

**CLASS 2 PERMIT MODIFICATION  
REQUEST WITH A REQUEST FOR  
TEMPORARY AUTHORIZATION FOR  
THE VOLUME 18 HWMA/RCRA  
STORAGE AND TREATMENT PERMIT  
FOR THE IDAHO NUCLEAR  
TECHNOLOGY AND ENGINEERING  
CENTER & RADIOACTIVE WASTE  
MANAGEMENT COMPLEX ON THE  
IDAHO NATIONAL LABORATORY**

**EPA ID No. ID4890008952**

**September 2019**

## **PERMIT MODIFICATION REQUEST**

**CLASS 2 PERMIT MODIFICATION REQUEST INCLUDING A REQUEST FOR  
TEMPORARY AUTHORIZATION FOR THE HAZARDOUS WASTE MANAGEMENT  
ACT/RESOURCE CONSERVATION AND RECOVERY ACT STORAGE AND  
TREATMENT PERMIT FOR THE IDAHO NUCLEAR TECHNOLOGY AND  
ENGINEERING CENTER AND THE RADIOACTIVE WASTE MANAGEMENT  
COMPLEX (VOLUME 18)  
EPA ID No. ID4890008952**

This document contains a Class 2 Permit Modification Request (PMR) including a Request for Temporary Authorization (RTA) for the Volume 18 Hazardous Waste Management Act (HWMA)/Resource Conservation and Recovery Act (RCRA) Storage and Treatment Partial Permit for the Idaho Nuclear Technology and Engineering Center (INTEC) and the Radioactive Waste Management Complex (RWMC) on the Idaho National Laboratory (INL), Environmental Protection Agency (EPA) Identification Number ID4890008952.

The Department of Energy Idaho Operations Office (DOE-ID) and Fluor Idaho, LLC (Fluor Idaho), collectively referred to as the Permittee, are submitting this PMR for the RWMC 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 project (SRP) from WMF-1617 to WMF-1619. The Permittee is submitting this PMR as a Class 2 modification under 1) IDAPA 58.01.05.012 [40 CFR 270.42(d)(2)(ii)(A)] in that it applies to changes that are necessary to enable a permittee to respond, in a timely manner, to, common variations in the types of waste managed under the facility permit; and 2) IDAPA 58.01.05.012 [40 CFR 270.42, Appendix I, F.1.b.] Modification or addition of container units resulting in up to 25% increase in the facility's container storage capacity.

This PMR also contains a Request for Temporary Authorization in accordance with IDAPA 58.01.05.012 [40 CFR 270.42(e)(2)(i)(A)] in that the RTA as described below meets the criteria of IDAPA 58.01.05.012 [40 CFR 270.42(e)(3)(ii)(C)]. This RTA is necessary to support continued RWMC operations to treat and ship existing legacy waste outside of the State of Idaho in support of the Settlement Agreement milestones. The Permittee is requesting approval of the temporary authorization by September 30, 2019 to support facility treatment schedules.

The Permittee is submitting this document in accordance with the Volume 18 HWMA/RCRA Permit, and IDAPA 58.01.05.012 [40 CFR 270.42]. The following information specifically addresses how compliance with the HWMA/RCRA requirements for submittal of this Class 2 PMR has been achieved.

**1. IDAPA 58.01.05.012 [40 CFR 270.42(b)(1)(i)-(iii)], Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit, identifies that the modification is a Class 2 modification and explains why the modification is needed:**

At approximately 2235 Mountain Daylight Time (MDT) on April 11, 2018, an incident occurred with the SRP waste in WMF-1617. This incident resulted in the over-pressurization and lid ejection from four 55-gallon drums and subsequent energetic release of radioactive material to a

work area normally accessible to facility workers. There were no workers in the facility at the time.

The WMF-1617 retrieval enclosure is a large tension membrane building erected over specified exhumation areas to limit the spread of contamination and provide protection from the weather. It is actively ventilated with high efficiency particulate air (HEPA) filtration systems.

The over-pressurization and breach of four drums occurred within Room 106 of the WMF-1617 airlock. The initiating mechanism (heat source) of the ejected lids, based on sample results, was slow oxidation of uranium metal which supported secondary chemical reactions. The secondary reactions created an over-pressurization in the drums, ejecting the lids, and dispersing a portion of the drum contents.

Uranium, a potentially oxidative metal, was found in the ejected material, the event drum contents, and the larger particles. Gas evolution tests indicated that when the event material reached a temperature of approximately 150°C, a significant volume of gas evolved very rapidly. Beryllium carbide has been identified in the event materials and can generate significant amounts of methane when heated in the presence of acid, base, or water. The resulting pressure in the closed containers was enough to dislodge the lids and eject the contents of the drums.

The SRP item description codes (IDCs) to be processed in WMF-1619 will be processed with additional controls and operational restrictions to address potential reactions as described in “Evaluation of the Safety of the Situation for the Drum Event at ARP V (WMF-1617)” (ESS-137, Revision 1). To prevent a recurrence of the over-pressurization and drum lid ejection event, potential reactions will be mitigated and controlled and allowed to go to completion prior to the material being processed in the drum packaging stations and placed in output (daughter) drums.

For wastes to be accepted for SRP processing in WMF-1619 they must have Acceptable Knowledge (AK) documents, verification of approved (permitted) EPA Hazardous Waste Numbers and verified chemical compatibility evaluations. Waste to be processed will have verified chemical compatibility evaluations in RPT-ESH-014 *Chemical Compatibility Evaluation for Wastes for the Advanced Mixed Waste Treatment Project* or separate chemical compatibility evaluations will be completed prior to accepting the wastes for processing. The characterization data for these wastes may indicate reactions are possible but unlikely to occur. This revised characterization and waste acceptance process for SRP processing is being added to Attachment 2. In addition, clarification is being added to Attachment 2 that identified pyrophoric waste is not accepted for SRP treatment.

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

- Waste material will be raked when it is emptied out of the drums on the sorting table to mix the material and expose it to air, then placed in trays.
- The waste material will be evenly distributed within the waste tray, to the extent practical, to form a uniform depth of the waste material, and will be staged for a minimum of 24 hours in the Retrieval Area.
- At the end of the 24-hour hold time, the waste will be monitored using thermal camera(s) for elevated temperatures (>4°F above ambient). If the waste temperature variation is > 4°F above ambient temperature, the waste will be reconditioned by thoroughly raking



again and holding for another 24-hour period. Once the 24-hour hold is complete, the temperature will again be monitored using a thermal camera. If the temperature variation of the waste is verified to be  $< 4^{\circ}\text{F}$  above ambient temperature, the waste may be processed through the drum packaging stations (DPSs). If the temperature variation is  $> 4^{\circ}\text{F}$  then the reconditioning rake and hold process will be repeated until the temperature after a 24-hour hold is not  $> 4^{\circ}\text{F}$  above ambient.

- The waste will remain staged for a minimum of 24 hours to allow for any reaction to complete so that the reaction occurs in the Retrieval Area instead of the DPSs or in a newly packaged drum.
- By removing the significant heat source prior to packaging of the waste in a drum, the methane generation does not occur rapidly enough to generate sufficient gas/pressure to remove the drum lid.
- Pre-incident planning for areas where 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.
- Additional training is provided to all Advanced Mixed Waste Treatment Project (AMWTP) Emergency Action Managers (EAMs) regarding the RWMC ARP operations.

Additionally, this permit modification includes revisions to the Permit and its Attachments as follows:

- Update the Permit signature page so that any challenges of any permit condition that concern requirements are appealed to the Board of Environmental Quality.
- Update the Permit Module III to reflect SRP Operations at WMF-1619 and for the addition of an Outside Storage Area (OSA) north of WMF-1619. Update Permit Modules VI and VII to reflect SRP operations at WMF-1619.
- Update Attachment 1 - Part A Permit Application to reflect SRP operations at WMF-1619.
- Update Attachment 1 – Sections B & D Facility and Process Description to reflect the addition of SRP operations at WMF-1619; to reflect removal of the WMF-1619 Retrieval Area Decontamination Tent from the text and exhibits, as appropriate, as it was never built; to create a new outside storage area (OSA) north of WMF-1619 to support facility operations.
- Update Attachment 2 – Section C Waste Analysis Plan to provide the description of the revised waste characterization and waste acceptance process for the SRP.
- Update Attachment 4 – Section F-2 Inspections to add Continuous Air Monitory (CAMs) as monitoring equipment and Appendix F-2 Examples of Inspection Forms, FRM-1809 for SRP operations.
- Update Attachment 5 – Section H Training to provide for additional training to RWMC EAMs.
- 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.

- Update Attachment 7 – Section G Contingency Plan to reflect additional training provided to the facility supervisors and EAMs who may be called upon to respond to operational events, include fire Department preplanning information, and provide waste specific information during operational events.
- Update Attachment 9 – Revision Log to provide information contained in this PMR
- Update Appendix 1 – Facility Drawings and Exhibits to provide update drawings for new vestibule added to WMF-1617.
- Other Administrative and Informational changes. Various changes were made to the permit to update information and correct typographical errors. [Class 1 PMR – 40 CFR 270.42, Appendix I, A.1 and A.2. Administrative and informational changes, and typographical changes].

### Referenced Documents:

- RPT-ESH-014, “Chemical Compatibility Evaluation for Wastes for the Advanced Mixed Waste Treatment Project,” Rev. 10, Advanced Mixed Waste Treatment Project,” September, 2019.
- ESS-137, “Evaluation of the Safety of the Situation for the Drum Event at ARP V (WMF-1617),” Rev. 1, Idaho Cleanup Project Core, March 28, 2019.
- RPT-TRUW-05, “Waste Matrix Code Reference Manual,” Rev. 45, Idaho Cleanup Project Core, July 25, 2019.
- RPT-TRUW-12, “ICP CH TRU Waste Stream Designations,” Rev. 25, Idaho Cleanup Project Core, June 2019.

The 45-day notification of Intent to Begin HWMA/RCRA Closure of WMF-1617 was transmitted to the DEQ on August 7, 2019 (CCN 323988). Modifications to the closure plan including modifications to WMF-1617 to support closure and a schedule for the closure activities will be addressed in a revised closure plan and will be submitted to the DEQ in a separate PMR.

These changes are being submitted as a Class 2 PMR/RTA to the Volume 18 HWMA/RCRA INTEC and RWMC Permit. Attachment A contains revisions for the Permit, shown in redline/strikeout fonts.

## **2. IDAPA 58.01.05.012 [40 CFR 270.42(a)(1)(i) – Provides the applicable information required by 270.13 through 270.21, 270.23, 270.62, and 270.63]:**

The following list identifies the location of information required per IDAPA 58.01.05.012 [40 CFR 270.42(a)(1)(i)].

IDAPA 58.01.05.012 (40 CFR 270.13)	Part A	See Attachment A
IDAPA 58.01.05.012 (40 CFR 270.14)	General	See Attachment A
IDAPA 58.01.05.012 (40 CFR 270.15)	Containers	See Attachment A
IDAPA 58.01.05.012 (40 CFR 270.16)	Tanks	Not Applicable
IDAPA 58.01.05.012 (40 CFR 270.17)	Surface Imp.	Not Applicable
IDAPA 58.01.05.012 (40 CFR 270.18)	Waste Piles	Not Applicable
IDAPA 58.01.05.012 (40 CFR 270.19)	Incinerators	Not Applicable
IDAPA 58.01.05.012 (40 CFR 270.20)	Land Treatment	Not Applicable

IDAPA 58.01.05.012 (40 CFR 270.21)	Landfills	Not Applicable
IDAPA 58.01.05.012 (40 CFR 270.23)	Miscellaneous Units	See Attachment A
IDAPA 58.01.05.012 (40 CFR 270.62)	Incinerators	Not Applicable
IDAPA 58.01.05.012 (40 CFR 270.63)	Land Treat. Demo	Not Applicable

### 3. IDAPA 58.01.05.012 [40 CFR 270.42(b)(2)]:

The required notification for this Class 2 PMR/RTA was mailed to all persons on the official INL Mailing List (which will be provided to the Permittee by the DEQ) within 7 calendar days of submittal to the DEQ. This official mailing list also includes the appropriate units of the State and local government, as required by IDAPA 58.01.05.013 [40 CFR 124.10(c)(1)(x)]. A copy of the notification, a copy of the official mailing list and evidence of mailing are provided in Attachment B of the PMR/RTA.

A Legal Notice has been published in the Idaho Falls Post Register, as required by IDAPA 58.01.05.012 [40 CFR 270.42(b)(2)]. The 60-day public comment period is announced through publication of the legal notice in the Idaho Falls Post Register. This comment period begins on September 21, 2019 and will end on November 19, 2019. Attachment C provides evidence of publication in the form of a notarized copy of the Legal Notice, provided by the Idaho Falls Post Register.

### 4. IDAPA 58.01.05.012 [40 CFR 270.42(b)(3)]

A copy of this PMR and supporting documents identified above have been placed in the INL Research Library Digital Repository for viewing 24 hours a day, 7 days a week at the following website:  
<http://inldigitallibrary.inl.gov>

Additionally, if unable to access the website, a hardcopy of the PMR can be reviewed at the Idaho Falls Public Library. The hardcopy is located on the main floor of the library, behind the checkout desk. The Idaho Falls Public Library is located at 457 Broadway, Idaho Falls, Idaho 83402.

### 5. IDAPA 58.01.05.012 [40 CFR 270.42(b)(4)]:

The required public meeting for this PMR will be held on October 30, 2019 in the Idaho Falls Public Library, 457 Broadway, Idaho Falls, Idaho, Conference Room #2 starting at 6:00 p.m. and ending at 8:00 p.m., or ending at 6:30 p.m. if members of the public do not attend by 6:30 p.m. This meeting will be within the 60-day public comment period after submittal. Specific information regarding this meeting was included in the notice mailed to all persons on the official mailing list and was published in the Legal Notice, in accordance with IDAPA 58.01.05.012 [40 CFR 270.42 (c)(2)].

### 6. IDAPA 58.01.05.012 [40 CFR 270.42(b)(5)]:

The required 60-day public comment period for this PMR began on September 21, 2019, the publication date of the Legal Notice in the Idaho Falls *Post Register* in accordance with IDAPA 58.01.05.012 [40 CFR 270.42(c)(5)].

**7. IDAPA 58.01.05.012 [40 CFR 270.11(d) and 270.30(k)]**

Attachment D of this PMR contains the signed certification statements required by Permit Condition I.V. {IDAPA 58.01.05.012 [40 CFR 270.11(d) and 270.30(k)]}.

Following DEQ approval of this PMR, clean copy pages for the Volume 18 Permit will be submitted to the DEQ within 45 calendar days of receipt of the approval letter. Headers, section numbering, pagination, and table of contents for each section will be updated as part of the clean copy and are not delineated in redline/strikeout information in Attachment A.

## **ATTACHMENT A**

**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 ~~Director~~[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].

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Date

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Toni Hardesty, Director  
Idaho Department of Environmental Quality

- 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: ~~August 23, 2018~~

**BOOK 2**  
**ATTACHMENT 1 APPENDICES INFORMATION**

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

**BOOK 3A WASTE STORAGE AND TREATMENT at the RWMCC SDA**

**ATTACHMENT 1** FACILITY and PROCESS DESCRIPTION, consisting of:

INL PART A PERMIT APPLICATION, of Volume 18, Book 3A, RWMCC SDA,  
Revision Date: ~~June 8, 2017~~

FACILITY DESCRIPTION, Section B - FACILITY DESCRIPTION and  
SECTION D - PROCESS DESCRIPTION, of Volume 18, Book 3A,  
RWMCC SDA, Revision Date: ~~June 8, 2017~~

**ATTACHMENT 2** WASTE ANALYSIS PLAN consisting of:

WASTE ANALYSIS PLAN, Section C, of Volume 18, Book 3A, RWMCC SDA,  
Revision Date: ~~June 8, 2017~~



**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: ~~June 8, 2017~~

**ATTACHMENT 5** PERSONNEL TRAINING, consisting of:

PERSONNEL TRAINING, Section H, of Volume 18, Book 3A, RWMC SDA, Revision 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 3A, RWMC SDA, Revision Date: ~~February 12, 2016~~

**ATTACHMENT 7** CONTINGENCY PLANS, consisting of:

RWMC CONTINGENCY PLAN, Section G, of Volume 18 Book 3A, RWMC SDA, Revision Date: ~~June 8, 2017~~

**ATTACHMENT 8** CLOSURE PLANS, consisting of:

CLOSURE AND POSTCLOSURE REQUIREMENTS, Section I, of Volume 18, Book 3A, RWMC SDA, Revision Date: February 12, 2016

**ATTACHMENT 9** PERMIT REVISION LOG, consisting of:

PERMIT REVISION LOG, of Volume 18, Book 3A, RWMC SDA, Revision Date: ~~June 8, 2017~~

**BOOK 3B** **APPENDICES INFORMATION**  
**LIST OF APPENDICES:**

**APPENDIX 1** RWMC FACILITY DRAWINGS, of Volume 18, Book 3B, RWMC SDA, Revision Date: ~~June 8, 2017~~

**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

- 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. "IDAPA" shall mean the Idaho Administrative Procedures Act, Chapter 52, Title 67, Idaho Code.~~
- ~~s.~~ s. "INL" shall mean the Idaho National Laboratory, the Facility.
- ~~t.~~ t. "Mixed Debris" shall mean debris that is both hazardous and radioactive.
- ~~u.~~ u. "Mixed Waste" shall mean waste that is both hazardous and radioactive.
- ~~v.~~ v. "Off-Site" shall mean off the "facility" as defined in Subpart i of this section.
- ~~w.~~ w. "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.

- ~~xw.~~ zw. "On-Site" shall mean on the "facility" as defined in Subpart i of this section.
- ~~yx.~~ "Owner" shall mean the United States Department of Energy (DOE).
- ~~zy.~~ "Permittee" shall mean both the DOE, as owner, and the DOE Designated Contractor.
- ~~aa.~~ 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.
- ~~bb.~~ aa. "RCRA" shall mean the Resource Conservation and Recovery Act of 1976, as amended by HSWA in 1984.
- ~~cc.~~ 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.
- ~~dd.~~ 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).
- ~~ee.~~ 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.
- ~~ff.~~ ee. "Secondary Waste" shall mean waste generated as a result of hazardous waste operations (e.g., PPE, filters, plastic sheeting, etc.).
- ~~gg.~~ ff. "Sodium Deactivation and Sodium Distillation" in this document are inclusive for sodium and sodium potassium alloy (NaK)
- ~~hh.~~ 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.

kk. 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.

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 ~~329,650~~362,229 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)	1,787 gallons
Room 104 (Equipment Airlock)	2,090 gallons
Room 105 (DPS Room)	330 gallons
Room 106 (Utility Area)	17,600 gallons
WMF-1619 <u>Debris Repackage Project (DRP)</u>	
Rooms 101/102/103 (Service Bay Area)	10,988 gallons
Room 104 (Equipment Airlock)	9,200 gallons
Room 105 (DPS Room)	330 gallons
Room 106 (Utility Area)	12,446 gallons
<u>WMF-1619 Sludge Repackage Project (SRP)</u>	
<u>Rooms 101/102/103 (Service Bay Area)</u>	<u>1,787 gallons</u>
<u>Room 104 (Equipment Airlock)</u>	<u>2,090 gallons</u>
<u>Room 105 (DPS Room)</u>	<u>330 gallons</u>
<u>Room 106 (Utility Area)</u>	<u>17,600 gallons</u>
Outside Storage Areas treated/solid waste only:	
Near WMF-1617	
3 Trailers @ 16 boxes at 90ft <sup>3</sup> /box (=10,772 gal/trailer)	32,316 gallons
4 Cargo Containers @ 9,574 gal each	38,298 gallons
16 boxes @ 90 ft <sup>3</sup>	10,772 gallons
Near WMF-698	
2 Trailers @ 16 boxes at 90ft <sup>3</sup> /box (=10,772 gal/trailer)	21,544 gallons
Near Bridge	
1 Trailer @ 16 boxes at 90ft <sup>3</sup> /box (=10,772 gal/trailer)	10,772 gallons

AREA	MAXIMUM (S01) STORAGE VOLUME
Near WMF-1619 <u>(South-East of WMF-1619)</u> 3 Trailers @ 16 boxes at 90ft <sup>3</sup> /box (=10,772 gal/trailer) 1 Cargo Container @ 9,574 gal <u>Near WMF-1619 (North of WMF-1619)</u> <u>16 boxes @ 90 ft<sup>3</sup>/box</u>	32,316 gallons 9,574 gallons  <u>10,772 gallons</u>
Near WMF-1621 <u>(Trailer Storage Area)</u> 1 Trailer @ 16 boxes at 90ft <sup>3</sup> /box (=10,772 gal/trailers)	10,772 gallons

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 (~~Decon Tent, and~~ 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 ~~the Decon Tent within the Retrieval Area~~ 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.

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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 <a href="#">DRP</a> Retrieval Area includes: Box Transfer Pan Area treatment @ 2 large boxes treated per day <del>Decon Tent</del> <a href="#">Room 103, Sorting Area</a> treatment includes 2 large boxes treated per day	2,800 gallons/day 2,800 gallons/day
WMF-1619 – <a href="#">DRP</a> Room 105 – 4 Drum Packaging Stations @ 8 drums/day total treated	440 gallons/day
WMF-1619 <a href="#">DRP</a> Absorbent Addition in the following areas: Service Bay (Room 103) @ 50 gallons/day Retrieval Area - Box Transfer Pan @ 50 gallons/day <del>Retrieval Area – Decon Tent @ 50 gallons/day</del>	50 gallons/day 50 gallons/day <del>50 gallons/day</del>
<a href="#">WMF-1619 SRP includes:</a> <a href="#">Retrieval Area Sorting Table treatment @ 50 drums/day</a> <a href="#">Room 105 – DPS @ 100 drums/day</a> <a href="#">Room 103 – Drum compactor (absorbent addition)</a>	<a href="#">2,750 gallons/day</a> <a href="#">5,500 gallons/day</a> <a href="#">10 gallons/day</a>

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
<a href="#">WMF – 1619 SRP, Room 103 Drum compactor (crushing) @100 drums/day</a>	<a href="#">5,500 gallons/day</a>



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 ~~containing pyrophoric radionuclides at the RWMC, 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.

