxes to the treatment and storage descriptions to allow for the repackaging of these wastes – Increase of container Outside Storage Areas/capacity near WMF-1617 to facilitate storage pending shipment of non-liquid repackages waste and secondary waste – Change of storage configuration at WMF-698 – Administrative changes to update information and correct typographical error as necessary. <p>Additionally, this PMR provided for the following revised/updated information for the INTEC (Books 1 & 2 of 4):</p> <ul style="list-style-type: none"> – Addition of the PE-stamped engineering drawing of the CPP-666 ARS units 1 and 2 to Book 2, Appendix 2, Facility Drawings. Addition of photographs for CPP-666 ARS units 1 and 2 to Book 2, Appendix 1, Facility Photographs – Administrative changes to update information and correct typographical error as necessary.
September 10, 2015	N/A	Class 1 PMN	<p>The information contained in this PMN provided for the following changes at the RWMC SDA (Book 3 of 4):</p> <ul style="list-style-type: none"> – Allow for the use of three additional secondary containment pans in WMF-698 and WMF-1617 – Administrative and informational changes, as necessary.
December 22, 2015, & February 4, 2016	Final DEQ approval: February 12, 2016	1*	<p>The information contained in this PMR provided for the following changes at the RWMC SDA (Books 3A & 3B of 4):</p> <ul style="list-style-type: none"> - WMF-1617 – Use of Soil Bags for storage of secondary waste - Addition of EPA Hazardous Waste codes for necessary for treatment of additional waste

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
BOOK 3 RWMC**

<p>December 22, 2015, & February 4, 2016 (continued)</p>	<p>Final DEQ approval: February 12, 2016</p>	<p>1*</p>	<p>stream (sludge drum processing)</p> <ul style="list-style-type: none"> - WMF-1619 – Addition of Rooms 101/102/103 Service Bay Area, Room 104 Equipment Airlock, Room 105 Drum Packaging Station (DPS) Room, and Room 106 Utility Area of WMF-1619 facility as container storage units (S01), a miscellaneous storage unit (X99) in the Retrieval Area (RA), and miscellaneous treatment units (X99) in the RA, DPS, and Room 103 Service Bay. - Addition of two container storage units (S01) as Trailer Storage Areas near WMF-1619 and WMF-1621 - Administrative and informational changes as necessary <p>Additionally, this PMR provided for the following revised/updated information for the INTEC (Books 1 & 2 of 4):</p> <ul style="list-style-type: none"> - Allow for an additional commercial macroencapsulation treatment (T04) type (Macrobag system) at the RMWSF (CPP-1617 area) and to allow for macroencapsulation treatment (T04) at CPP-659 Room 428 - Allow for absorbent addition treatment (T04) in CPP-659 Room 418 - Addition of EPA HWNs to CPP-659 Rooms 306, 309, 417, and 428 and update of the Part A Permit to provide consistency/clarification - Update of the description/discussion of sodium treatment performed within the ARS, and allow for use of each 3 types of ARS units at both CPP-659 and CPP-666 FDP cell and provide updated drawings of the ARS units - Additional administrative and informational changes as necessary
<p>February 4, 2016</p>	<p>March 4, 2016</p>	<p>1*</p>	<p>The information contained in this PMR allowed for the termination of the MFC Permit (Book 4) on March 1, 2016. Book 4 was removed from the permit.</p>
<p>April 20, 2016</p>	<p>April 28, 2016</p>	<p>1*</p>	<p>Change in designated contract operator from CH2M-WG Idaho, LLC to Fluor Idaho, LLC with an effective Revision Date of June 1, 2016.</p>