## 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.21.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 <a href="#">DRP</a> Retrieval Area Container/Tray Staging/Storage Areas	17,730 gallons
<a href="#">WMF-1619 SRP Retrieval Area Container/Tray Staging/Storage Areas</a>	<a href="#">17,730 gallons</a>

### 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.

# United States Environmental Protection Agency RCRA SUBTITLE C SITE IDENTIFICATION FORM



## 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 HWM activity)
<input type="checkbox"/>	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
<input type="checkbox"/>	<input type="checkbox"/> Site was a TSD facility and/or generator of >1,000 kg of 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: <a href="#">CLASS 2 PMR/RTA FOR THE VOLUME 18 - RWMC</a>

## 2. Site EPA ID Number

**ID4890008952**

## 3. Site Name

**IDAHO NATIONAL LABORATORY**

## 4. Site Location Address

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

☐ Same as Location Address

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

## 6. Site Land Type

☐ Private ☐ County ☐ District ☒ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

## 7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary) <b>92411</b>	B. <b>54171</b>
C. <b>336992</b>	D.

**8. Site Contact Information**☐ Same as Location Address

First Name <b>TERESA NICOLE</b>	MI <b>L K</b>	Last Name <b>PERKINS HERNANDEZ</b>
Title <b>ACTING DIRECTOR, ENVIRONMENT &amp; SUSTAINABILITY DIVISION</b>		
Street Address <b>1955 FREMONT AVENUE</b>		
City, Town, or Village <b>IDAHO FALLS</b>		
State <b>ID</b>	Country <b>USA</b>	Zip Code <b>83415</b>
Email <b>PERKINTL@ID.DOE.GOV</b> <b>HERNANNK@ID.DOE.GOV</b>		
Phone <b>(208) 526-14838949</b>	Ext <b>NOT APPLICABLE</b>	Fax <b>(208) 526-19265678</b>

**9. Legal Owner and Operator of the Site****A. Name of Site's Legal Owner**☐ Same as Location Address


Full Name <b>US DEPARTMENT OF ENERGY IDAHO OPERATIONS OFFICE</b>	Date Became Owner (mm/dd/yyyy) <b>01/01/1952</b>
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 <b>1955 FREMONT AVENUE</b>	
City, Town, or Village <b>IDAHO FALLS</b>	
State <b>ID</b>	Country <b>USA</b>
Zip Code <b>83415</b>	
Email <del><b>PERKINTL@ID.DOE.GOV</b></del> <b>HERNANNK@ID.DOE.GOV</b>	
Phone <b>(208) 526-14838949</b>	Ext <b>NOT APPLICABLE</b>
Fax <b>(208) 526-19265678</b>	
Comments	

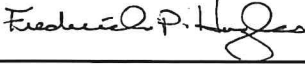
☐ Same as Location Address

Full Name <b>FLUOR IDAHO, LLC</b>	Date Became Operator (mm/dd/yyyy) <b>06/01/2016</b>
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 <b>1580 SAWTELLE STREET</b>	
City, Town, or Village <b>IDAHO FALLS</b>	
State <b>ID</b>	Country <b>USA</b>
Zip Code <b>83402</b>	
Email <b>Fred.Hughes@icp.doe.gov</b>	
Phone <b>(208) 533-0525</b>	Ext <b>NOT APPLICABLE</b>
Fax <b>(208) 533-0202</b>	
Comments	

**18. Comments** (include item number for each comment)**ITEM 10.B. See Item 7 of the Hazardous Waste Permit Information Form OMB #2050-0024**

**19. Certification.** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11).**

Signature of legal owner or authorized representative 	Date (mm/dd/yyyy) 09/20/2019
Printed Name (First, Middle Initial, Last) Robert Boston	Title Manager, Department of Energy Idaho Operations Office
Email <a href="mailto:bostonrd@id.doe.gov">bostonrd@id.doe.gov</a>	

Signature of legal operator or authorized representative 	Date (mm/dd/yyyy) 09/18/2019
Printed Name (First, Middle Initial, Last) Frederick P. Hughes	Title Program Manager, Fluor Idaho, LLC.
Email <a href="mailto:Fred.Hughes@icp.doe.gov">Fred.Hughes@icp.doe.gov</a>	

**United States Environmental Protection Agency**  
**HAZARDOUS WASTE PERMIT PART A FORM**

**1. Facility Permit Contact**

First Name <b>TERESA NICOLE</b>	MI <b>L K</b>	Last Name <b>PERKINS HERNANDEZ</b>
Title <b>ACTING DIRECTOR, ENVIRONMENT &amp; SUSTAINABILITY DIVISION</b>		
Email <b>PERKINSTL@ID.DOE.GOV HERNANNK@ID.DOE.GOV</b>		
Phone <b>(208) 526-14838949</b>	Ext <b>NOT APPLICABLE</b>	Fax <b>(208) 526-19265678</b>

**2. Facility Permit Contact Mailing Address**

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

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

<b>01/01/1949</b>
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**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 a 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.

## **Additional Information Supplement to Item 5: Other Environmental Permits**

### **HWMA/RCRA Permits (Permit Type R)**

- ~~Part A Permit Application for Interim Status TSA 1/R~~
- ~~HWMA/RCRA Storage and Treatment Permit for AMWTP~~

### **AIR PERMITS (Permit Type P)**

**INL Title V Operating Permit** - Permit Number T1-2009.0148

**PTC** (Permit Number PTC-023-00001)

- ~~INTEC New Waste Calcining Facility/Decontamination Area, CPP-659~~

**PTC** (Permit Number P.2012.0053)

- ~~INTEC CPP-606 Distillate Oil-Fired Boilers~~

**PTC** (Permit Number P.2008.0199)

- ~~INTEC Integrated Waste Treatment Unit~~

**PTC** (Permit Number P-2011.0124)

- ~~INTEC Radiological Sources~~

**PTC** (Permit Number P-2013.0023)

**PTC** (Permit Number P-2001.109)

**PTC** (Permit Number 023-00001)

- ~~AMWTF~~

### **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 Water Reuse Permit (WRP) (Permit Type E)**

- ~~Municipal and Industrial Reuse Permit, LA-000130-05 INTEC New Percolation Ponds~~

### **Ground Water Rights (Permit Type E)**

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



**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	<del>329650</del> <u>362,229</u>	G	<del>17</del> <u>22</u>	See page 2a of 2 through page 2b of 2. Supplement to Item 6. Process Codes and Design Capacities.
2	X	9	9	<del>14400</del> <u>22,660</u>	U	<del>8</del> <u>11</u>	
3	X	0	2	<del>5500</del> <u>11,000</u>	U	<del>4</del> <u>2</u>	
4	X	9	9	<del>35460</del> <u>53,190</u>	U	<del>2</del> <u>3</u>	
5							
6							
7							
8							
9							
10							
11							
12							
13							

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

7. Description of Hazardous Wastes (Enter code for Items 7(A), 7(B) and 7(C-1))																
Line Number	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.D(1))			
See Supplemental pages to Item 7. Description of Hazardous Wastes, pages 2(A-1) of 2 through 2(A-4) of 2, 2(B-1) of 2 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 Facility Topographic Map
Item 9. See Books 3A and 3B of 3, Attachment 1 - Section B, Facility Description Exhibits B-1 through B-7 and Appendix 2-Facility Drawings
Item 10. See Book 3A of 3, Part A Permit Application, pages 2(E-1) through 2(E-24) for Facility Photographs

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

LINE NUMBER	PROCESS TYPE - UNIT NAME		PROCESS DESIGN CAPACITY
1	<b>S01 - CONTAINER STORAGE includes:</b> <ul style="list-style-type: none"> <li>WMF-698 Storage Enclosure @ 1,973 drum equivalents 108,515 gallons</li> <li>WMF-1617 <ul style="list-style-type: none"> <li>Room 104 - Equipment Airlock @ 38 drums 2,090 gallons</li> <li>Room 105 - Drum Packaging Station (DPS) Area @ 6 drums 330 gallons</li> <li>Room 106 - Utility Area @ 320 drums 17,600 gallons</li> <li>Rooms 101, 102, 103 - Drum Compactor Area @ 2 standard waste boxes and 8 drum equivalents 1,787 gallons</li> </ul> </li> <li>Outside Storage Areas <ul style="list-style-type: none"> <li>Near WMF-1617 <ul style="list-style-type: none"> <li>3 Trailers @ 16 boxes at 90 cubic ft/box (10,772 gallons) 32,316 gallons</li> <li>4 Cargo Containers @ 9,574 gallons 38,298 gallons</li> <li>16 boxes @ 90 cubic ft/box 10,772 gallons</li> </ul> </li> <li>Near WMF-698 @ 2 trailers @ 10,772 gallons each 21,544 gallons</li> <li>Bridge Area @ 1 trailer @ 10,772 gallons 10,772 gallons</li> </ul> </li> <li>Near WMF-1619 (<a href="#">South-East of WMF-1619</a>) <ul style="list-style-type: none"> <li>3 trailers (10,772 gallons/trailer) 32,316 gallons</li> <li>1 Cargo Container (9,574 gallons) 9,574 gallons</li> </ul> </li> <li><a href="#">Near WMF-1619 (North of WMF-1619)</a> <ul style="list-style-type: none"> <li><a href="#">16 boxes @ 90 cubic ft/box</a> <a href="#">10,772 gallons</a></li> </ul> </li> <li>Trailer Storage Area Near WMF-1621 @ 1 trailer (10,772 gallons/trailer) 10,772 gallons</li> <li><b>WMF-1619 - DEBRIS REPACKAGE PROJECT (DRP)</b> <ul style="list-style-type: none"> <li>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</li> <li>Room 104 Equipment Airlock (2 oversized boxes @ 9,200 gallons) 9,200 gallons</li> <li>Room 105 DPS Room - 6 total drums @ 55 gallons each 330 gallons</li> <li>Room 106 - Utility Area (2 oversized boxes @ 9,200 gallons, 4 standard boxes @ 2,696 gallons, and 10 drums @ 550 gallons) 12,446 gallons</li> </ul> </li> <li><a href="#">WMF-1619 - SLUDGE REPACKAGE PROJECT (SRP)</a> <ul style="list-style-type: none"> <li><a href="#">Rooms 101/102/103 Service Bay Area</a> <a href="#">1,787 gallons</a></li> <li><a href="#">Room 104 Equipment Airlock</a> <a href="#">2,090 gallons</a></li> <li><a href="#">Room 105 DPS Room - 6 total drums @ 55 gallons/drum each</a> <a href="#">330 gallons</a></li> <li><a href="#">Room 106 - Utility Area (320 drums @ 55 gallons/drum)</a> <a href="#">17,600 gallons</a></li> </ul> </li> </ul>		
		<b>Line 1</b>	<b>329,650 362,229</b>
		<b>Total:</b>	<b>gallons</b>
2	<b>X99 - MISCELLANEOUS TREATMENT includes:</b> <ul style="list-style-type: none"> <li>WMF-1617 Retrieval Area Sorting Table treatment @ 50 drums treated/day 2,750 gallons/day</li> <li>WMF-1617, Room 105 - Drum Packaging Stations (DPS) (100 drums/day) 5,500 gallons/day</li> <li>WMF-1617, Room 103 - Drum Compactor (absorbent addition) 10 gallons/day</li> <li><b>WMF-1619 DEBRIS REPACKAGE PROJECT (DRP)</b> <ul style="list-style-type: none"> <li>WMF-1619, Retrieval Area Sorting Area treatment @ 2 large boxes treated per day 2,800 gallons/day</li> <li>WMF-1619, <del>Retrieval Area Decon Tent</del> <a href="#">Room 103</a>, Sorting Area treatment @ 2 large boxes treated per day 2,800 gallons/day</li> <li>WMF-1619, 4 Drum Packaging Stations @ 8 drums per day total 440 gallons/day</li> <li>WMF-1619 Absorbent Addition <ul style="list-style-type: none"> <li>Room 103 Service Bay 50 gallons/day</li> <li>Debris Box Containment Pan (Box Transfer Pan) within the Retrieval Area 50 gallons/day</li> <li><del>Decon Tent within the Retrieval Area</del> <b>50 gallons/day</b></li> </ul> </li> </ul> </li> </ul>		

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

LINE NUMBER	PROCESS TYPE - UNIT NAME		PROCESS DESIGN CAPACITY
2	<b>X99 - MISCELLANEOUS TREATMENT includes (continued from page 2a of 2):</b> <ul style="list-style-type: none"> <li>• <u>WMF-1619 SLUDGE REPACKAGE PROJECT (SRP)</u>  <u>WMF-1619 Retrieval Area Sorting Table treatment @ 50 drums</u>  <u>* treated/day</u>  <u>WMF-1619, Room 105 - Drum Packaging Stations (DPS) @ 100</u>  <u>- drums/day</u>  <u>* WMF-1619, Room 103 - Drum Compactor (absorbent addition)</u> </li> </ul>		<u>2,750 gallons/day</u>  <u>5,500 gallons/day</u> <u>10 gallons/day</u>
		Line 2 Total:	<del>14,450</del> <u>22,660</u> gallons/day
3	<b>X02 - MECHANICAL PROCESSING TREATMENT includes:</b> <ul style="list-style-type: none"> <li>• WMF-1617, Room 103 - Drum Compactor (crushing) @ 100 drums/day</li> <li>• <u>WMF-1619 SRP</u>  <u>* Room 103 - Drum Compactor (crushing) @ 100 drums/day</u> </li> </ul>		5,500 gallons/day  <u>5,500 gallons/day</u>
		Line 3 Total:	<del>5,500</del> <u>11,000</u> gallons/day
4	<b>X99 - MISCELLANEOUS STORAGE includes:</b> <ul style="list-style-type: none"> <li>• WMF-1617 Retrieval Area</li> <li>• WMF-1619 <ul style="list-style-type: none"> <li>* Retrieval Area - DRP</li> <li>* <u>Retrieval Area - SRP</u></li> </ul> </li> </ul>		17,730 gallons/day  17,730 gallons/day <u>17,730 gallons/day</u>
		Line 4 Total:	<del>35,460</del> <u>53,190</u> 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												(2) PROCESS DESCRIPTION (If a code is not entered in 7.D(1))
								(1) PROCESS CODES												
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	
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 10. PHOTOGRAPHS



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

**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: ~~June 8, 2017~~

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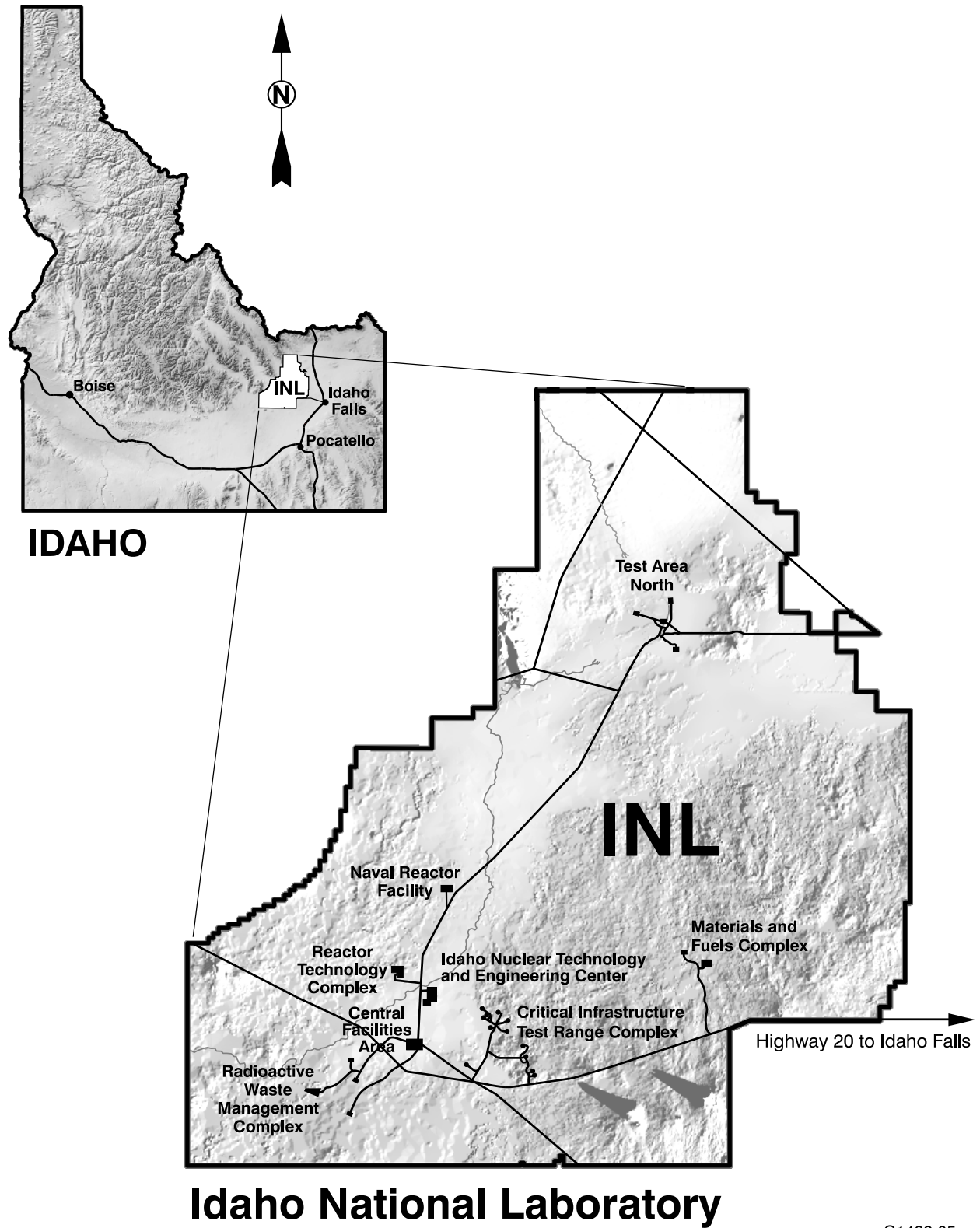
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## B. FACILITY DESCRIPTION

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

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

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



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

G1422-05



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

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

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

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

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



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

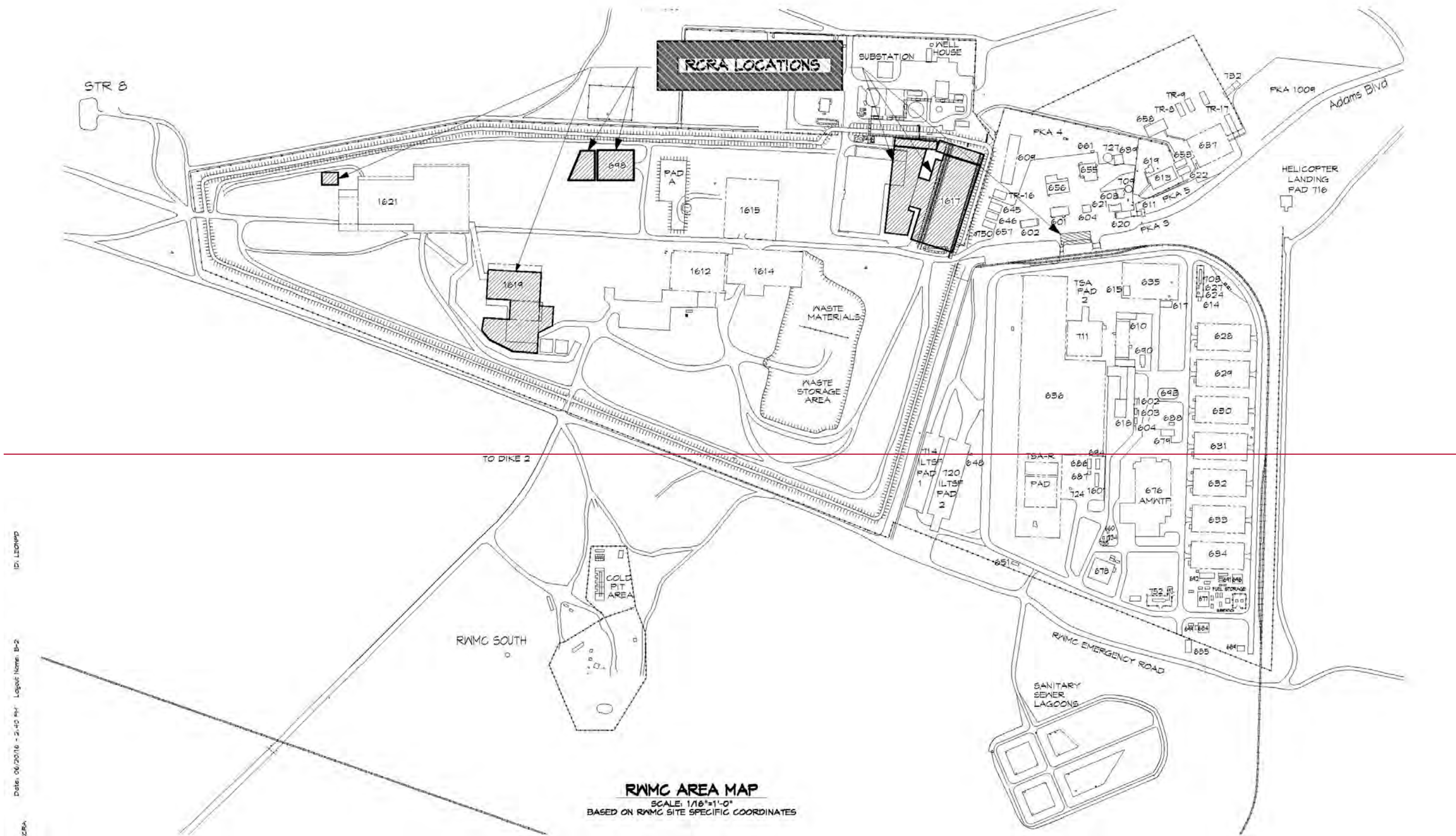
In addition, the WMF-1617 is ~~being~~ used to repackage drummed waste from AMWTP for absorption of liquids, removal/treatment of prohibited items, and visual verification to meet acceptance criteria at the WIPP, also known as the Sludge Repackage Project (SRP)., ~~and~~ The WMF-1619 is ~~being~~ used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

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

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

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

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



10/1/2016

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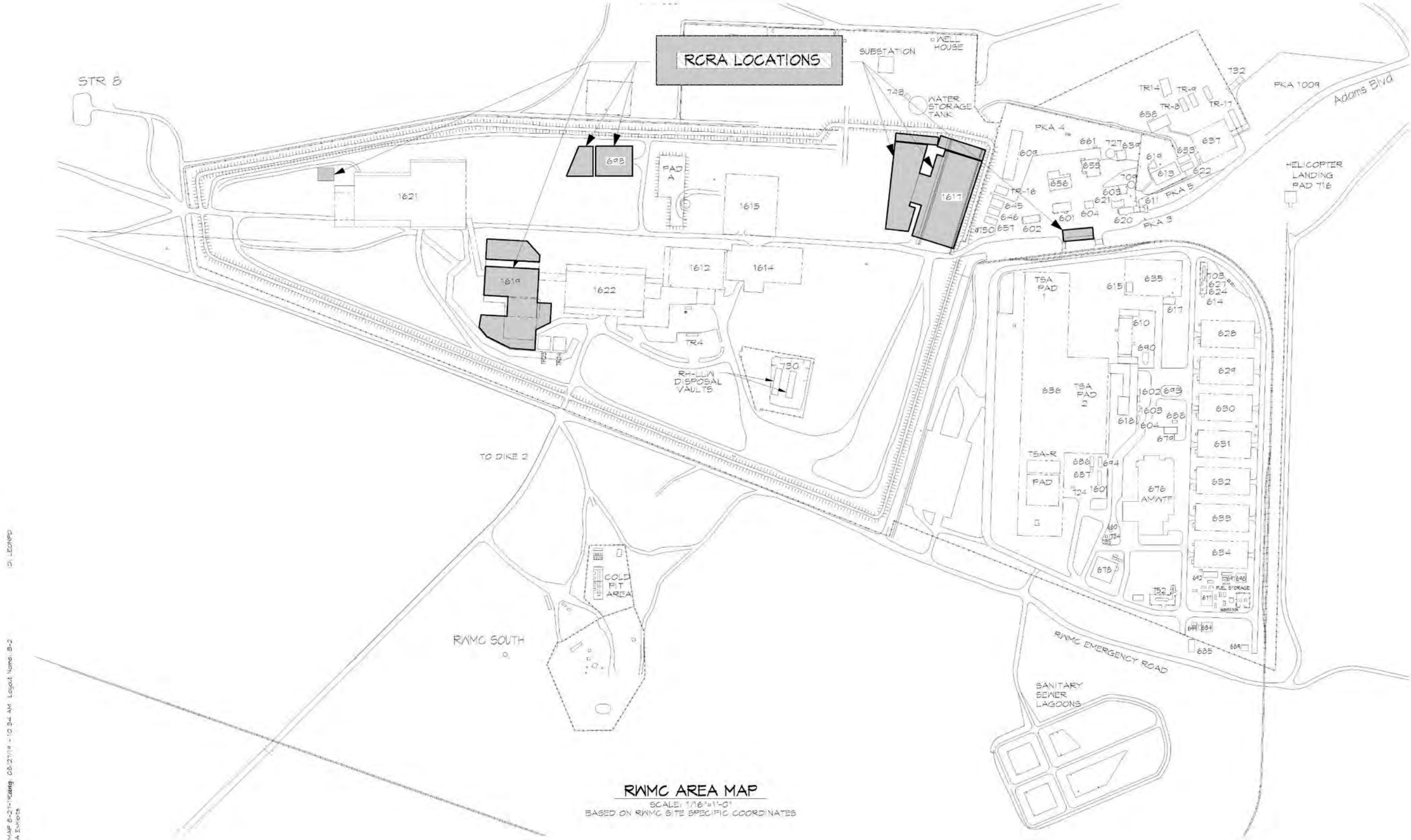
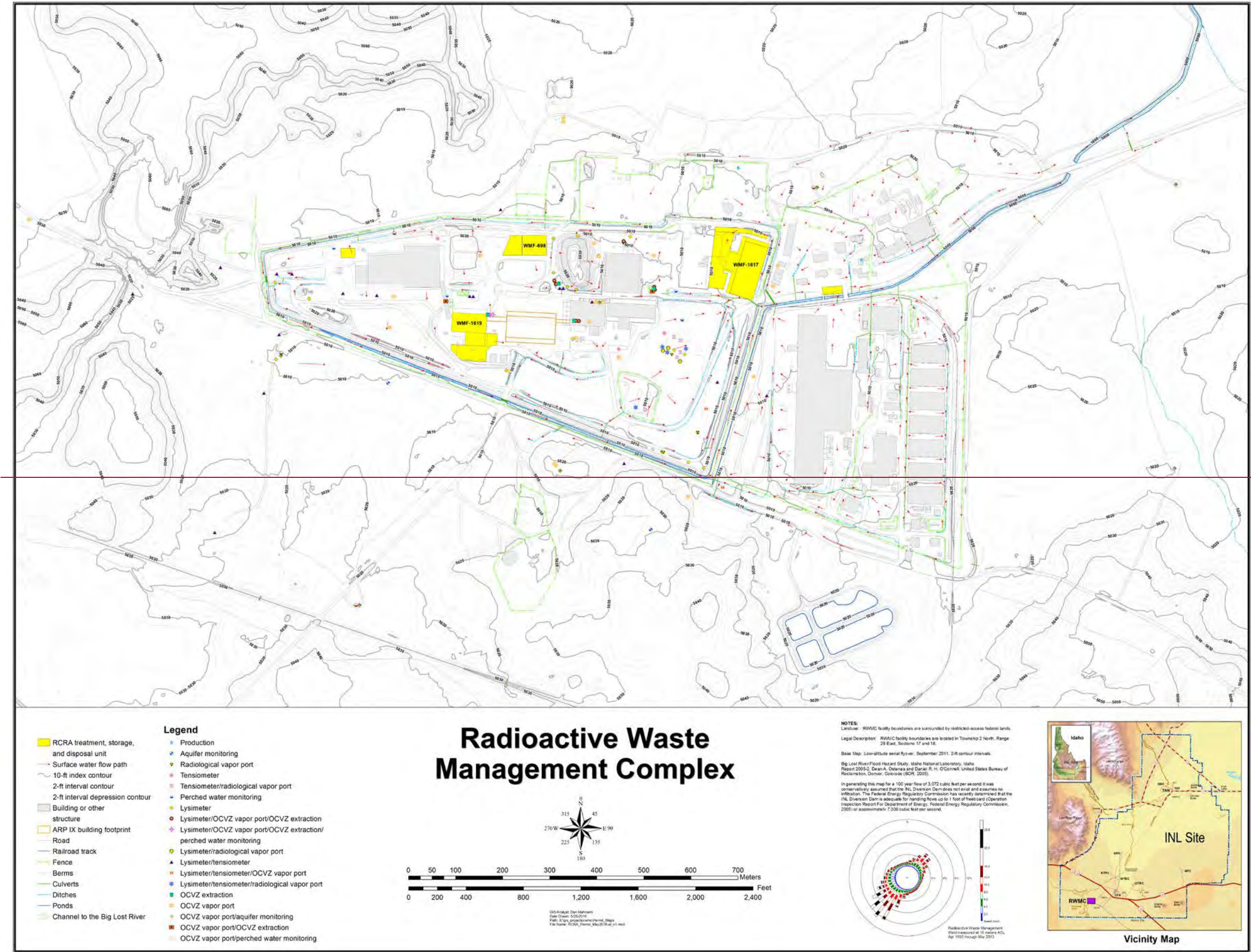


EXHIBIT B-2. RWMC Area Map







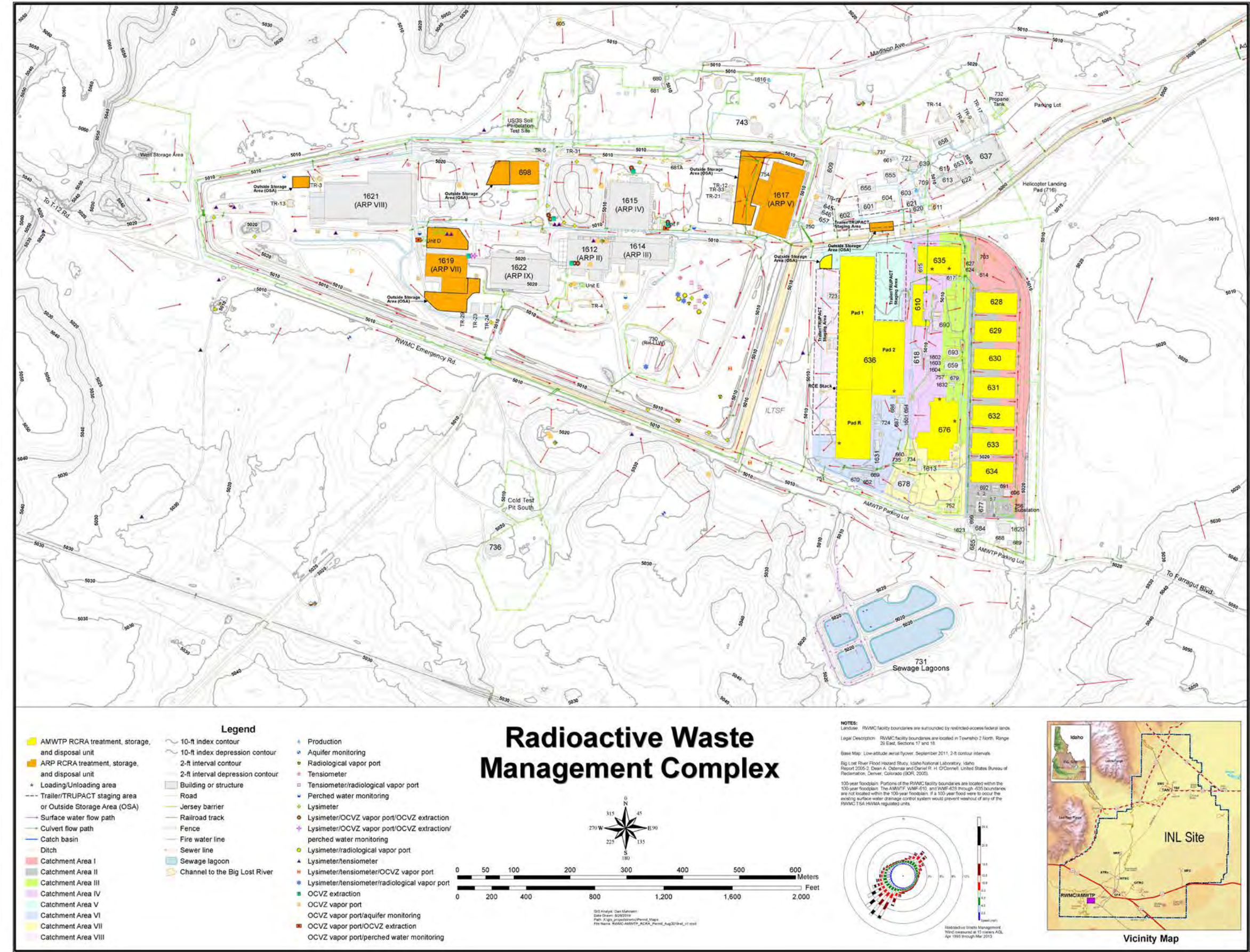
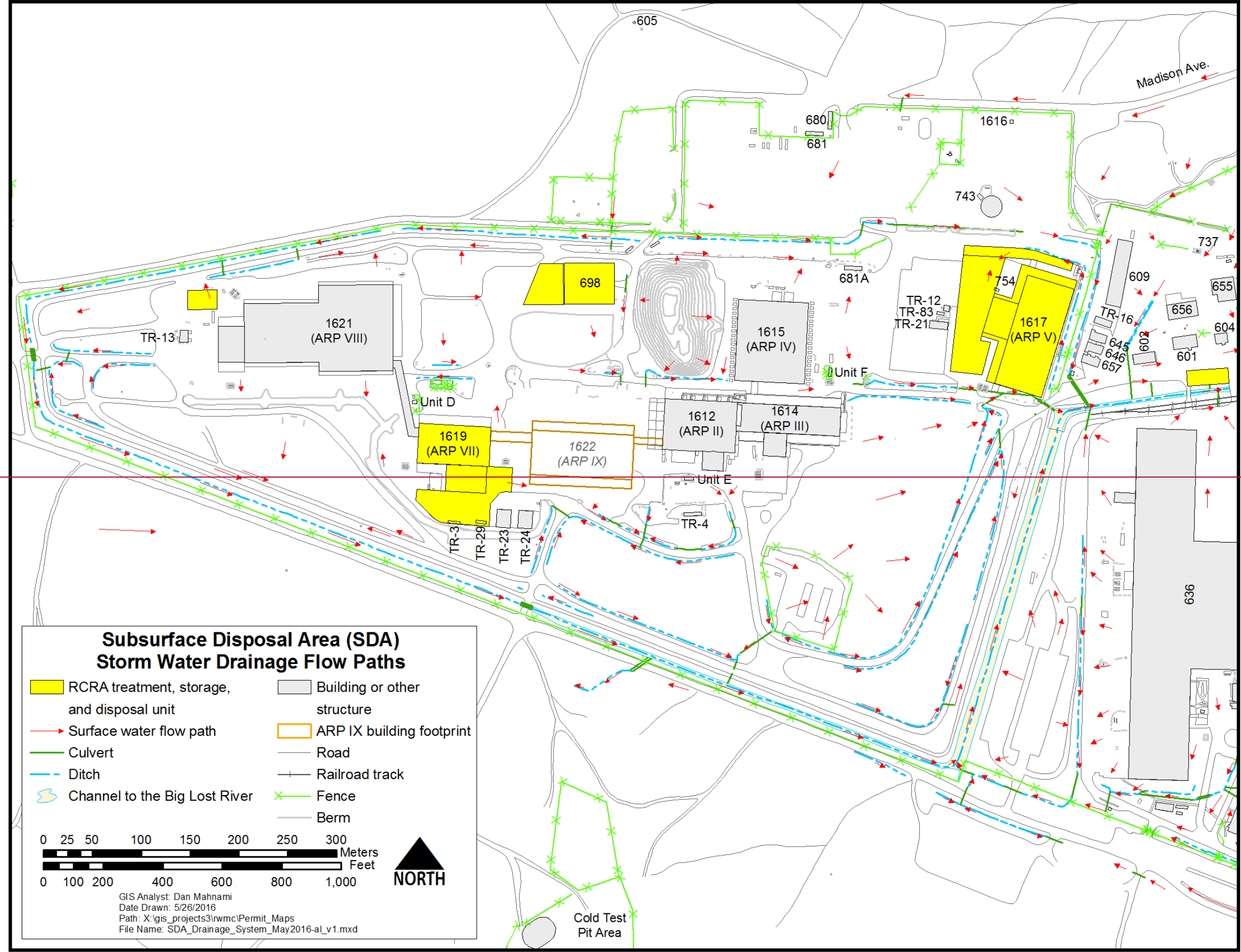


EXHIBIT B-3. Topographical map of the RWMC





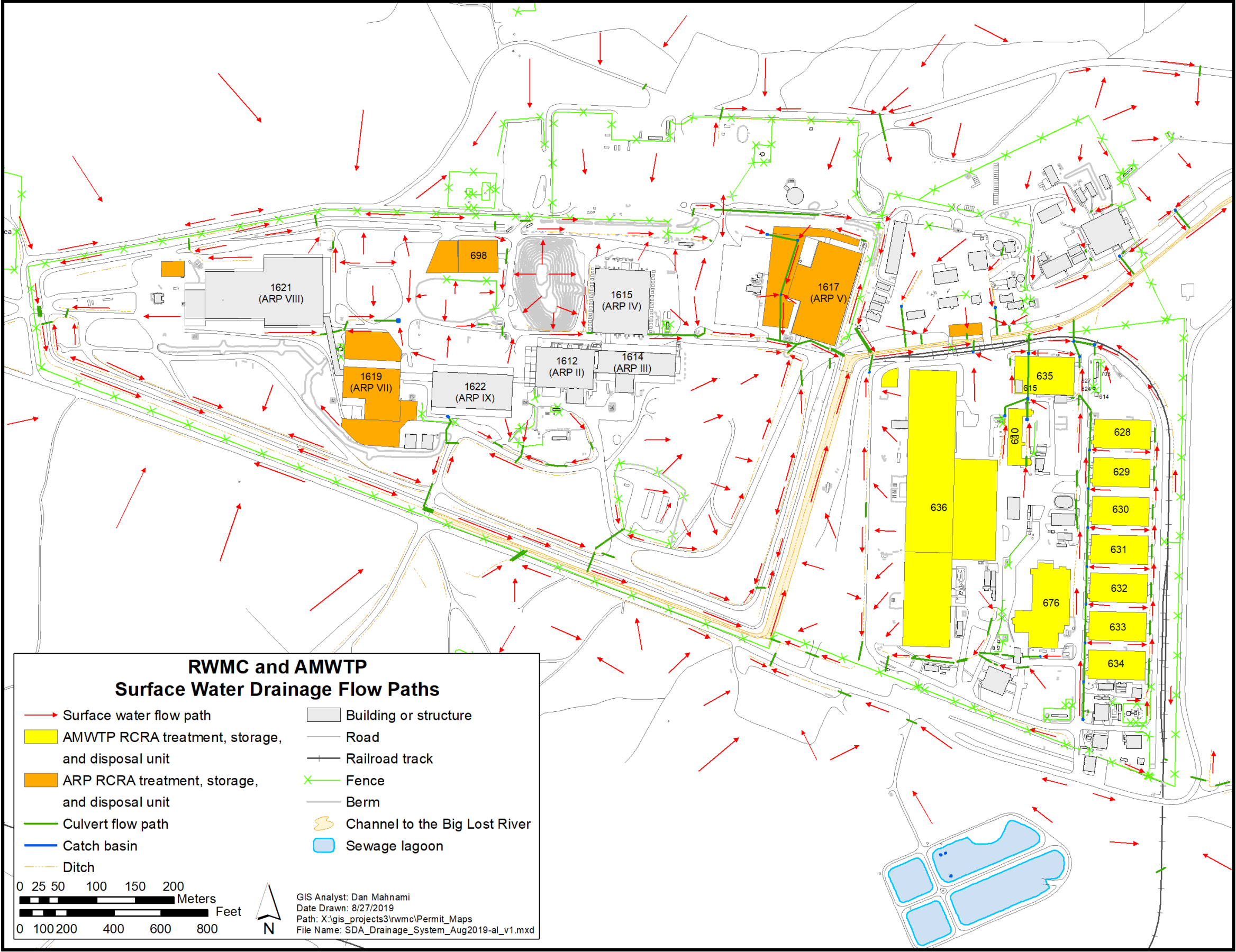


EXHIBIT B-4. RWMC Surface Water Drainage



## 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 ~~will be~~[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 ~~Accelerated Retrieval Project~~[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 I 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.

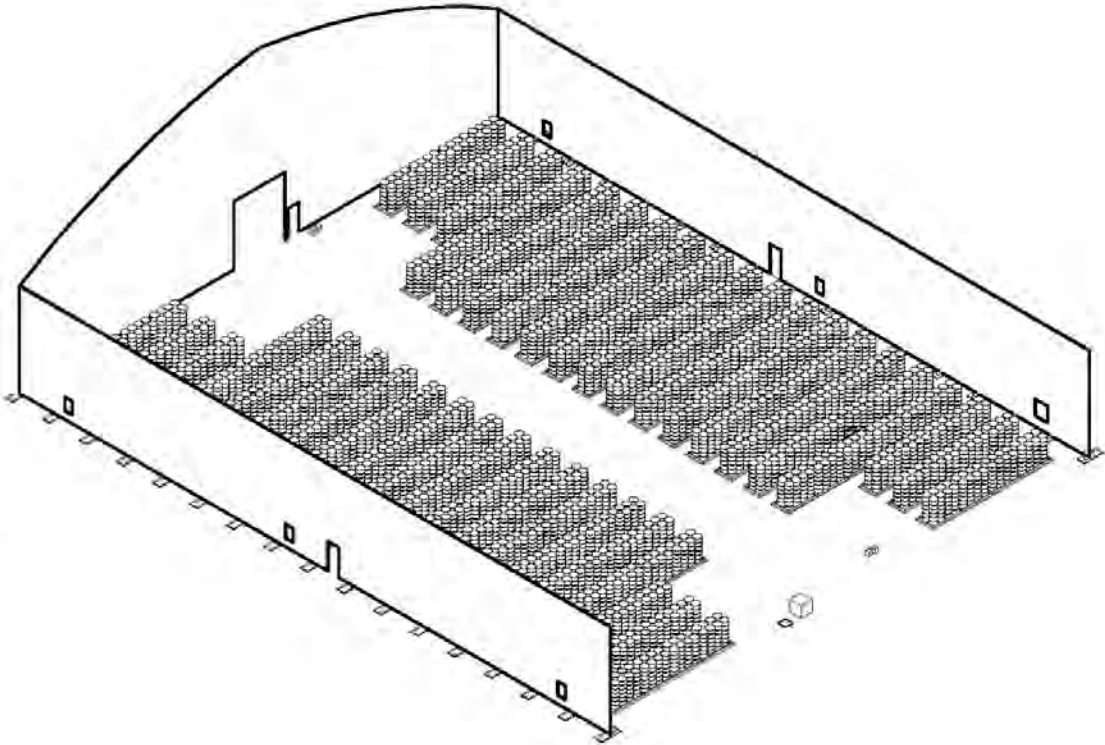
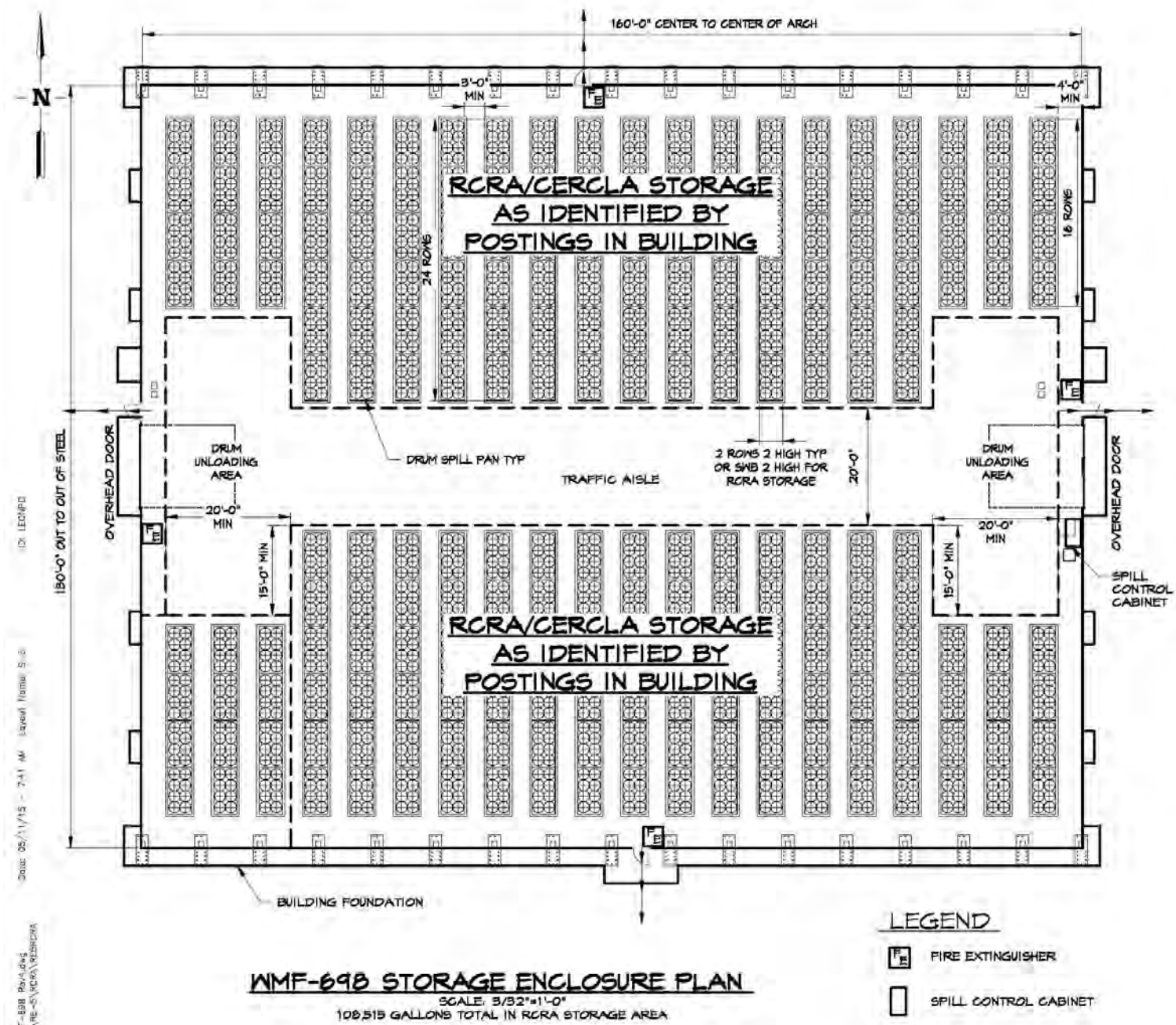


EXHIBIT B-5. Building WMF-698 Storage Enclosure Plan

## WMF-1617

Building WMF-1617 is an existing building that was established to excavate and repackage CERCLA generated waste as part of the ~~Accelerated Retrieval Project~~ [ARP](#) operations. WMF-1617 is a tension-membrane building (referred to as a Retrieval Enclosure) that 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. WMF-1617 housed the excavation, waste retrieval, waste packaging, sampling, decontamination, vehicle service, and personnel ingress/egress for the remediation of Pit 9 under CERCLA. Exhibits B-6 and B-7 provide schematics of WMF-1617. WMF-1617 has an attached air lock ([Airlock 5](#)) that is ~~may be~~ used for drum packaging and container storage, a service-bay to support [drum compacting](#), 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-1617 has steel trusses that attach to a cast-in place foundation and utilizes piles driven to bedrock to stabilize the foundation. WMF-1617 is designed to withstand seismic, snow, and wind loads in accordance with the applicable requirements. Drawings for WMF-1617 are located in Book 3B, Appendix I of this Permit.