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
 BOOK 3 RWMC**

SUBMITTED	APPROVED	PMR CLASS	SUMMARY OF CHANGES
July 21, 2016	August 19, 2016	1*	<p>The information contained in this PMR primarily provided for the following changes at the RWMC as follows:</p> <ul style="list-style-type: none"> - addition of EPA Hazardous Waste codes necessary for treatment of additional waste streams at RWMC - additional Outside Storage Area capacity near WMF-1619 (additional storage capacity for another trailer storage unit and 1 cargo container storage unit) - Change in materials of construction for decontent at WMF-1619 to allow for operational flexibility - Additional administrative and informational changes were completed as necessary for both the INTEC and RWMC portions of the Permit.
October 25, 2016	NOD issued by DEQ on November 23, 2016	1*	<p>The information contained in this PMR primarily provided for the following changes at the INTEC as follows:</p> <ul style="list-style-type: none"> - addition of EPA Hazardous Waste codes necessary for treatment of additional waste streams - Change in design/materials of construction for Argon Repackaging Stations to allow for operational flexibility - Additional administrative and informational changes were completed as necessary for the INTEC portions of the Permit.
January 25, 2017	March 29, 2017	2	<p>The information in this PMR addressed the issues identified by the DEQ NOD in the Class 1* PMR and provided for the following changes at the INTEC:</p> <ul style="list-style-type: none"> • Addition of Hazardous Waste Numbers (HWNs) to allow the treatment and storage of additional waste streams, and to provide consistency between all units

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
 BOOK 3 RWMC**

SUBMITTED	APPROVED	PMR CLASS	SUMMARY OF CHANGES
January 25, 2017 (continued)	March 29, 2017	2	<ul style="list-style-type: none"> • Addition of Hazardous Waste Numbers (HWNs) to allow the storage of additional legacy waste streams in waste piles, and to provide consistency between all units • The design drawings are being updated to allow options to customize the ARS to the waste streams to be processed • Addition of ARS oxygen sensor parameters to the inspection schedule and inspection forms • Information is being provided regarding container storage (S01) and the macroencapsulation treatment processing (T04) of hazardous/mixed waste debris and lead contaminated solids waste at the CPP-2725 tent which will be used as an annex facility of the RMWSF. • Other Administrative changes. Various changes were made to the permit to update information and correct typographical errors.
May 18, 2017	June 8, 2017	1*	<p>The information contained in this PMR primarily provided for the following changes at the RWMC as follows:</p> <ul style="list-style-type: none"> - Addition of Hazardous Waste Numbers (HWNs) to allow treatment and storage of additional waste streams at all HWMA/RCRA storage and treatment units. - Increase in the container storage capacity (S01) for WMF-1619 to allow for the storage of any oversized boxes that may be received from the AMWTP. - Modify Permit Conditions V.F.3. and VI.G.3. to remove the requirement for submittal of the Professional Engineer (PE) certification to the Director and replace it with keeping the PE certification in the Operating Record.

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
BOOK 3 RWMC**

SUBMITTED	APPROVED	PMR CLASS	SUMMARY OF CHANGES
May 18, 2017 (continued)	June 8, 2017	1*	<p>- Other Changes include:</p> <ul style="list-style-type: none"> • clarifying the emergency lighting language for WMF-698 • clarifying that at the WMF-621 outside storage areas, containers that require segregation due to radiological assay results may be stored on pallets pending further analyses • clarifying reporting requirements for the semiannual non-compliance report • updating Section C – Waste Characteristics to reference applicable acceptable knowledge (AK) reports which are found in the operating record on EDMS • Deleting of Book 3B, Appendices 3 and 5-13 as this AK information is no longer applicable • Other Administrative changes. Various changes were made to the permit to update information and correct typographical errors.
March 26, 2018	March 30, 2018	Class 1 PMN	<p>The information contained in this PMN provided for the following changes at the CPP-666 Fluorinel Dissolution Process (FDP) Cell at the INTEC, Book 1:</p> <ul style="list-style-type: none"> • Deletion of the specific hoist number and rating on page 40, and deletion of the specific hoist number on Exhibit D-9 on page 41 in Attachment 1, Section D <p>The new hoist was placed in service on March 22, 2018.</p>
May 21, 2018	May 17, 2018	Class 1 PMN	<p>The information contained in this PMN addressed the upgrade of level recorders (L-NC-129-1 and L-NC-123-1) for HWMA/RCRA permitted storage and treatment tanks VES-NCD-123 and VES-NCD-129 located at the INTEC (CPP-659), as follows:</p> <ul style="list-style-type: none"> • Upgrade of chart recorders L-NC-129-1 and L-NC-123-1 from pneumatic devices to digital devices