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

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

WMF-1617 fire protection is provided through an underground fire water distribution system that was installed within the SDA. The system was designed, installed, and tested in 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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

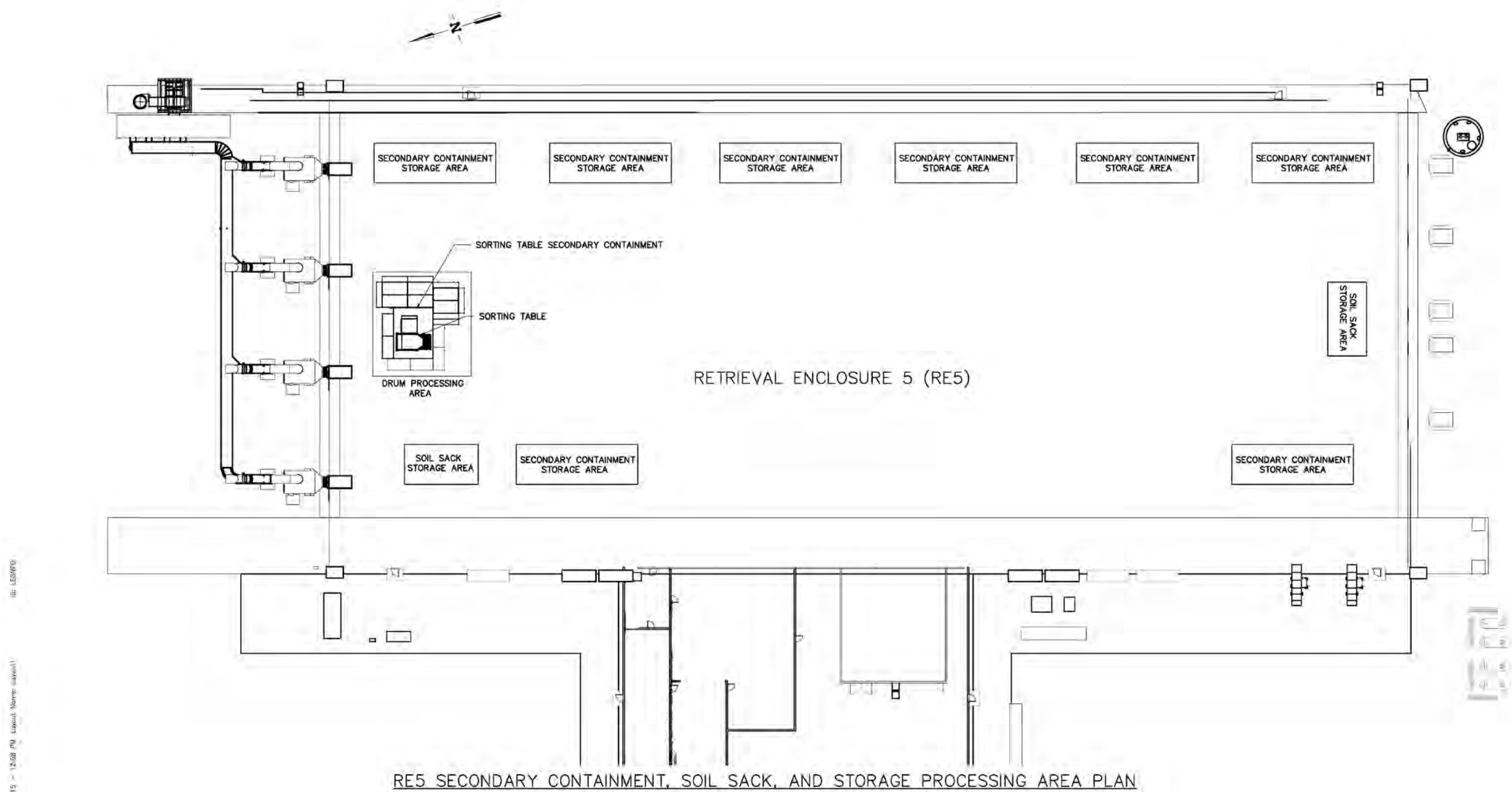
Secondary waste (e.g., drum carcasses/liners, PPE, plastic sheeting, filters, etc.) may be stored in WMF-698, WMF-1617 or WMF-1619, after packaging, and prior to transfer to AMWTP or to an off-site TSDF for disposal. Secondary waste in soil sacks may be stored in the Retrieval Areas in designated areas. 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 ~~may also occur~~ 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 ~~will be~~ 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 ~~will be~~ are reported to DEQ on a semi-annual basis.

## Decontamination of Equipment

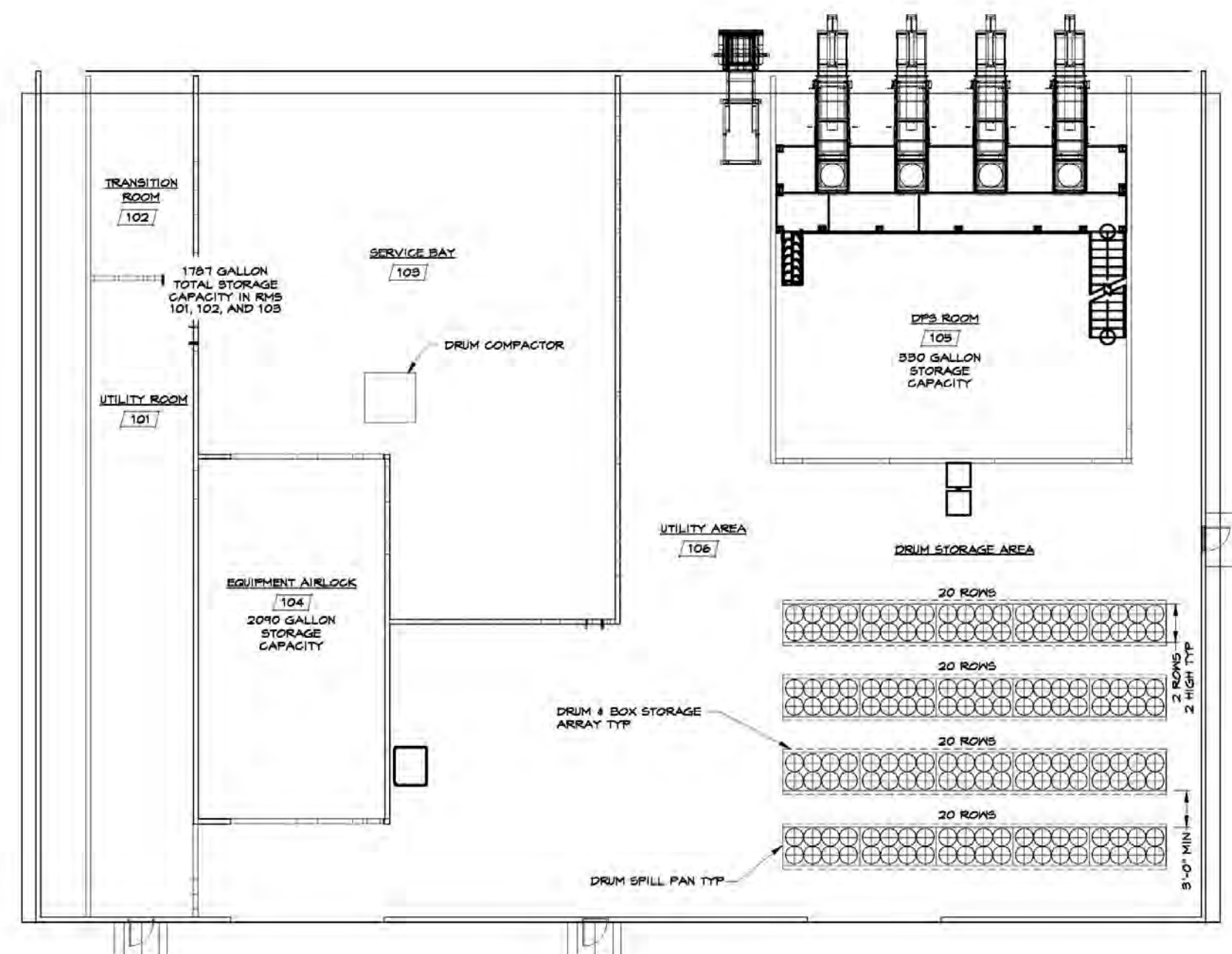
It is a recognized situation that within the WMF-1617 and WMF-1619 waste exhumation facilities, contaminated soils are present from previous CERCLA operations. Periodic equipment decontamination may be performed within the retrieval area to achieve acceptable radiological conditions on the equipment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



10: LEOPPD  
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Title: RE5 SECONDARY CONTAINMENT, SOIL SACK, AND STORAGE PROCESSING AREA PLAN  
Author: LEOPPD

EXHIBIT B-6. Schematic of WMF-1617

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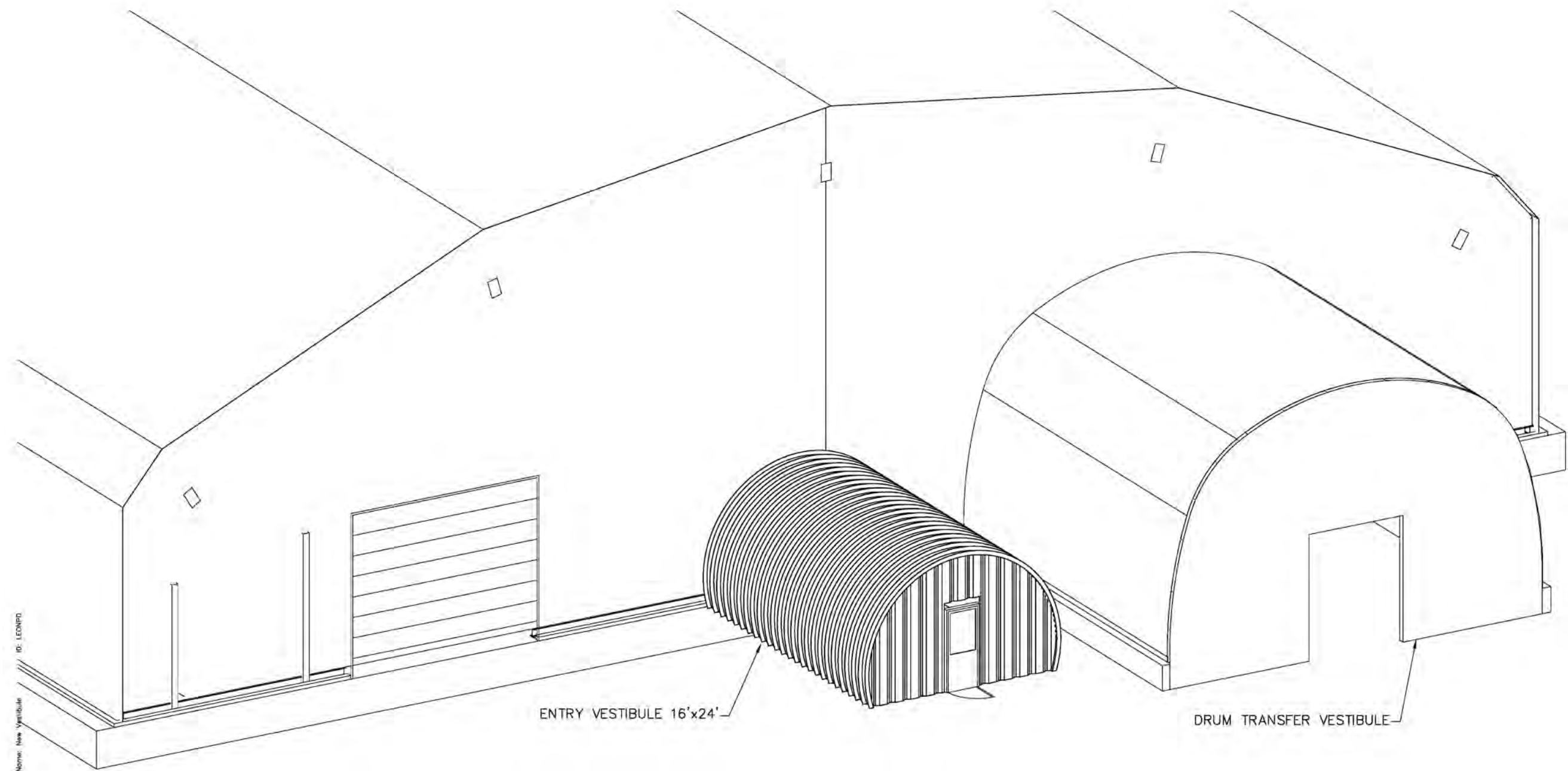


**AIRLOCK 5 DRUM STORAGE PLAN**

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

**EXHIBIT B-7.** Schematic of Airlock 5 Plan





WMF-1617 ENTRY VESTIBULE AND DRUM TRANSFER VESTIBULE

File: Entry Vestibule Rev 2.dwg Date: 08/10/19 - 12:26 PM Layout: Name: New Vestibule  
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## WMF-1619

Building WMF-1619 is an existing building that was established to excavate and repackage CERCLA generated waste as part of the ~~Accelerated Retrieval Project~~-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 ~~will be~~ is administratively controlled so that RCRA and CERCLA operations do not occur at the same time. Exhibits B-~~8~~9, B-~~10~~11, and B-~~9~~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 I of this Permit.



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

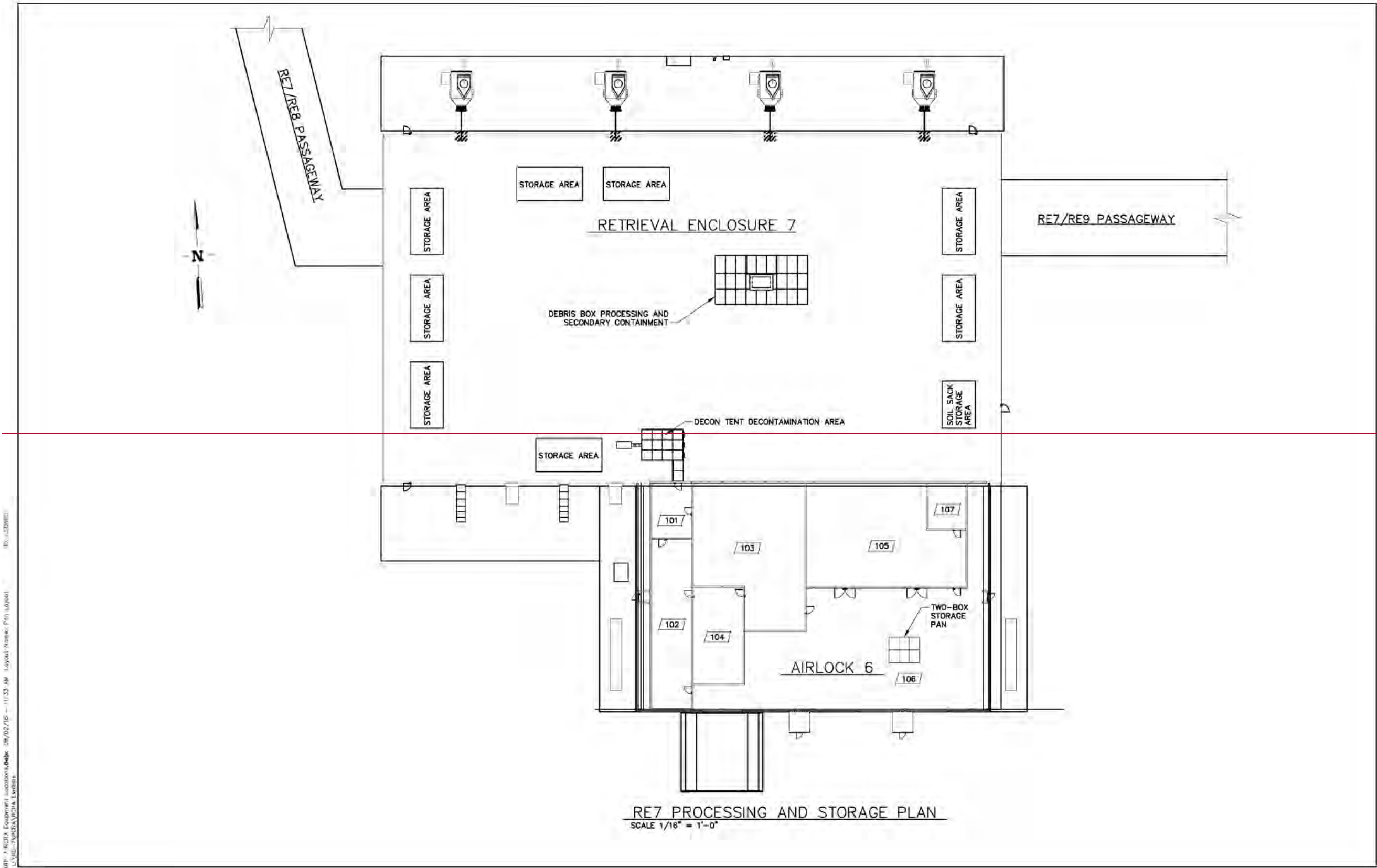
### **Room 106 Utility Area in WMF-1619**

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

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





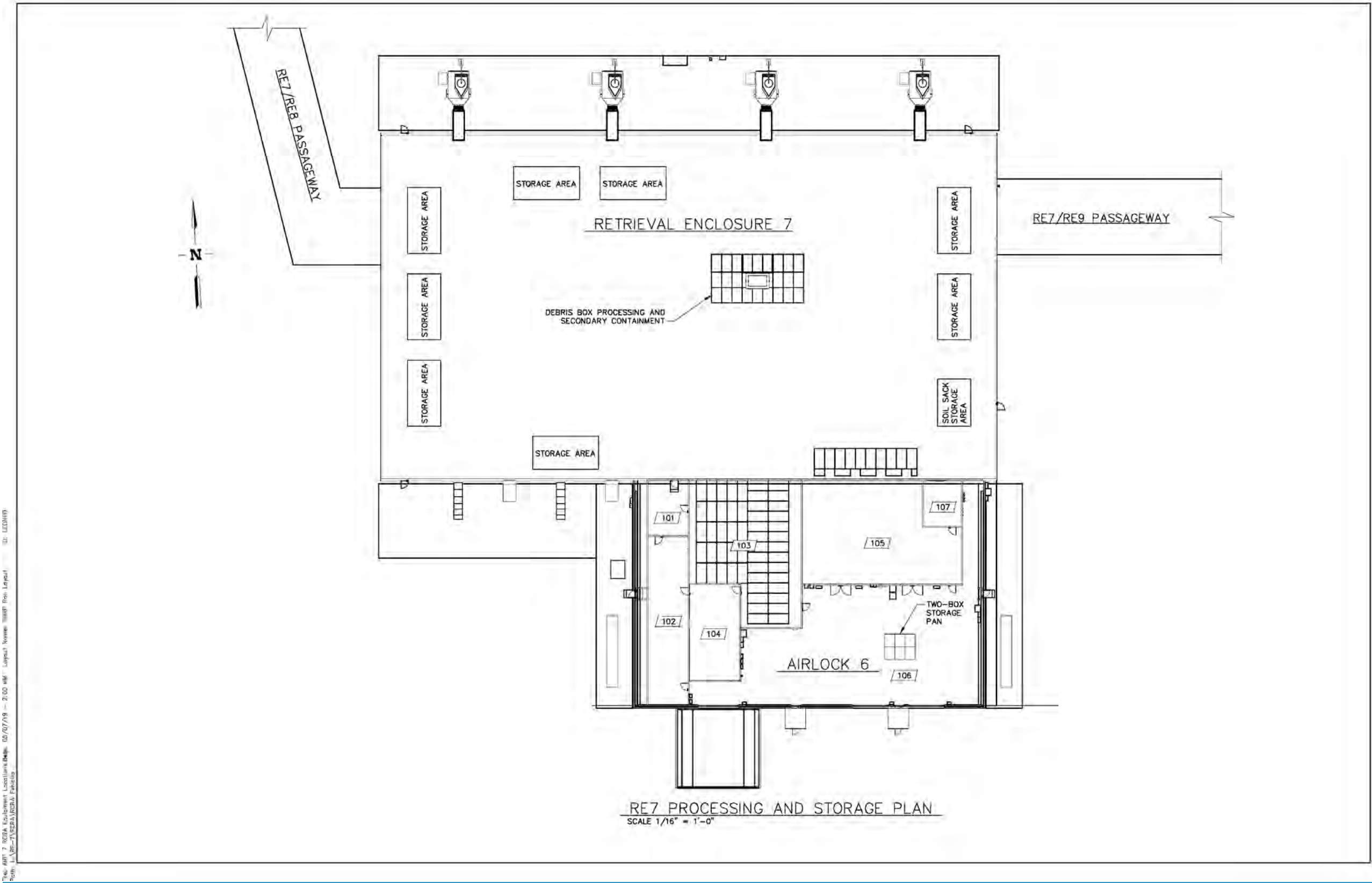


EXHIBIT B-9. Schematic of WMF-1619 Processing and Storage Plan for DRP Operations



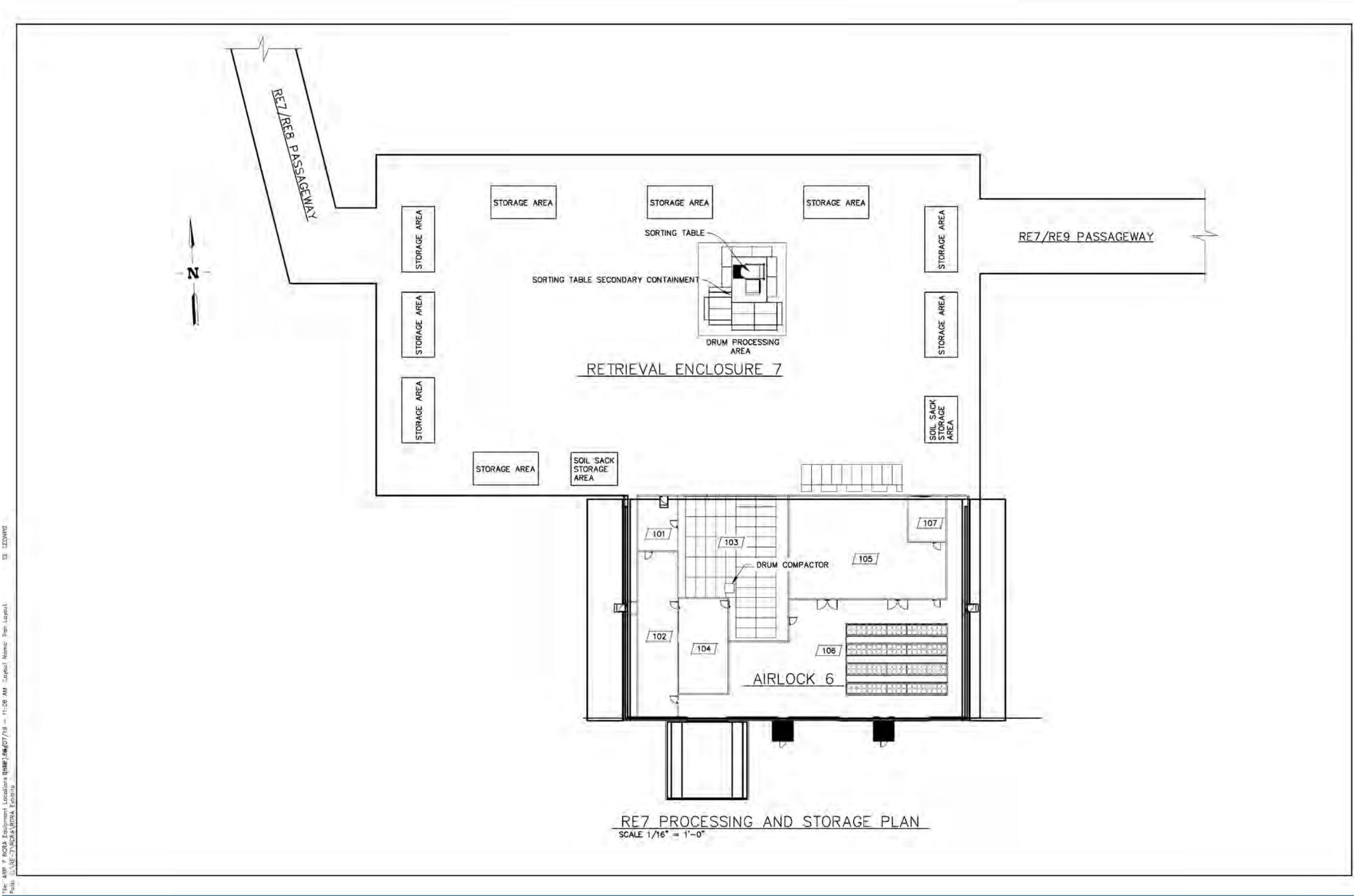
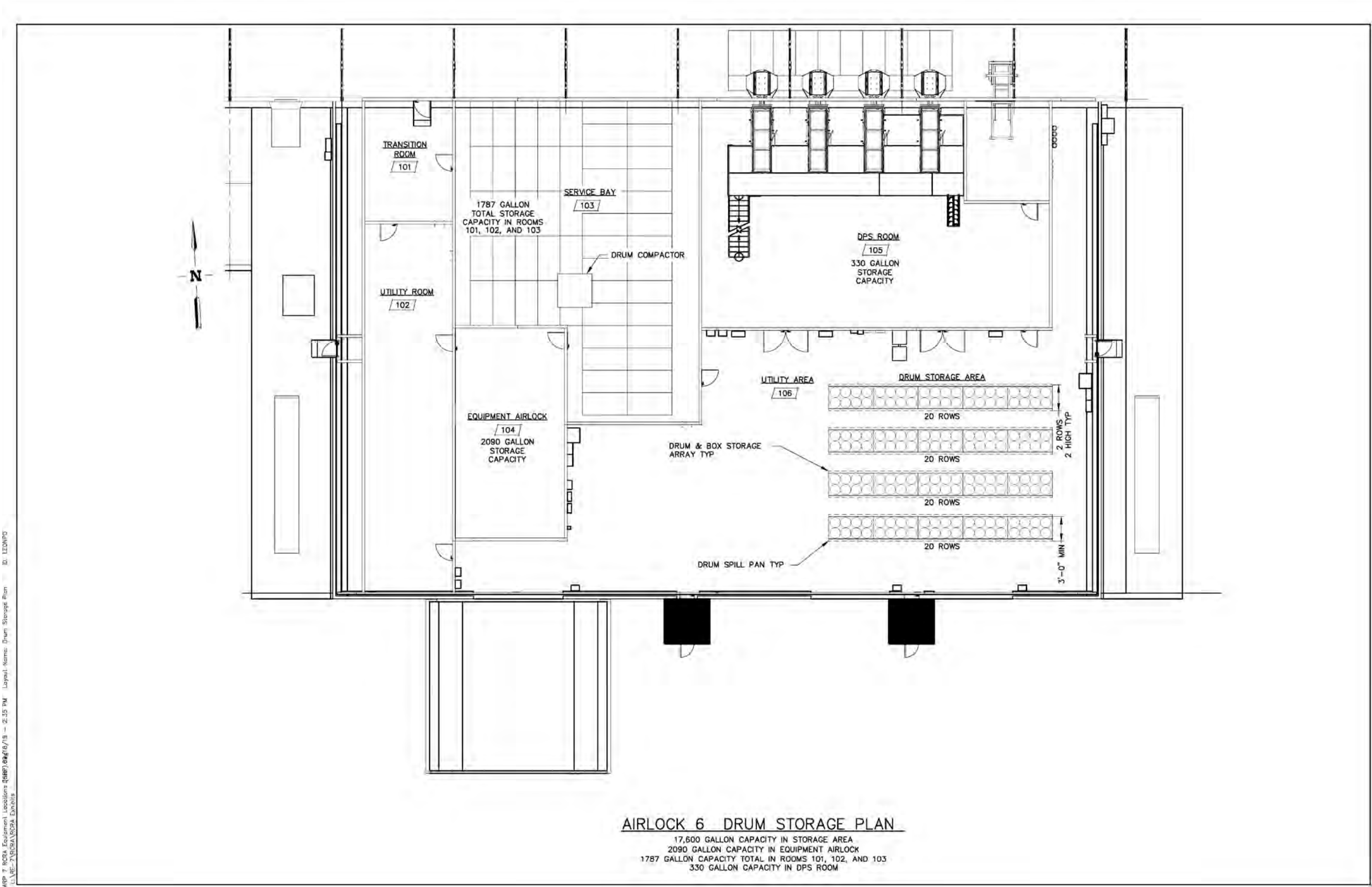


EXHIBIT B-10. Schematic of WMF-1619 Processing and Storage Plan for SRP Operations



File: ARP 7 RCRA Equipment Locations 08/16/16 - 2:35 PM Layout Name: Drum Storage Plan ID: LEONPO  
Title: UVE-7 RCRA RCRA Exhibit

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

## **RWMC Location Information**

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

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

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

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

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

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

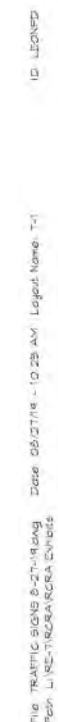
U.S. Route 20/26 is the general access route to the RWMC and the SDA. Van Buren Boulevard intersects U.S. 20/26 northeast of the RWMC and is the direct access road leading to the Experimental Breeder Reactor I (EBR-I). Adams Boulevard intersects Van Buren Boulevard just north of EBR-I and is the direct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

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

Traffic control procedures within the SDA area support facility operations, maintenance, and waste transfers. These traffic procedures are implemented using standard highway traffic control and informational signs. The typical sign types that may be used in the SDA are: Stop signs (at access gates and some road intersections); Clearance signs (where electrical lines pass over the roadway and restrict traffic); Speed Limit signs (various signs on roadways as necessary); Directional signs (various roadways to indicate traffic flow direction); and Informational signs (various roadways to indicate facility locations, loading/unloading areas, etc.). Example locations of stop signs and speed limit signs for the SDA are shown in Exhibit B-912.







30



## D. PROCESS INFORMATION

This section provides process information for the Radioactive Waste Management Complex (RWMC) Subsurface Disposal Area (SDA) Sludge Repack~~age~~-Project (SRP) and Debris Repackaging 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-1619only) and miscellaneous storage (X99) ~~—in Buildings WMF-1617 and WMF-1619~~. Miscellaneous treatment ~~will-be~~is conducted in three miscellaneous treatment units in WMF-1617; the retrieval area, the DPSs, and the drum compactor. Miscellaneous treatment in WMF-1619 ~~will-be~~is conducted in the retrieval area, the DPSs, ~~Decon Tent~~, 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 ~~will-be~~is used for storing waste containers received from the AMWTP. Waste containers ~~may-be~~are stored in WMF-698 until being transferred to WMF-1617/1619 for further processing. Maxi-Heat Engine Driven Heaters (diesel fuel) ~~may-be~~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 ~~may~~are either ~~be~~ returned  
2 to WMF-698 for interim storage or returned directly to the AMWTP. WMF-698 is permitted to store  
3 up 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



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

### SLUDGE REPACK PROJECT (SRP)

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

WMF-1617 and WMF-1619 ~~are~~ will be used for storing and processing SRP waste containers received from AMWTP. SRP Container storage areas for WMF-1617 and WMF-1619 are located within Rooms 101/102/103 Service Bay (2 ~~solid~~ standard waste boxes and 8 drums, or 1,787 gallons capacity for each facility), Room 104 Equipment Airlock (38 drums or 2,090 gallon capacity for each facility), Room 105 Drum Packaging Stations (6 drums or 330 gallons capacity for each facility), and Room 106 Utility Area (320 drums or 17,600 gallons capacity for each facility). The standard RCRA storage configuration (2-wide by 2-high) ~~will be~~ is used. These areas are shown in Exhibits B-7 and B-11. Drums/boxes that may contain liquids (i.e., before repackaging and absorbent addition is completed) ~~will be~~ are stored on container storage secondary containment pans to provide secondary containment. Aisle space is maintained for inspection personnel and emergency equipment. Storage in Rooms 101, 102, 103, 104 and 105 is flexible within the room to meet SRP operational needs, but aisle space requirements ~~will be~~ are met in all configurations. Inspections are completed via visual or camera inspections or viewing areas through windows. If waste processing occurs during the shift, inspection of the RCRA areas ~~will be~~ is completed by direct visual inspection. Required inspections on non-operational shifts (i.e., no waste processing activities) may be performed via facility cameras. The RCRA areas within the Retrieval Areas are shown on Exhibits B-6 and B-9.

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

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

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

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

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

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

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

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

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

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

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

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

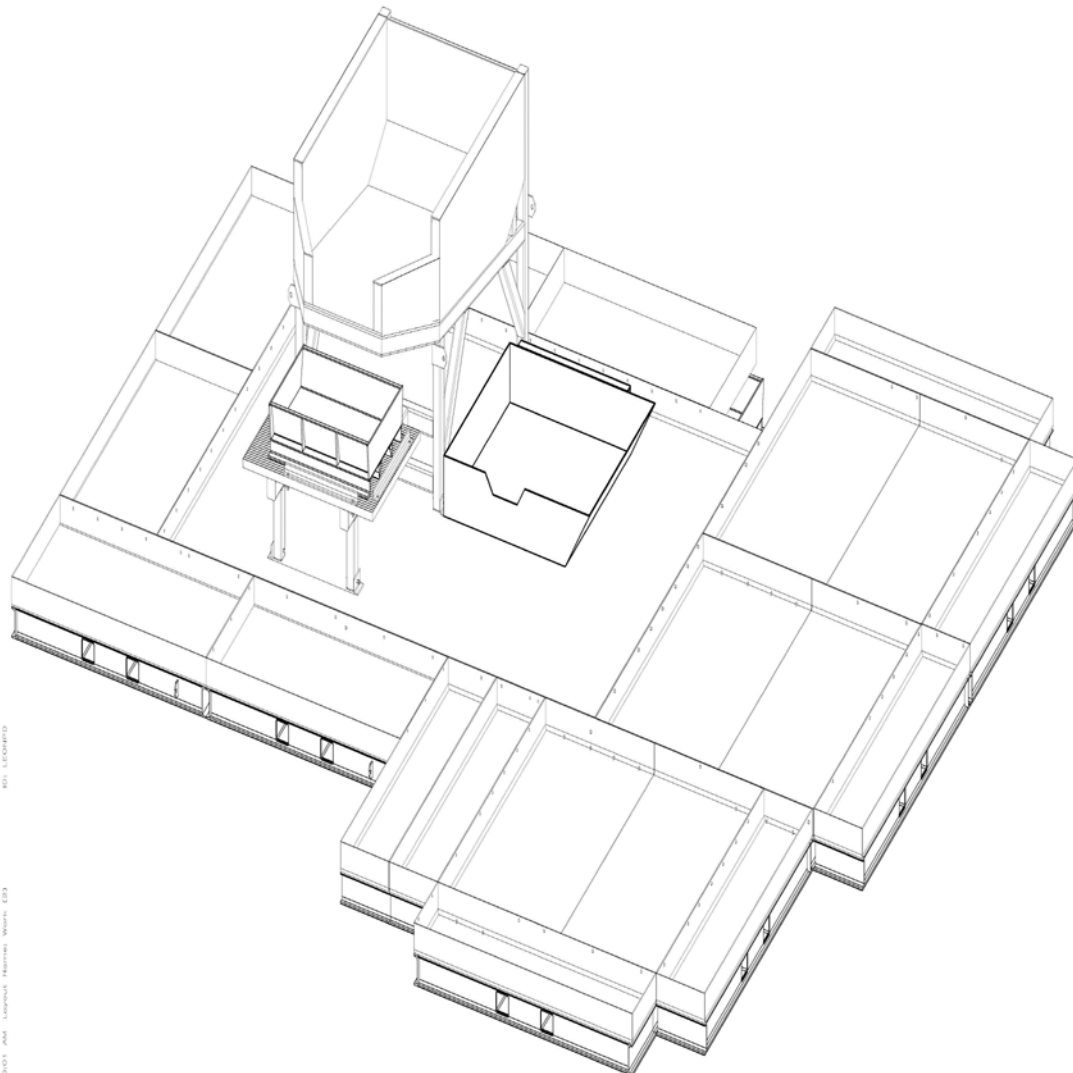
Three 9'x9' containment pans were placed to the northeast of the main sorting pan. These 9'x9' pans are connected to the main sorting pan with u-shaped steel bridges over the joints. Additional bridges were placed at any exposed critical pan junctions.

Also shown in Figure D-2 (in red), is an inner containment pan (5' by 6') that is used in support of the sorting table operations for initial drum processing activities (removal of lids and removal of drums from overpacks), use of the spiking tool to facilitate removal of waste from the drums, and for containment and absorption of liquids that may release during removal of drums from the overpack containers. This inner pan was added as an extra level of containment during these processes to prevent waste from entering the secondary containment within the treatment area. The inner containment pan ~~will be~~ 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 ~~The contents of up to 3 drums may be processed on the sorting table at one time.~~ No more than  
10 two drum equivalents are permitted on the sorting table at any time. Criticality Safety may have more  
11 restrictive requirements (i.e., fewer drum equivalents allowed on the sorting table) based on fissile  
12 characteristics of the waste. The waste is then segregated/sorted to determine the presence of liquids and  
13 identify/remove any prohibited items. Any inner containers that may have liquid content are  
14 opened/crushed with the excavator thumb or bucket to allow absorption of the liquid to take place.  
15 The excavator is used to add absorbent materials (identified in Attachment 2) to the waste on the  
16 sorting table. The absorbent material is staged in the RA within a 4'-6" by 3'-0" by 2'-6" bin that has  
17 a capacity of 250 gallons. The waste/absorbent is mixed on the sorting table with the excavator bucket  
18 to ensure absorption of the liquids. Once mixing is completed, the waste is scraped from the sorting  
19 table into the lined waste trays that have been placed in front of the sorting table. Care ~~will be~~ is taken  
20 not to overfill the waste tray, as additional absorbent may be added in the DPS. The filled waste tray  
21 will then be staged on a waste tray secondary containment pan or transported to the DPS for further  
22 processing, depending on DPS availability.

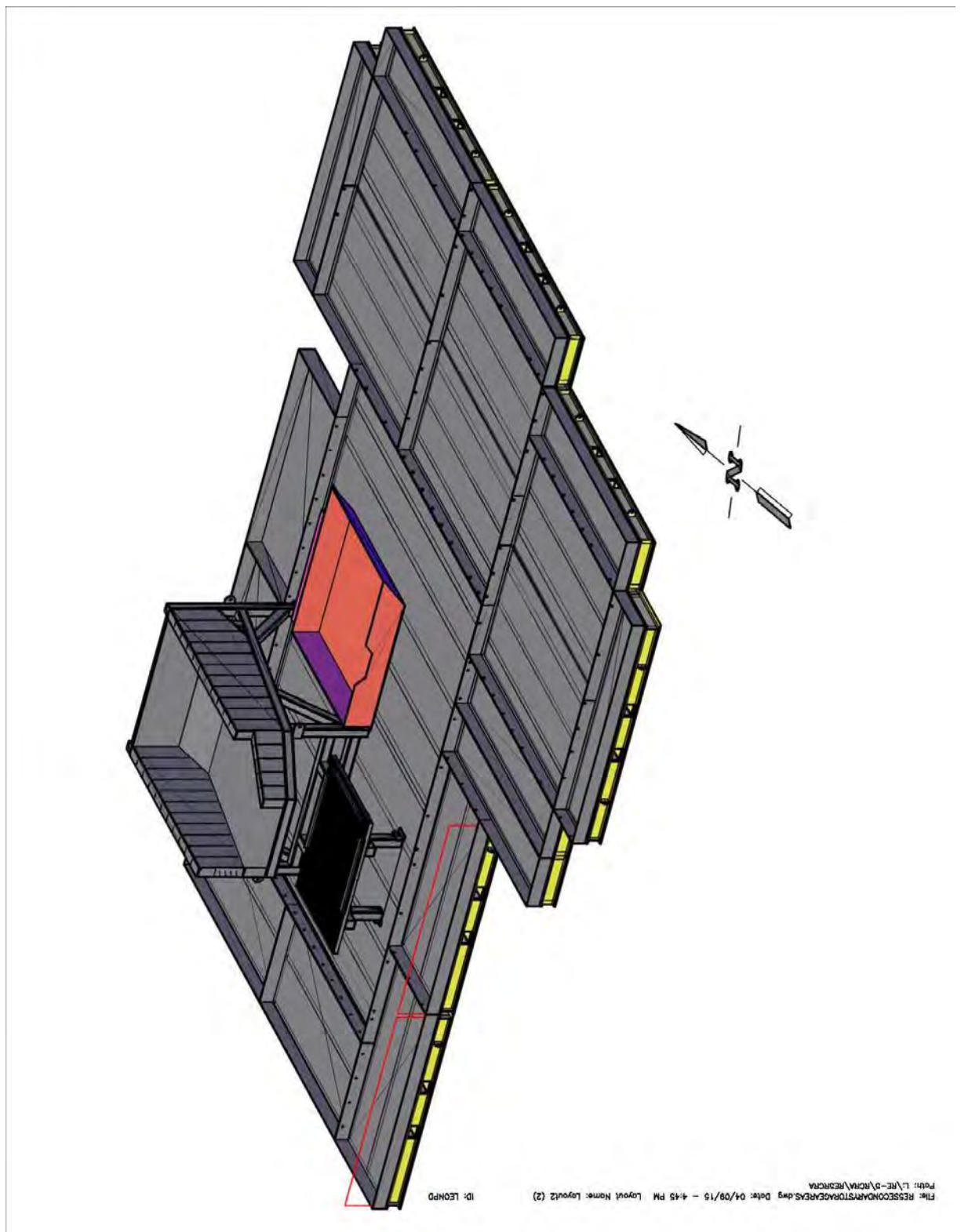


NO. 10000000

Project: HWMA/RCRA Permit, Volume 18, Book 3A – RWMC SDA  
Drawing: Sorting Table and Secondary Containment  
Date: 02/12/2016  
Author: [illegible]  
Reviewer: [illegible]  
Status: [illegible]

SORTING TABLE AND SECONDARY CONTAINMENT  
3D 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).

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

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

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

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

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

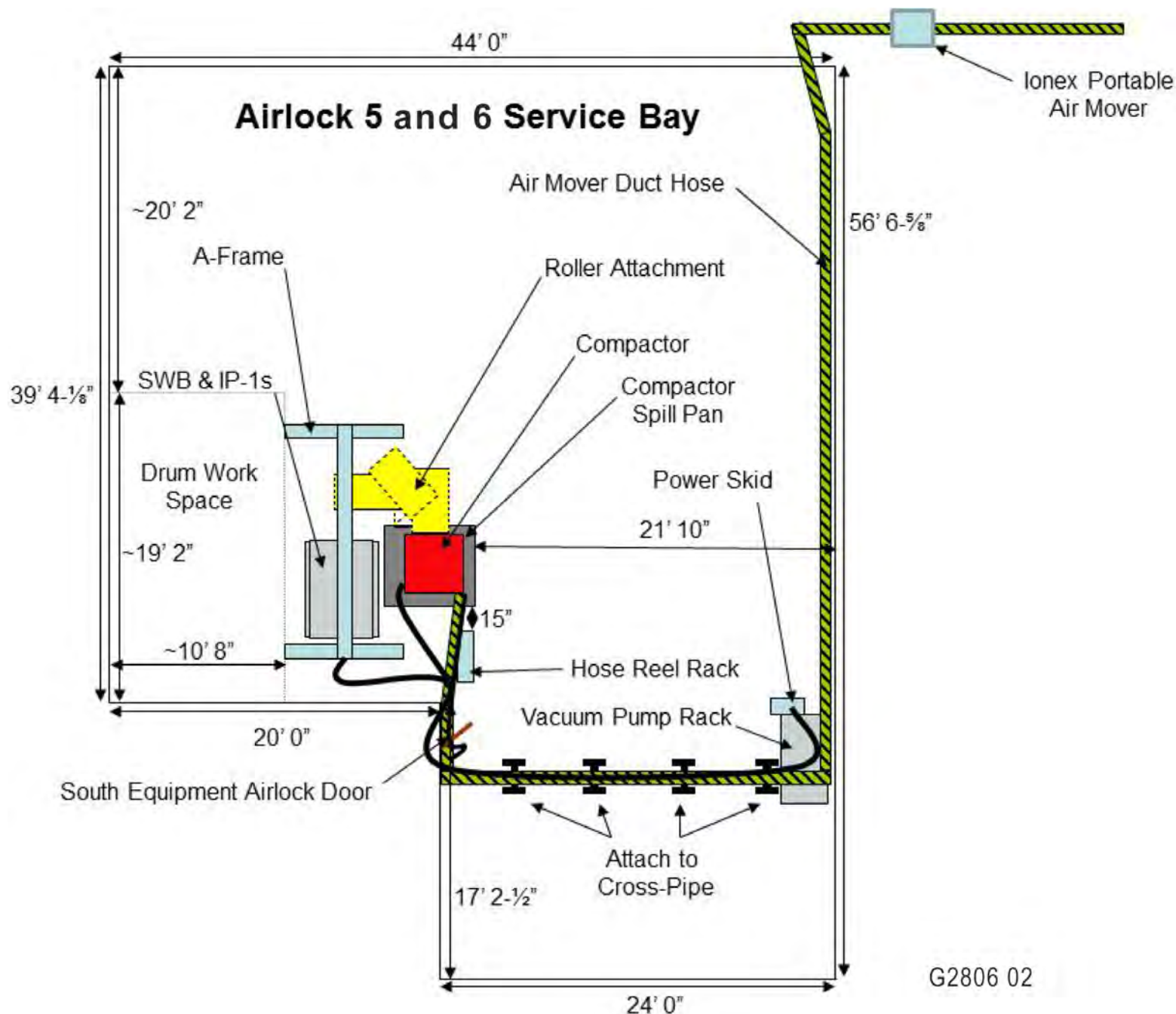
management as RCRA secondary waste (i.e., hazardous debris). Secondary wastes ~~will be~~are placed into drums, standard waste boxes, or other waste boxes. After being emptied in the DPS, the waste trays are returned to the RA and stacked on a waste tray secondary containment pan for reuse in the process.

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

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



41



**EXHIBIT D-4.** [Example Schematic](#) of Drum Compactor [used at WMF1617 and WMF-1619](#)



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

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

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

The liner, a bottom discharge type, ~~will be~~ is then discharged allowing the waste to transfer to the drum. Absorbent ~~will be~~ is added in accordance with WIPP requirements. The tray liner ~~will be~~ is included in a waste drum. The transfer sleeve is then cut using radiological control protocols, the drum lid is attached, and contamination surveys performed on the outside of the drum. The drum is then moved using a drum hauler within the airlock for staging in the utility room (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 ~~will be~~is conducted on  
6 each operating day using equipment-based cameras or cameras located throughout the RA as  
7 shown in Exhibit D-3, to ensure collection of any waste/material that is spilled. An inspection  
8 ~~will~~is also be conducted if the treatment process is shut down for more than five days. Direct  
9 visual inspection by personnel in PPE ~~will be~~is completed during shifts when waste processing  
10 occurs.