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
BOOK 3 RWMC**

SUBMITTED	APPROVED	PMR CLASS	SUMMARY OF CHANGES
May 21, 2018 (continued)	May 17, 2018	Class 1 PMN	<ul style="list-style-type: none"> • Revising mechanical flow and instrument loop drawings 133447 and 133448 to depict the new digital videographic recording devices that will be installed for use with VES-NCD-123 and VES-NCD-129 (Appendix 2, Facility Drawings) • Revising footnote (1) on Form INTEC-4043 (Attachment 4, Appendix F-2, Form INTEC-4043, page 1 of 5), delete “that the recorder contains chart paper, the chart motor is working, the chart pens contain ink, and” as this information will no longer be applicable <p>The new digital recorders were placed in service on May 17, 2018.</p>
August 16, 2018	August 23, 2018	1*	<p>This PMR updates information in the permit to incorporate the addition of two container storage areas in CPP-666, Rooms SB-4 and B-6, to support the processing of legacy wastes.</p>
September 24, 2019	December 17, 2019	Class 2 PMR/RTA	<p>The information contained in this PMR primarily provided for the following changes at the RWMC:</p> <ul style="list-style-type: none"> • To incorporate the process changes identified in the corrective actions and lessons learned from evaluation of the April 2018 event at WMF-1617 and recovery waste processing, and to move the sludge repackage process (SRP) from WMF-1617 to WMF-1619. <p>Additional Changes include:</p> <ul style="list-style-type: none"> • Incorporate changes to Permit Conditions VI.H.2. and VII.H.2., as required by DEQ • Update Attachment 1, Sections B & D, Facility and Process Description to: <ul style="list-style-type: none"> - Add an additional Outside Storage Area to the North of WMF-1619, - Update all applicable Exhibits as applicable/necessary - Provide for additional characterization and waste acceptance controls for receiving waste to be processed through SRP in WMF-1619, - Remove the WMF-1619 Retrieval Area Decontamination Tent as it was never constructed

**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR
 BOOK 3 RWMC**

SUBMITTED	APPROVED	PMR CLASS	SUMMARY OF CHANGES
September 24, 2019 (continued)	December 17, 2019	Class 2 PMR/RTA	<ul style="list-style-type: none"> • To update Attachment 2, Section C Waste Analysis Plan provide the description of the revised waste characterization and acceptance process. • To update Attachment 4, Section F-2 Inspections to add CAMs as monitoring equipment and Appendix F-2 Examples of Inspection Forms (FRM-1809). • To update Attachment 5 – Section H, Training to provide additional training for RWMC EAMs • To update Attachment 6 – Sections F-3 through F-5 Procedures to Prevent Hazards to provide additional detail regarding the prevention of ignition or reaction of ignitable or reactive wastes • To update Attachment 7 – Section G, Contingency Plan to reflect the current list of EAMs at the RWMC and to reflect additional training provided to the facility supervisors who may be called upon to respond to operational events, include fire Department preplanning information, and provide waste specific information during operational events. • Appendix I – Facility Drawings & Exhibits to add revised drawings for the WMF-1617 Vestibule • Other Administrative and editorial changes. Various changes were made to the permit to update information and correct typographical errors.
November 26, 2019	December 20, 2019	1*	The information contained in this PMR provided for the following changes to Book 3A, Attachment 8, Section I, Closure and Post Closure Requirements (specific to closure of WMF-1617 at the RWMC): <ul style="list-style-type: none"> • Propose extension of closure schedule • Rationalization of CERCLA temporary passageway and integration of closure activities with CERCLA NTCRA • Authorize/define processing of clean-up waste