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

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

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

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

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

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

Processing waste at WMF-1619 ~~was to be~~is performed in ~~four~~the following areas: the Retrieval Area (X99), ~~the Decon Tent within the Retrieval Area (X99)~~, the DPS stations (X99), and Room 103 Service Bay (X99). ~~however the Decon Tent was never built.~~ Miscellaneous storage (X99) consists of staging of waste within secondary containment in the Retrieval Area prior to or following processing, and staging

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

WMF-1619 is being used to process waste containers from AMWTP that contain large debris that cannot be handled at AMWTP. Waste boxes are placed on a Box Transfer Pan using a forklift in Room 104 or crane in Room 103 prior to being processed in the Retrieval Area. The 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, and sizing waste to fit into containers. In addition, the large debris items may be transferred into the [service bay \(Room 103\)](#) ~~Decon Tent within the Retrieval Area~~ for manual radiological decontamination. The decontamination process will include simple manual decontamination by operations personnel in PPE, such as using hand spraying equipment (small portable container with a wand or spray bottles), wiping by hand, brushes, carbon dioxide (CO<sub>2</sub>) decon, etc. Liquids/gels used for decontamination are commercially available, non-solvent, and non-ignitable (e.g., window cleaner, Radiac, Speedball, etc.). Absorbent addition to any liquid decontamination wastes will also be performed (see Attachment 2 for approved absorbents). ~~The Decon Tent contains a 11'6" by 15'6" by 6" secondary containment pan in which all decontamination activities within the Decon Tent are conducted. The Decon Tent containment pan is shown in Exhibit D-8.~~

The Drum Packaging Stations activities include segregation of prohibited items, addition of absorbents to the waste in the tray as necessary, decontaminating containers, visual examination by WIPP-qualified visual examiners to document compliance with the WIPP WAC, and placing the waste into new containers. These activities will allow the repackaged waste to meet the WIPP WAC or other disposition requirements. Containers staged in the retrieval area ~~will be~~ [are](#) placed in waste tray secondary containment pans. Containers without liquids, solid debris on a box transfer pan, and soil sacks with secondary waste do not require secondary containment. The locations of the 9' by 18' staging areas within the RA are shown in Exhibit B-8, each area contains two waste tray secondary containment pans. The waste tray secondary

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

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

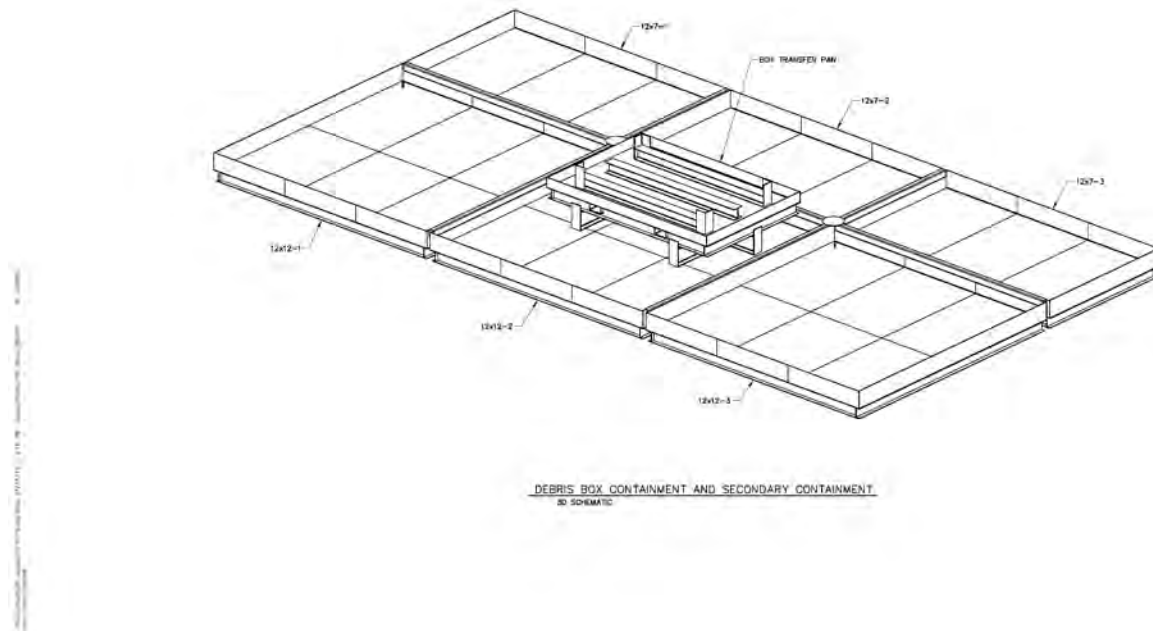
To support DRP operational requirements, additional containment pans have been added to the perimeter of the main secondary containment pan as shown in Exhibit D-5. Two 12' by 12' by 10" secondary containment pans have been added on either side of the main secondary containment pan and three 12' by 7'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

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

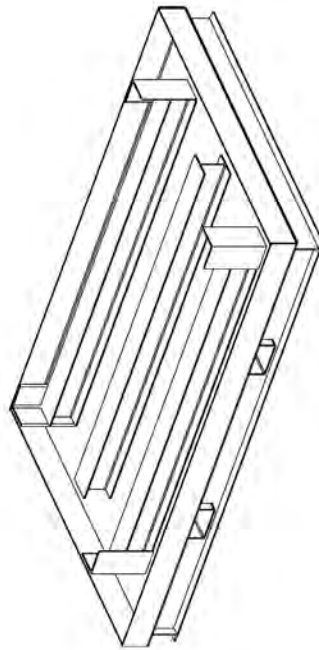


containers that may have liquid content are opened/crushed with the excavator thumb or bucket to allow absorption of the liquid to take place.

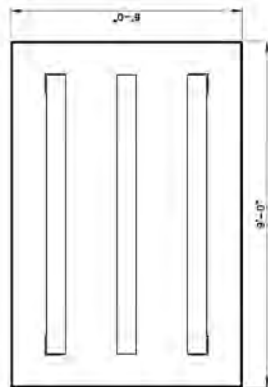
Large debris items (pipe, metal, etc.) ~~will be~~are transferred in the Box Transfer Pan to the ~~Decon Tent (see Exhibit B-8 for the location of the Decon Tent and Exhibit D-7 for the tent itself) or the~~ Service Bay. Decontamination ~~will be~~is completed within the secondary containment by personnel in PPE using simple manual processes such as hand spray equipment, wiping by hand, using brushes, carbon dioxide decon, etc. ~~The Decon Tent is used for radiological control during decontamination operations.~~



**EXHIBIT D-5.** Debris Box Containment and Secondary Containment



9'X6' BOX TRANSFER PAN  
STEEL PLATE PAN WITH STEEL  
C-CHANNEL BASE FRAME.  
WELDED CONSTRUCTION.



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

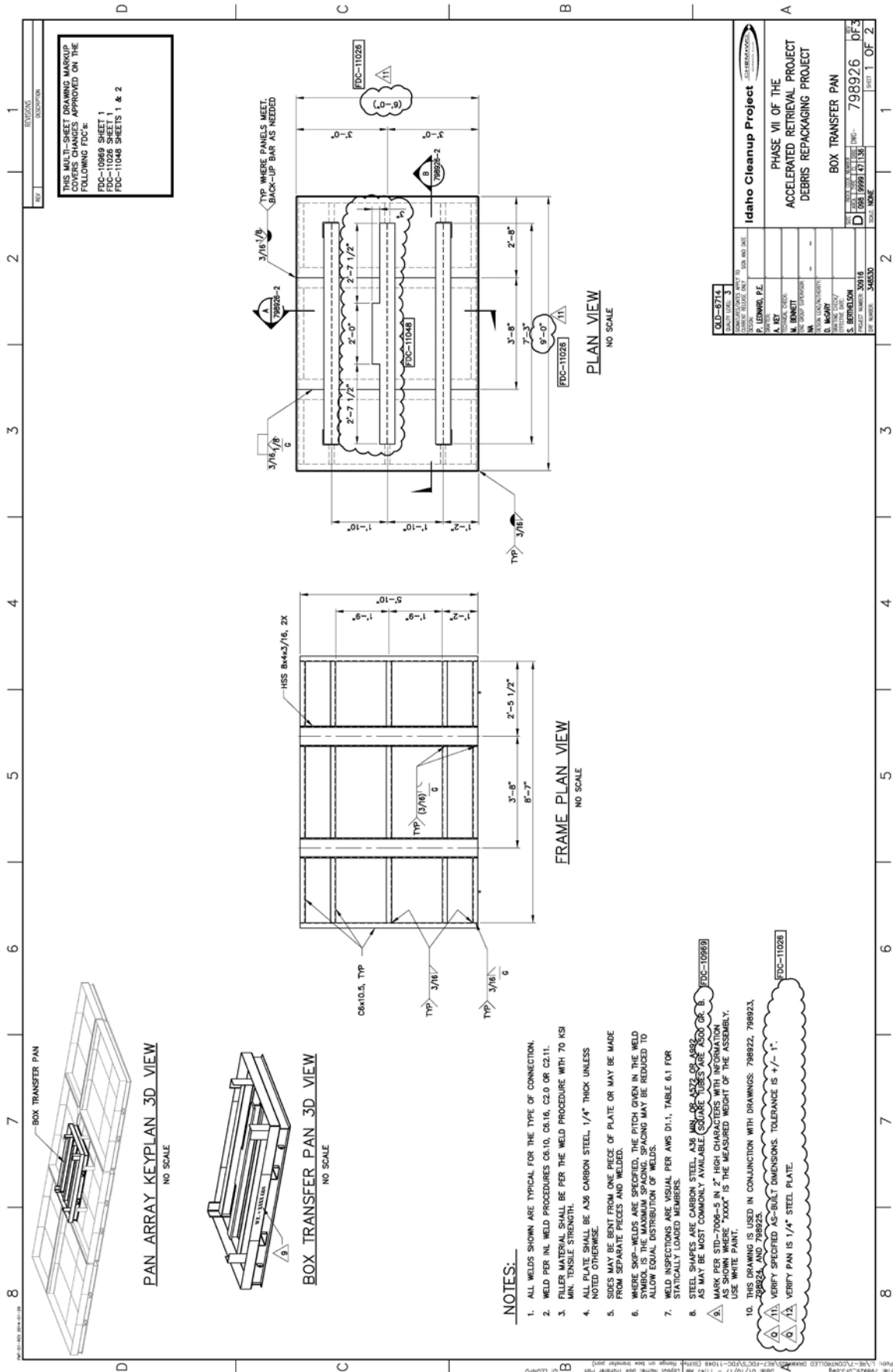
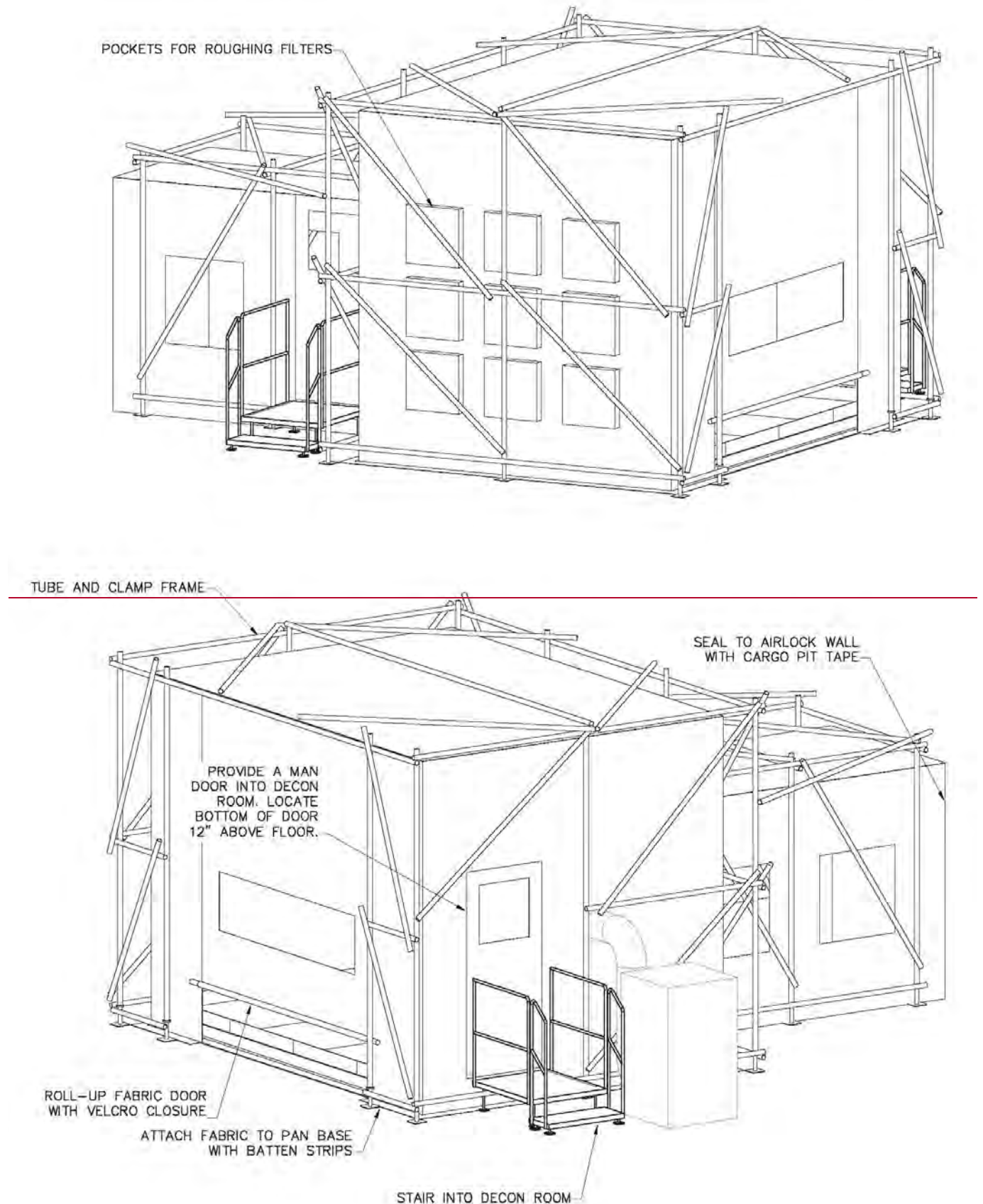


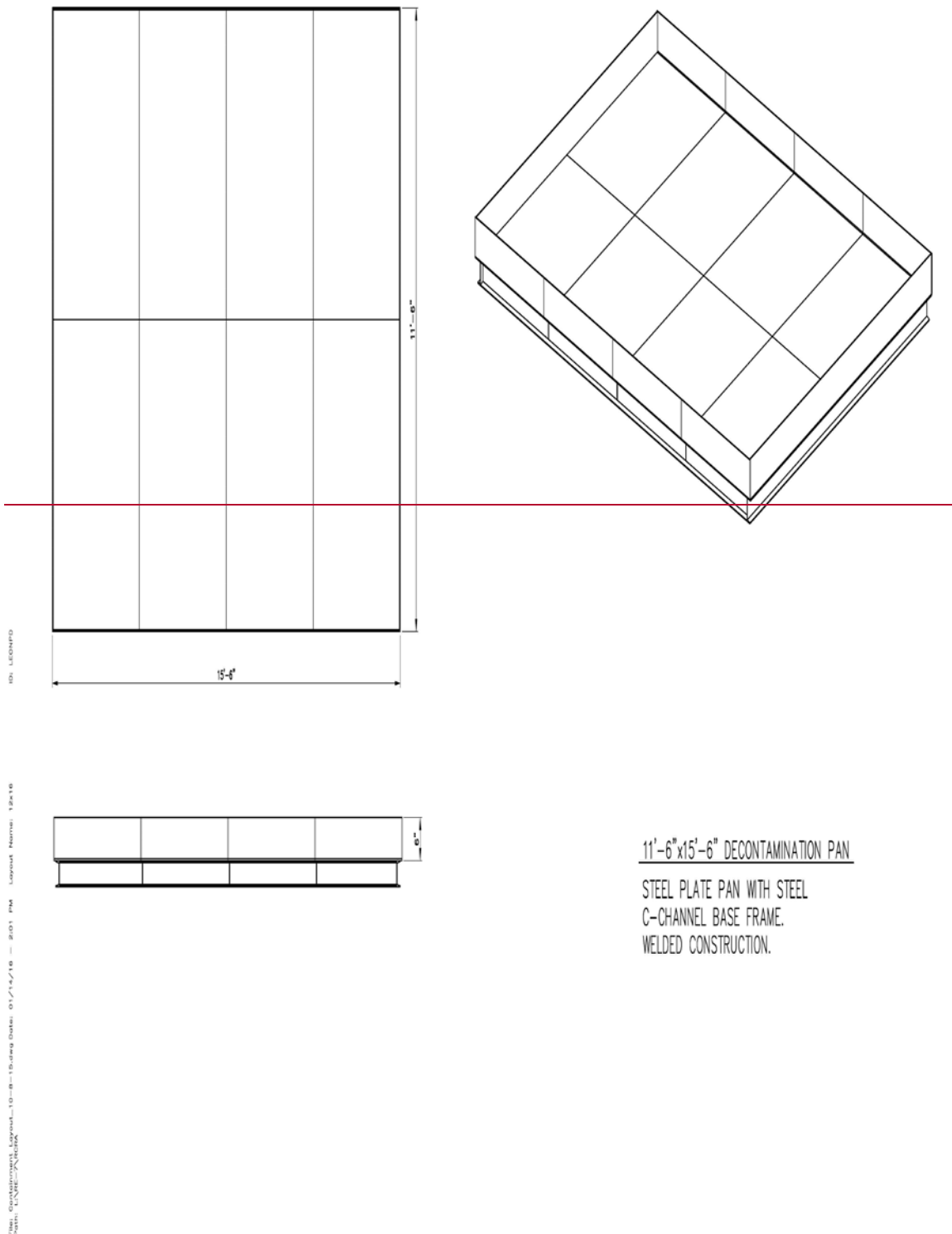
EXHIBIT D-6b. Modified Box Transfer Pan (Sheet 1)





**EXHIBIT D-7. WMF-1619 Decon Tent**





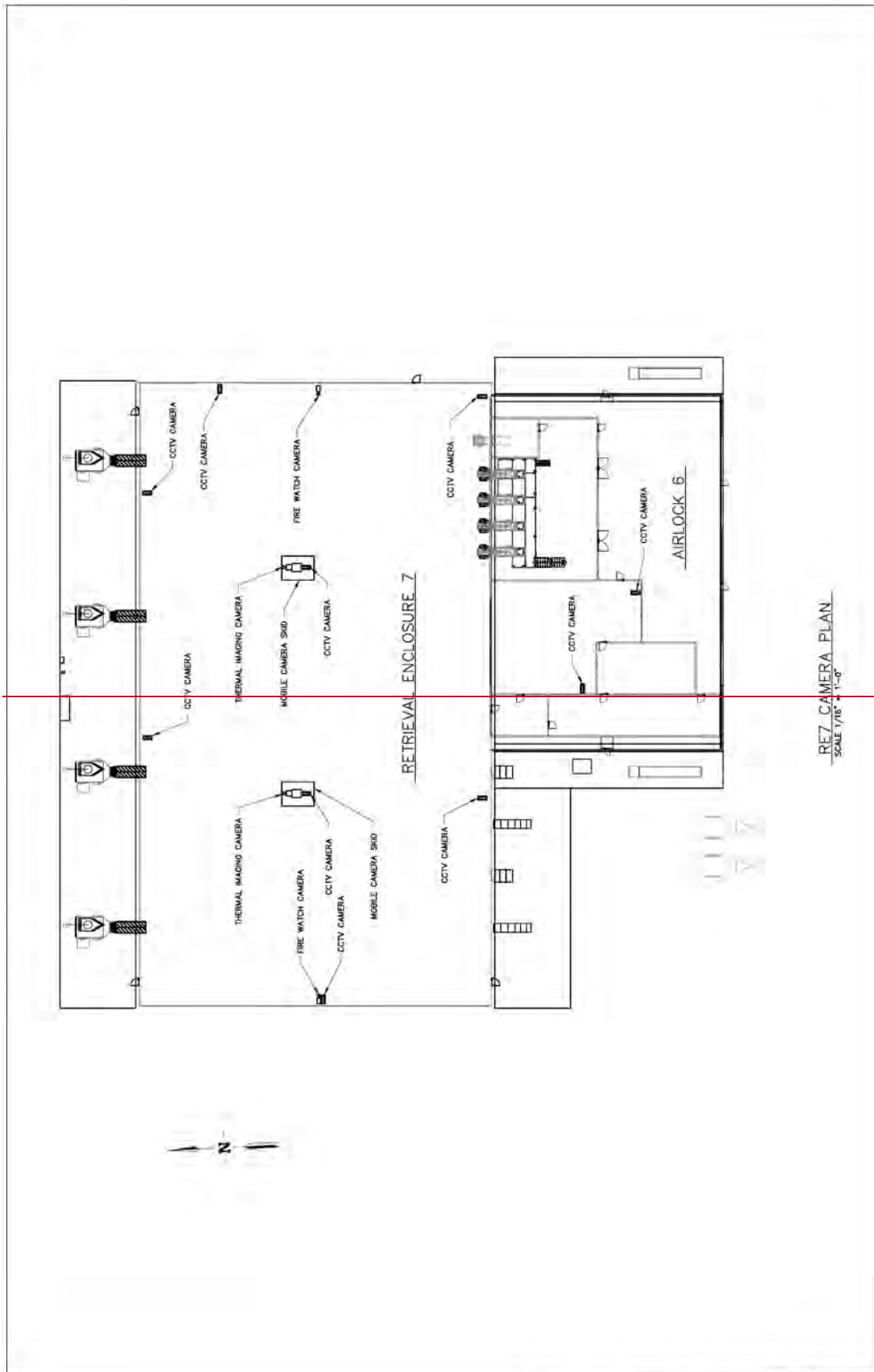
**EXHIBIT D-8. WMF 1619 Decon Tent Secondary Containment**

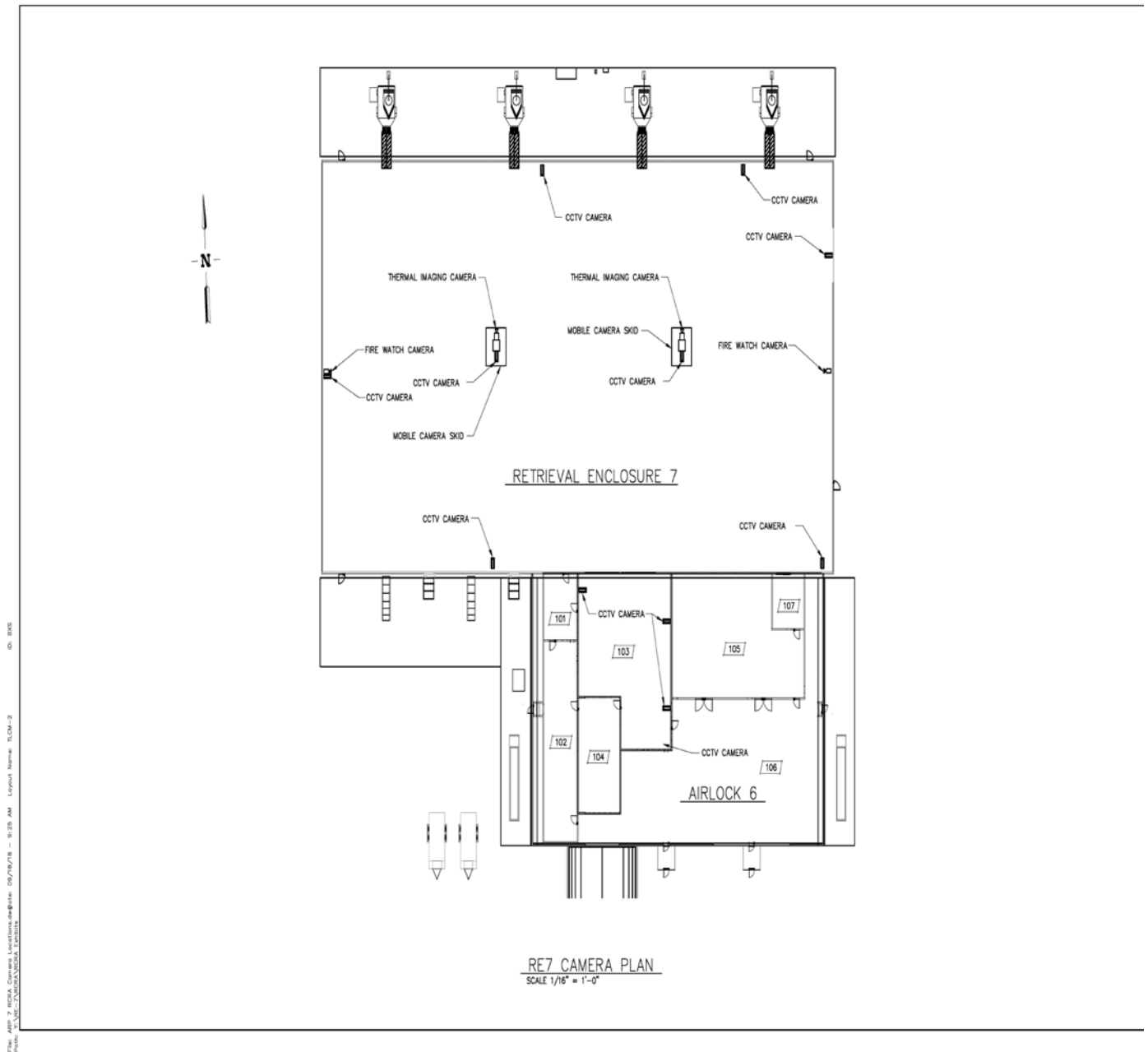
1           The DRP waste processing activities performed inside the retrieval enclosure are  
2   observed through either excavator mounted cameras or cameras located within the facility  
3   (see Exhibit D-97 for camera locations) that broadcast a video feed to the operations control  
4   room. The operations foreman directs the operation through viewing these camera feeds and  
5   communicates by radio with the equipment operator.

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

16           Secondary wastes ~~will be~~are placed into drums, standard waste boxes, soil sacks, or  
17   other 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 ~~will be~~is performed at the  
24   AMWTP. The characterization information from these processes ~~will be~~is included in the  
25   updated AK package by AMWTP for shipment to WIPP.





**EXHIBIT D-79.** WMF-1619 Retrieval Enclosure Camera Plan [for SRP and DRP Operations](#)

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

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

If waste is spilled outside of containment pans (i.e., into the surrounding soil), operations personnel ~~will~~ immediately uses excavation equipment to collect the spilled material and surrounding soil. Hand excavation by personnel in protective equipment may also be used to collect the spilled material and surrounding soil. Inspections of the soil in the immediate vicinity of waste tray secondary containment pans and the drum processing area ~~will be~~ is conducted on each operating day using equipment based cameras or cameras located throughout the RA as shown in Exhibit D-97, to ensure collection of any waste/material that is spilled. An inspection ~~will also be~~ is also conducted if the treatment process is shut down for more than five days. Direct visual inspection by personnel in PPE ~~will be~~ is completed during shifts when waste processing occurs.

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

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

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

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

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

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



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

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

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

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

- Work Control
- Receipt, inspection, and documentation of waste
- Operations at WMF-698, WMF-1617 and WMF-1619
- Non-destructive assay
- Log keeping practices and checklists
- Radiation and contamination control
- Industrial and fire safety
- As low as reasonably achievable (ALARA) radiation protection program
- 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 ~~will be~~ are elevated on a grate within the drum storage secondary containment pans so that should a leak/spill occur, the primary container ~~will be~~ is not ~~be~~ 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 ~~will be~~ is identified and either be overpacked or transferred into WMF-1617 or WMF-1619 for immediate processing. Liquids ~~will be~~ 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.

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

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

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

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

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

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

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

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

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

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

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

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

**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)]**

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

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

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

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

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

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

**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)]**

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

**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)]**

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



**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)]**

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

**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)]**

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

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

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

**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)]**

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

**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)]**

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

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

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

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

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

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

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

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

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

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

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

**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)]**

For reasons discussed in Sections D-8b, D-8b(2), and D-8b(4), the potential is extremely small for any of the waste constituents to be a risk to human health or the 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: ~~June 8, 2017~~

## 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 to be accepted from AMWTP has been previously characterized 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).~~ 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 ignitability (D001) or reactivity (D003) as defined in 40 CFR 261.21 “Characteristics of ignitability,” 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. ~~No issues of ignitability or reactivity have been identified in the characterization of the waste streams to be stored/treated at WMF-698, WMF-1617 and WMF-1619. Compatibility determinations~~ Chemical compatibility evaluations are made based on the waste characterization data prior to acceptance of IDCs for treatment and storage. ~~containers.~~ 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. ~~The evaluations will be placed in the facility operating record.~~ 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. ~~Containers that have identified aerosol cans 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

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

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

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: ~~June 8, 2017~~

**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
<b>FIRE PROTECTION SYSTEM</b>			
Fire detection and alarm system	Alarm condition	Monthly	Operations
Portable fire extinguishers • Class A-B-C Extinguishers •	Physical damage, charge, accessibility, seals	Monthly	Operations
<b>EMERGENCY EQUIPMENT</b>			
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
<b>OPERATING AND STRUCTURAL EQUIPMENT</b>			
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
<b>SECURITY INSPECTIONS</b>			
SDA Gates/fence and their signs	Missing, damaged or obstructed signs or fence	Semiannual	Operations
<a href="#">Continuous Air Monitors (CAMs)</a>	<a href="#">Inspect weekly in storage areas to ensure CAMs are operable.</a>	<a href="#">Weekly in storage areas</a>	<a href="#">Radiation Protection</a>

**Inspection Schedule for WMF-1617 (continued)**

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

### Inspection Schedule for WMF-1619

Equipment Inspected	Types of Problems or Observations	Frequency	Inspecting Organization
<b>FIRE PROTECTION SYSTEM</b>			
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
<b>EMERGENCY EQUIPMENT</b>			
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
<b>OPERATING AND STRUCTURAL EQUIPMENT</b>			
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 ( <a href="#">Room 103 Drum Compactor</a> , Room 105 Drum Packaging Stations, and Retrieval Area – drum/tray/box staging, <del>Decon Tent</del> , 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
<b>SECURITY INSPECTIONS</b>			
SDA Gates/fence and their signs	Missing, damaged, or obstructed signs or fence	Semiannual	Operations

Inspection Schedule for WMF-1619 (continued)

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



## **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. 4)
- FRM-1367. STANDARD WASTE BOX (SBW) and IP-1 BOX INVENTORY SHEET and RCRA EMPTY CONTAINER VERIFICATION (Rev. 9)

### **WMF-1619**

- FRM-1812. WMF-1619 TRAILER LOADING/UNLOADING AREA RCRA INSPECTION Rev. 0)
- FRM-1811. WMF-1619 WEEKLY RCRA INSPECTIONS (Rev. 2)
- FRM-1809. WMF-1619 TREATMENT AREA RCRA DAILY INSPECTION (draft Rev. ~~1~~4)
- FRM-1810. WMF-1619 MONTHLY RCRA INSPECTION SPILL CONTROL CABINET AND FIRE EXTINGUISHERS (Rev. 1)
- FRM-418 WMF-1619 RCRA EMPTY CONTAINER VERIFICATION (Rev. 0)

### **WMF-1621**

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

Signature/Date

The Open RCRA Remedials Tracking Book Index for this form has been compared to the last completed form FRM-1809, the index has been updated, and the current open RCRA Remedials have been recorded on the tracking table on this form.  
(initials):

[illegible]

1. Check NA if no inspection is required.

[illegible]

## WMF-1619 TREATMENT AREA RCRA DAILY INSPECTION

Inspection done visually (V) or by camera (C).	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>
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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. If personnel in PPE are required to enter the RA, 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. 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.

<b>WMF-1619 Drum/Tray Staging Arrays and Secondary Waste Soil Sacks Storage Area<sup>3,4,5,6</sup></b>	<b><u>Monday</u> (✓ one)</b>	<b><u>Tuesday</u> (✓ one)</b>	<b><u>Wednesday</u> (✓ one)</b>	<b><u>Thursday</u> (✓ one)</b>	<b><u>Friday</u> (✓ one)</b>	<b><u>Saturday</u> (✓ one)</b>	<b><u>Sunday</u> (✓ one)</b>
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"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	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"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	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"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	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"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	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"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	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"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>

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 2-10 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.

## WMF-1619 TREATMENT AREA RCRA DAILY INSPECTION

<u>WMF-1619 Treatment Area</u> <u>(Service Bay, Room 103)<sup>3,4,5,7</sup></u>	<u>Monday</u> <u>(✓ one)</u>	<u>Tuesday</u> <u>(✓ one)</u>	<u>Wednesday</u> <u>(✓ one)</u>	<u>Thursday</u> <u>(✓ one)</u>	<u>Friday</u> <u>(✓ one)</u>	<u>Saturday</u> <u>(✓ one)</u>	<u>Sunday</u> <u>(✓ one)</u>
<u>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).<sup>4</sup></u>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>
<u>Room 103 floor and stainless steel are free of visible waste.</u>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>
<u>Drum compactor is free of spills (liquid or solid), deterioration.</u>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>
<u>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).</u>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>
<u>Containers/trays are located in secondary containment.</u>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/> NA <input type="checkbox"/>	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"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>	V <input type="checkbox"/> C <input type="checkbox"/>

7. 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).

## WMF-1619 TREATMENT AREA RCRA DAILY INSPECTION

WMF-1619 Treatment Area (DPS Room 105) <sup>3,4,8</sup>	<u>Monday</u> (✓ one)	<u>Tuesday</u> (✓ one)	<u>Wednesday</u> (✓ one)	<u>Thursday</u> (✓ one)	<u>Friday</u> (✓ one)	<u>Saturday</u> (✓ one)	<u>Sunday</u> (✓ one)
DPSs are free of leaks, spills, deterioration (that would prevent the DPS from performing the intended purpose).	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <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).	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>
Concrete and soil surfaces surrounding the debris slides are free of visible waste (liquid or solid).	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>

8. 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 Equipment <sup>9</sup>	<u>Monday</u> (✓ one)	<u>Tuesday</u> (✓ one)	<u>Wednesday</u> (✓ one)	<u>Thursday</u> (✓ one)	<u>Friday</u> (✓ one)	<u>Saturday</u> (✓ one)	<u>Sunday</u> (✓ one)
RCRA operations ceased during CERCLA transfer of equipment and/or waste through the RA.	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>
Secondary containment storage areas were temporarily relocated as necessary to allow transfer through the RA.	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <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.	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>	<u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/> <u>NA</u> <input type="checkbox"/>

9. 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.

Comments:

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## Open RCRA Remedials

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

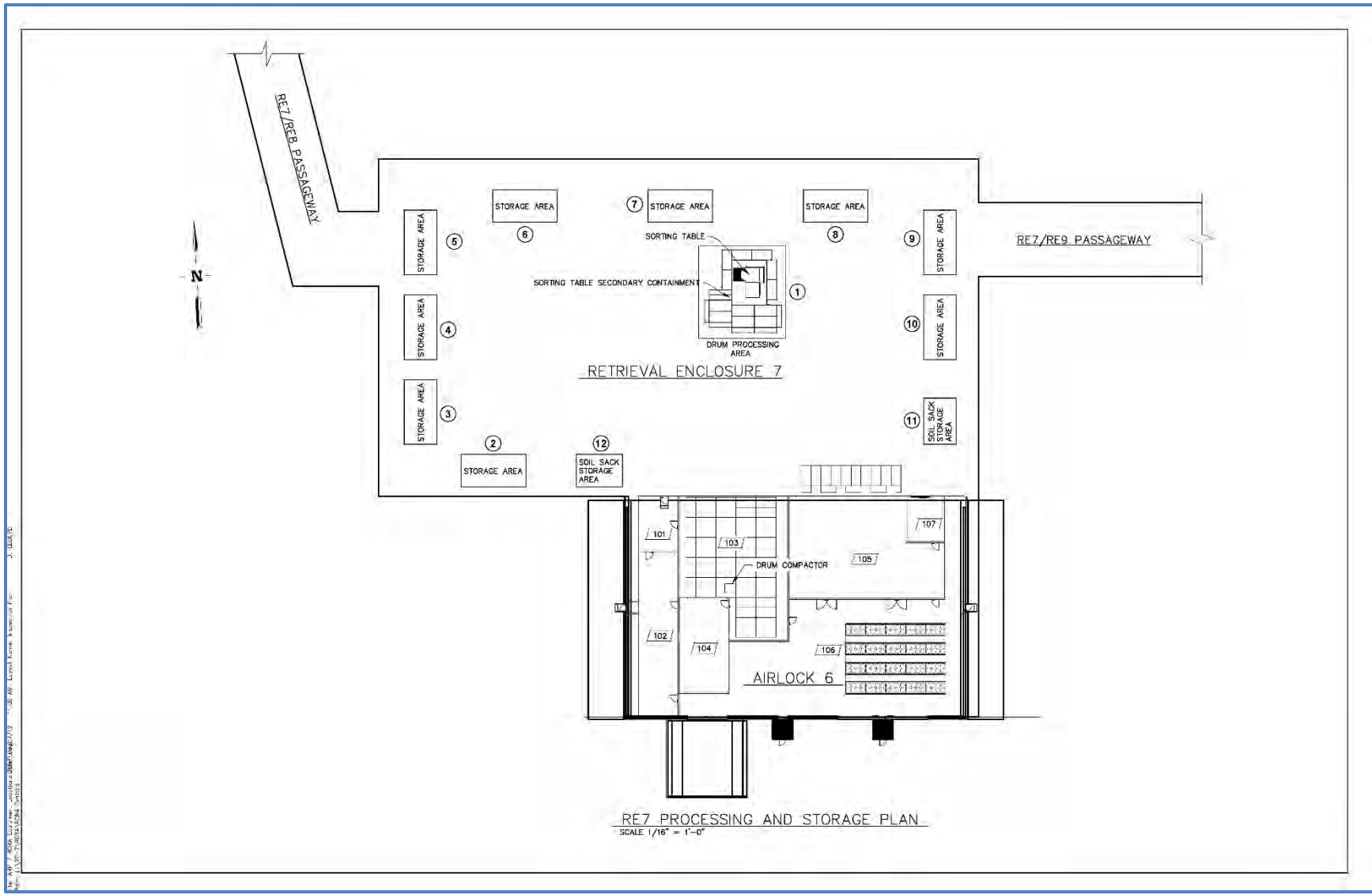
[illegible]



## WMF-1619 TREATMENT AREA RCRA DAILY INSPECTION

Day	Inspector's Name (Print)	Inspector's Signature	Inspection Completed Date	Shift Supervisor Review Signature <sup>10</sup>	SS Review Date
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					

10. 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: ~~July 2, 2015~~

**H-1d. Relevance of Training to Job Tasks [IDAPA 58.01.05.008; 40 CFR 264.16(a)(2)]**

Individual training program profiles are prepared for each TSD unit position that requires a formal training program.

At a minimum, each individual training program profile identifies the following:

- Job description
- Qualifications
- Training requirements.

Profiles typically identify qualification requirements. Occasionally, a position may require specialized training. Special-case training is documented in individual training records. Profiles include requirements for hazardous/mixed waste management or handling and emergency response training.

Supervisors have the responsibility for evaluating training requirements for TSD employees. These supervisors receive additional training in how to conduct and evaluate OJT.

Individuals who demonstrate an equivalency for specific requirements or prerequisites identified in the training profile may be exempted from requirements in accordance with established procedures. Exemptions/equivalencies must be approved by the training director. Each exemption/equivalency is granted in writing and documented in the individual's training record.

**H-1e. Training for Emergency Response [IDAPA 58.01.05.008; 40 CFR 264.16(a)(3)]**

Emergency response training is provided to all personnel assigned to or associated with TSD units, including specialized training for employees with specific emergency action responsibilities, such as the EAM and Emergency Response Organization (ERO) personnel. [AMWTP Emergency Coordinators who assume responsibility for emergency response at ARP facilities, especially during off hours, will receive ARP-specific training.](#) The following presents an overview of the emergency response training.

General emergency response training of TSD unit ERO personnel includes training on the ICP EP/RCRA CP which covers the following topics:

- Spill Control Plan

HWMA/RCRA PART B PERMIT  
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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: ~~February 12, 2016~~

At WMF-1617 and WMF-1619 air from the storage and treatment units is drawn through HEPA filters that remove particles in the exhaust air. From the exhaust plenums, the filtered exhaust air is discharged to a manifold duct. For high activity waste as required, operations can use the manifold to direct the exhaust air through another filter bank and out through the stack.

At WMF-698, all wastes to be stored in the container storage areas will be stored in closed containers in order to minimize the release of hazardous constituents.

A container holding hazardous or mixed waste must always be closed during storage. At WMF-1617 and WMF-1619, opening of containers will only be performed for treatment, to add/remove waste, sort, segregate, or for sampling for verifying waste acceptance criteria. Containers of solid hazardous and/or mixed wastes may be consolidated into other DOT/UN containers for storage. Approved procedures and DOT/UN rules are used in conjunction with guidelines listed in 40 CFR 264, Appendix V, to determine compatibility or incompatibility of materials before consolidation is performed into approved containers for storage.

#### **F-5. Prevention of Reaction of Ignitable, Reactive, and Incompatible Wastes**

##### **F-5a. Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Waste [IDAPA 58.05.01.012 and 58.05.01.008; 40 CFR 270.14(b)(9) and 264.17(a)]**

Container storage of wastes will not be limited to non-liquid, physically solid waste forms. Waste matrices will be evaluated by INL facility personnel for free liquids prior to acceptance into the container storage units, and any wastes containing free liquids will be stored within drum storage secondary containment pans. The liquids will be treated through absorbent addition on the sorting table in the RA or in the DPSs.

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, AK documentation, and a review confirming the hazardous waste numbers associated with each IDC are included in the permit.



1 Wastes with the RCRA characteristics of ignitability (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 are 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.

9 ~~The waste streams to be stored and treated within WMF-698, WMF-1617 and WMF-1619 have~~  
10 ~~completed characterization as detailed in the characterization reports in Attachment 2. The waste streams~~  
11 ~~to be stored and treated were also evaluated in accordance with the “Chemical Compatibility Evaluation~~  
12 ~~of Wastes for the Advanced Mixed Waste Treatment Project” (RPT-ESH-014). No issues of ignitability~~  
13 ~~or reactivity have been identified. Compatibility determinations are made based on the waste~~  
14 ~~characterization data prior to acceptance of containers. Based on the compatibility evaluation,~~  
15 ~~treatment/storage operations will not intermix wastes that are incompatible. The evaluations will be~~  
16 ~~placed in the facility operating record. Aerosol cans and roaster oxides are not accepted into the RWMC~~  
17 ~~RCRA units.~~

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: ~~June 8, 2017~~

AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION	COMPLIANCE METHODOLOGY
<p><b>G-2 Emergency Coordinators</b> <b>40 CFR 264.52(d) and 264.55</b></p> <p>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><b>G-2 Emergency Coordinators</b></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"> <li>Shokes, Joel <u>S.</u>, 175 Abraham St., Chubbuck, ID 83202. Home/<u>Cell</u> Phone: <u>208-241-2625</u><del>4930</del>; <del>Cell Phone: 241-2625</del>; Work Phone: <del>557-7311</del><u>208-533-0424</u></li> <li>Fogarty, Mike <del>F. ehael</del>, 4019 Nathan Dr., Idaho Falls, ID 83404. Home Phone: <u>208-542-1372</u>; Cell Phone: <u>208-680-0773</u>; Work Phone: <del>557-6508</del><u>208-533-6508</u></li> <li>Loftus, Mike <u>R.</u>, 1487 Mountain View, Apt. #1, Idaho Falls, ID 83402. Home Phone: <u>208-523-6532</u>; Cell Phone: <u>208-270-9775</u>, Work Phone: <u>208-557-7222</u><del>4</del></li> <li>Bottles, Jason, 970 N. Yellow Pine Dr., Idaho Falls, ID 83401. Home/<u>Cell</u> Phone: <u>208-406-9349</u>; <del>Cell Phone: 406-9349</del>; Work Phone: <del>557-6508</del><u>208-533-0608</u></li> <li>*Loftus, Nathan <u>N.</u>, <del>5446 N. 26<sup>th</sup> W.</del><u>1460 N. Marchesa Ln.</u>, Idaho Falls, ID 83402. Home Phone: <u>208-520-0856</u>; Cell Phone: <u>208-351-2085</u>; Work Phone: <del>557-6464</del><u>208-533-6464</u></li> <li><del>Langseth, R. D., 830 Grand Ave., Arco, ID 83213. Home Phone: 589-0338; Cell phone: 589-0338; Work phone: 533-0135</del></li> <li><del>Lopez, S. L., 2460 Brookcliff Dr., Idaho Falls, ID 83402. Home Phone: 521-2397; Cell Phone: 521-2397; Work Phone: 533-0585</del></li> <li><del>Southwick, J. L., 5117 Dagger Falls Dr., Idaho Falls, ID 83406. Home Phone: 522-2772; Cell Phone: 520-1484; Work Phone: 533-0412</del></li> <li><del>Breffe, B. F., 4025 Woodhaven Lane, Idaho Falls, ID 83404. Home Phone: 351-1660; Cell Phone: 351-1660; Work Phone: 533-0683</del></li> <li><del>*Loftus, Austin, 731 Emery Ln., Idaho Falls, ID 83401. Home Phone: 680-3060; Cell Phone: 680-3060; Work Phone: 557-7224</del></li> <li>*Griffith, Ted <u>P.</u>, 367 Ruth Ave., Idaho Falls, ID 83401. Home Phone: <u>208-522-3407</u>; Cell Phone: <del>569-6090</del><u>208-970-2470</u>; Work Phone: <del>557-6347</del><u>208-533-6347</u></li> <li>*Stacey, Brett <u>C.</u>, 2862 Bungalow Dr., Ammon, ID 83406. Home/<u>Cell</u> Phone: <del>528-8262</del>; <del>Cell Phone: 351-6986</del><u>208-881-7217</u>; Work Phone: <del>557-6327</del><u>208-533-6327</u></li> <li>*DeMott, Ryan <u>B.</u>, 2200 Riverstone Way, Idaho Falls, ID 83404. Home Phone: <u>208-881-1438</u>; Cell Phone: <u>208-821-6218</u>; Work Phone: <del>557-0965</del><u>208-533-3265</u></li> </ul> <p><u>*Alternate</u></p>

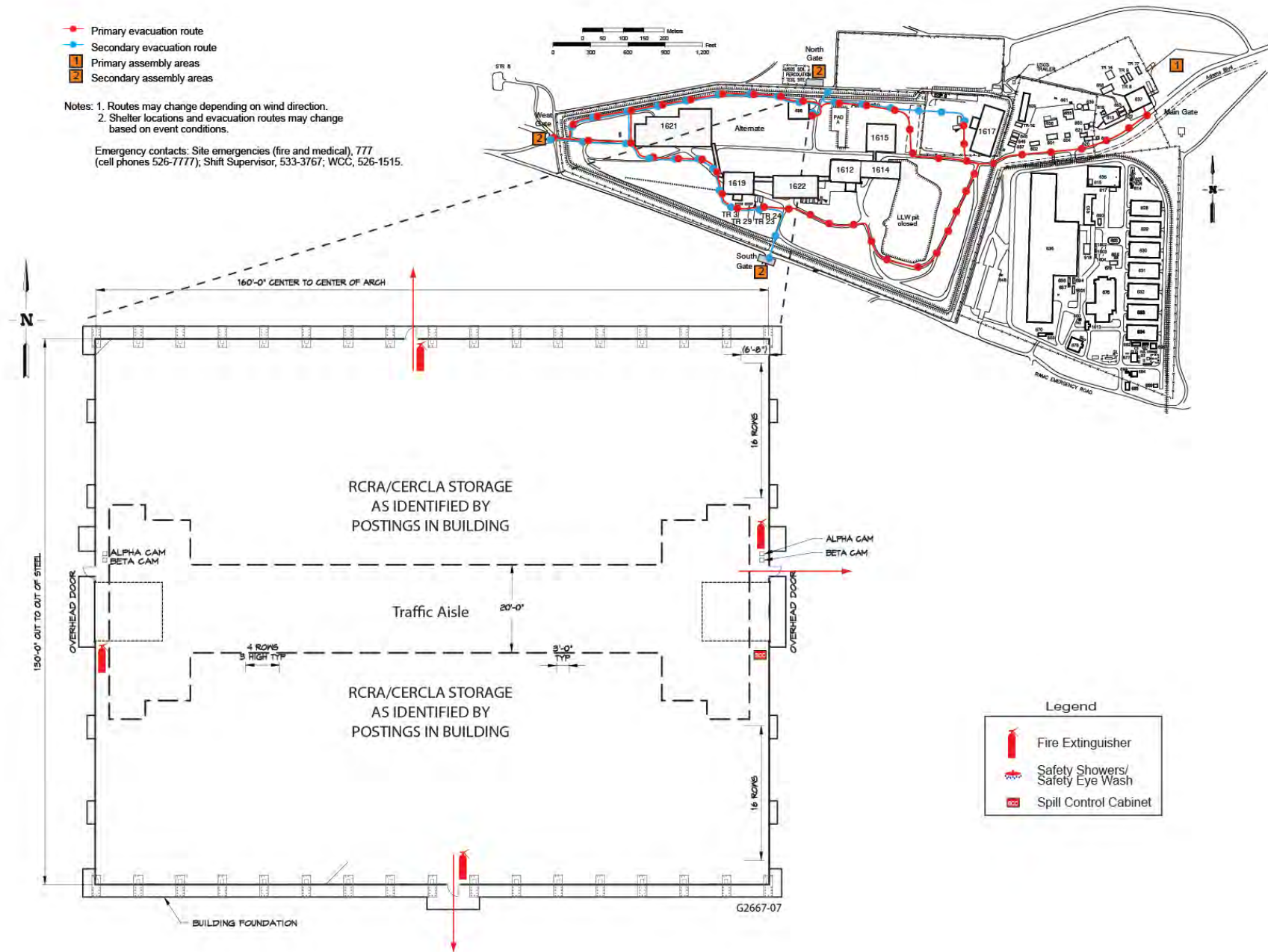
<u>AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION</u>	<u>COMPLIANCE METHODOLOGY</u>
	The business address (1580 Sawtelle Street, Idaho Falls, ID 83402), is the same for all the RWMC EAMs. The EAM list above is subject to change due to changes in personnel. The current list of EAMs is maintained in Appendix I of the RWMC Addendum to the ICP EP/RCRA CP.

AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION	COMPLIANCE METHODOLOGY
<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, 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. <u>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.</u></p> <p>The RWMC EAMs are responsible for:</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• 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</li> <li>• Delegating authority to the RWMC Emergency Response Organization (ERO), as well as the On-Scene Commander (OSC), as appropriate.</li> </ul> <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>

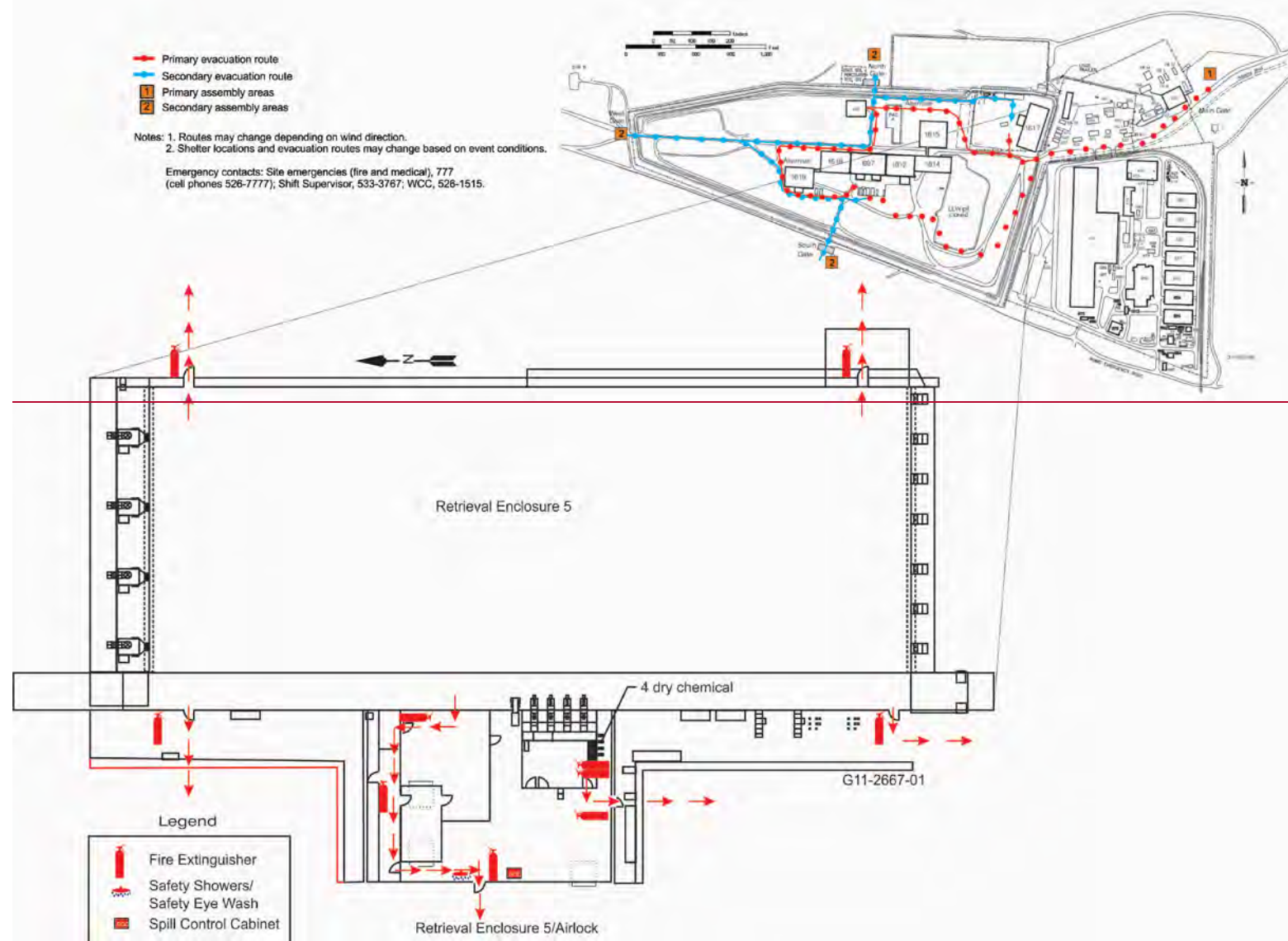
AT KEARNEY FORMAT SECTION REGULATORY REFERENCE/CITATION	COMPLIANCE METHODOLOGY
<p>This space was intentionally left blank.</p> <p><b>G-4c Assessment</b></p> <p><b>40 CFR 264.56(c) and 264.56(d)</b> 40 CFR 264.56(c) Concurrently, the emergency coordinator must assess possible hazards to human health or 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"> <li>(1) Observations of personnel involved in or discovering the situation.</li> <li>(2) Permitted units operating records.</li> <li>(3) Material Safety Data Sheets (MSDSs).</li> <li>(4) Monitoring performed by an Industrial Hygienist.</li> <li>(5) The INL Fire Department’s findings/reports.</li> </ol> <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><b>G-4c Assessment</b></p> <p><a href="#"><u>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.</u></a></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>

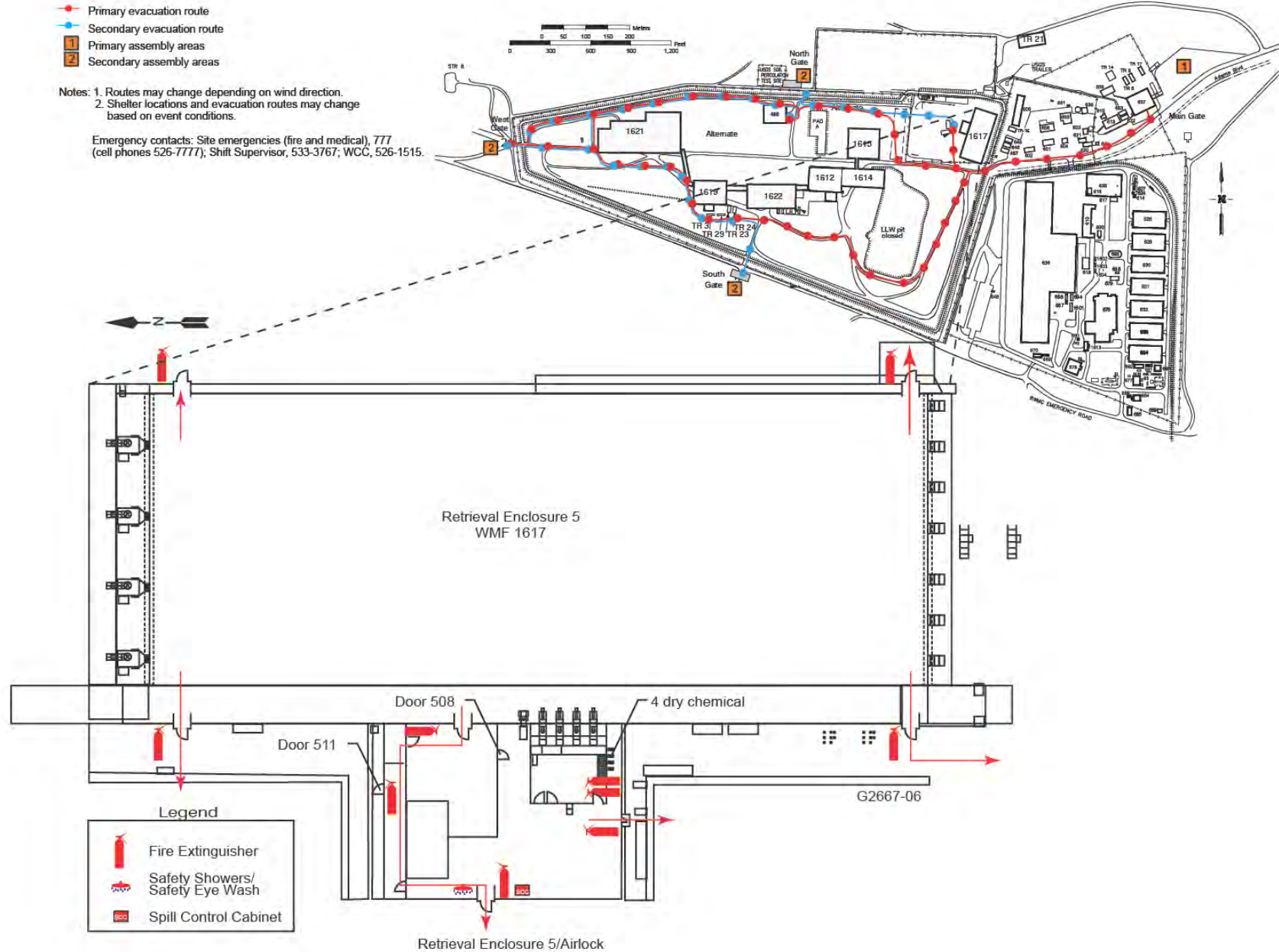






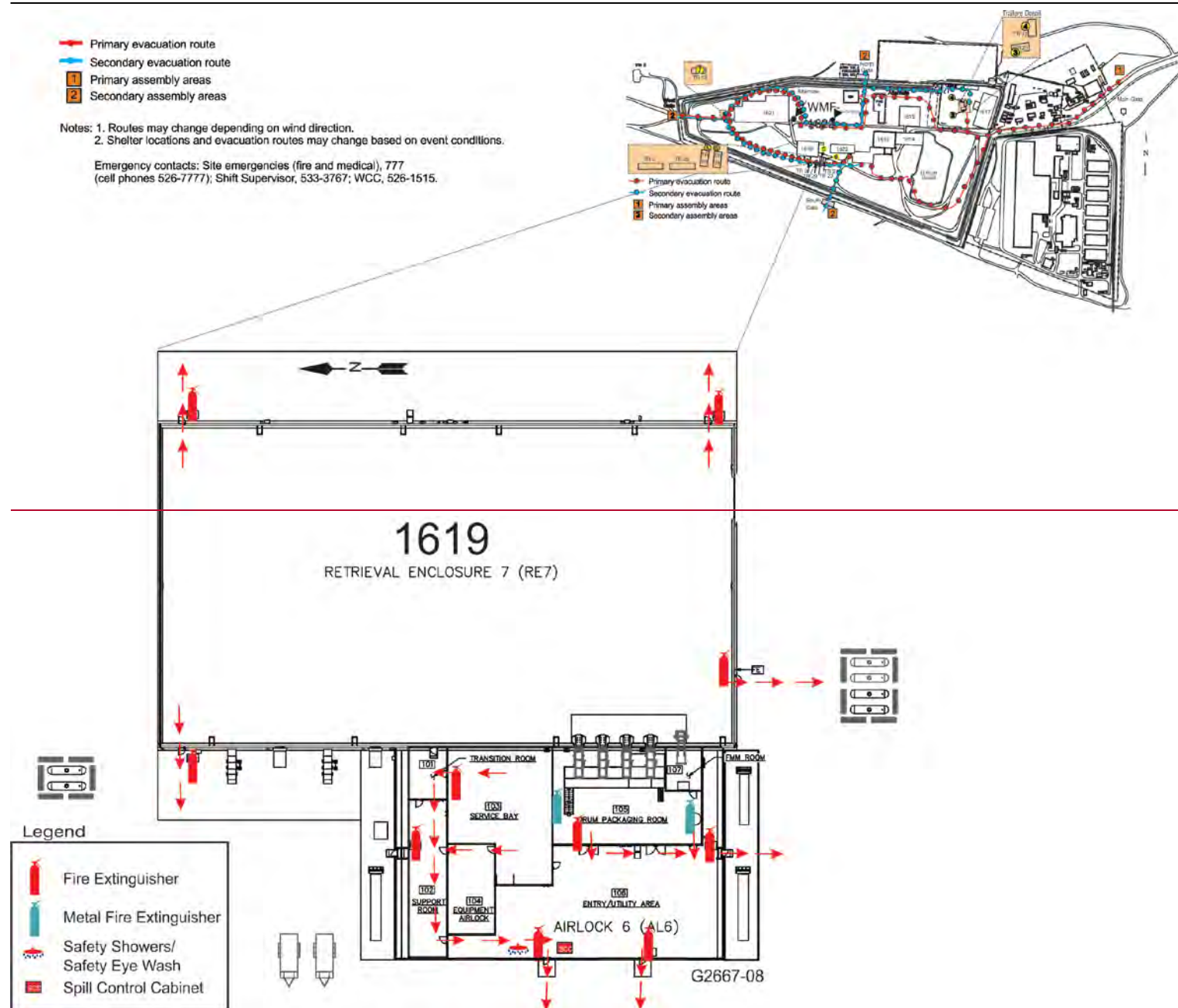
**Exhibit G-1. WMF-698 Evacuation Routes and Emergency Equipment.**





**Exhibit G-2. WMF-1617 Evacuation Routes and Emergency Equipment.**

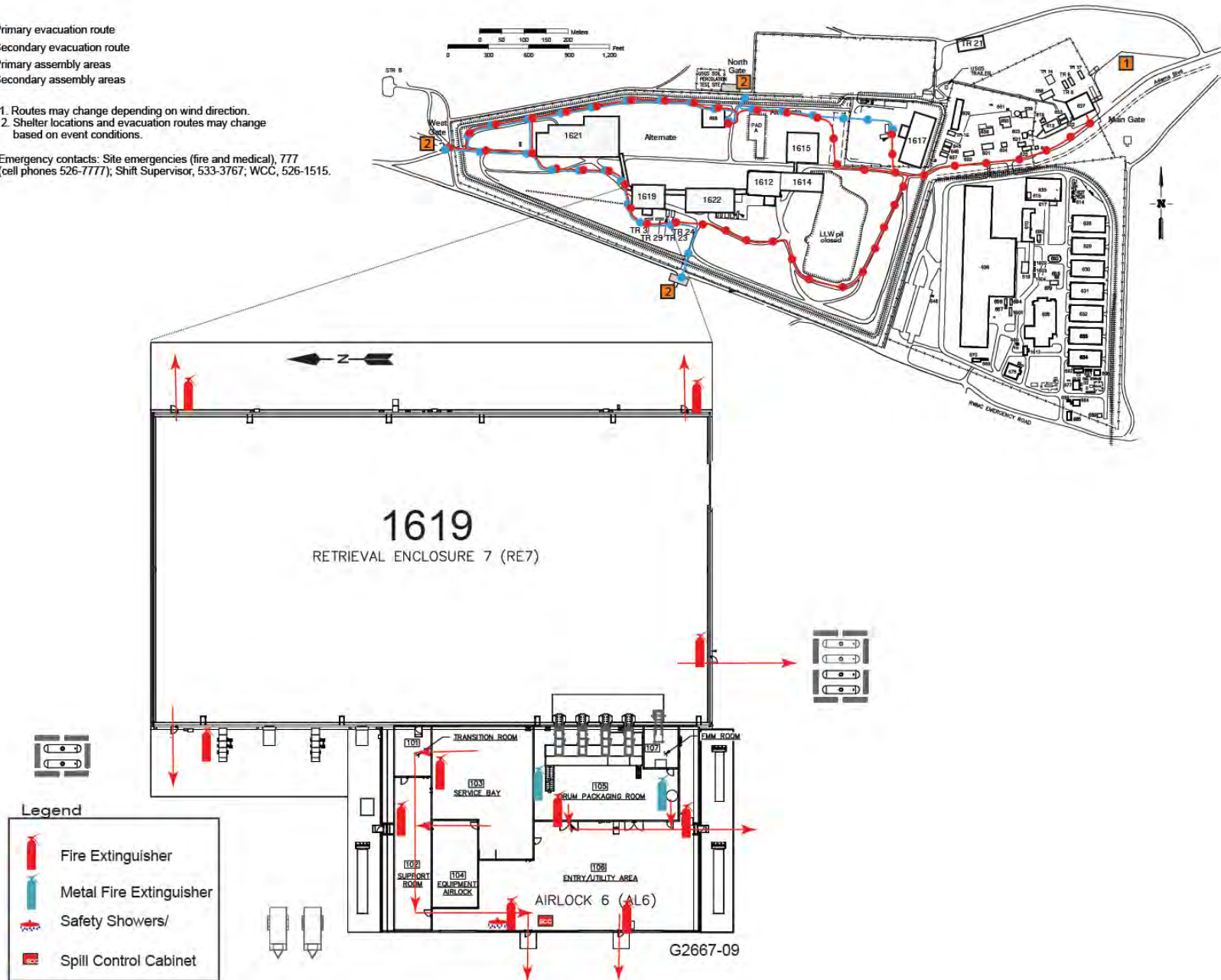




- Primary evacuation route
- Secondary evacuation route
- Primary assembly areas
- Secondary assembly areas

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-3. WMF-1619 Evacuation Routes and Emergency Equipment**

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: ~~June 8, 2017~~

## VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR BOOK 3 RWMC

<u>SUBMITTED</u>	<u>APPROVED</u>	<u>PMR CLASS</u>	<u>SUMMARY OF CHANGES</u>
<u>TBD</u>	<u>TBD</u>	<u>Class 2 PMR/RTA</u>	<p><u>The information contained in this PMR primarily provided for the following changes at the RWMC:</u></p> <ul style="list-style-type: none"> <li><u>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.</u></li> </ul> <p><u>Additional Changes include:</u></p> <ul style="list-style-type: none"> <li><u>Update Attachment 1, Sections B &amp; D, Facility and Process Description to:</u> <ul style="list-style-type: none"> <li><u>Add an additional Outside Storage Area to the North of WMF-1619,</u></li> <li><u>Update all applicable Exhibits as applicable/necessary</u></li> <li><u>Provide for additional characterization and waste acceptance controls for receiving waste to be processed through SRP in WMF-1619,</u></li> <li><u>Remove the WMF-1619 Retrieval Area Decontamination Tent as it was never constructed.</u></li> </ul> </li> <li><u>To update Attachment 2, Section C Waste Analysis Plan provide the description of the revised waste characterization and acceptance process.</u></li> <li><u>To update Attachment 4, Section F-2 Inspections to add CAMs as monitoring equipment and Appendix F-2 Examples of Inspection Forms (FRM-1809).</u></li> <li><u>To update Attachment 5 – Section H, Training to provide additional training for RWMC EAMs</u></li> <li><u>To update Attachment 6 – Sections F-3 through F-5 Procedures to Prevent Hazards to provide additional detail</u></li> </ul>



**VOLUME 18 - PERMIT MODIFICATION TRACKING LOG FOR  
BOOK 3 RWMC**

<u>SUBMITTED</u>	<u>APPROVED</u>	<u>PMR CLASS</u>	<u>SUMMARY OF CHANGES</u>
			<p><u>regarding the prevention of ignition or reaction of ignitable or reactive wastes</u></p> <ul style="list-style-type: none"> <li>• <u>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.</u></li> <li>• <u>Appendix I – Facility Drawings &amp; Exhibits to add revised drawings for the WMF-1617 Vestibule</u></li> <li>• <u>Other Administrative and Informational changes. Various changes were made to the permit to update information and correct typographical errors.</u></li> </ul>

## **APPENDIX I**

### **DRAWINGS AND EXHIBITS FOR WMF-1617, WMF-698 AND WMF-1619**

## APPENDIX I.

### DRAWINGS AND EXHIBITS FOR WMF-1617 AND WMF-698

DRAWING NUMBER	REVISION NUMBER	DRAWING DESCRIPTION
761186	3	Phase V of the Accelerated Retrieval Project WMF-1617 Retrieval Enclosure 5 and Airlock 5 Site Grading Plan
761187	2	Phase V of the Accelerated Retrieval Project WMF-1617 Retrieval Enclosure 5 and Airlock 5 Grading Sections and Details
761193	<del>2</del> <u>4</u>	Phase V of the Accelerated Retrieval Project WMF-1617 RE5/AL5 Building Elevations
761194	<del>3</del> <u>4</u>	Phase V of the Accelerated Retrieval Project WMF-1617 AL5 Airlock 5 Interior Wall Plan
761195	4	Phase V of the Accelerated Retrieval Project WMF-1617 AL5 Airlock 5 Interior Elevations
761196	5	Phase V of the Accelerated Retrieval Project WMF-1617 AL5 Airlock 5 Interior Elevations
761207	2	Phase V of the Accelerated Retrieval Project WMF-1617 Airlock 5 & Retrieval Enclosure 5 Foundation and Legend
761210	2	Phase V of the Accelerated Retrieval Project WMF-1617 Airlock 5 Foundation Slab Pan, Legend and Sections
762023	3	Phase V of the Accelerated Retrieval Project RE5/AL5 WMF-1617 Equipment Location Plan
762024	<del>2</del> <u>4</u>	Phase V of the Accelerated Retrieval Project WMF-1617 AL5 Airlock 5 Equipment Location Plan
762067	3	Phase V of the Accelerated Retrieval Project RE5/AL5 WMF-1617 DPS Fire Protection System Dry Chemical Diagram
762114	4	Phase V of the Accelerated Retrieval Project RE5/AL5 WMF-1617 RE5 Lighting Plan

<b>DRAWING NUMBER</b>	<b>REVISION NUMBER</b>	<b>DRAWING DESCRIPTION</b>
762115	3	PHASE V OF THE ACCELERATED RETRIEVAL PROJECT RE5/AL5 WMF-1617 AL5 LIGHTING PLAN
762141	3	PHASE V OF THE ACCELERATED RETRIEVAL PROJECT RE5/AL5 WMF-1617 FIRE ALARM PLAN
762142	<del>4</del> <u>5</u>	PHASE V OF THE ACCELERATED RETRIEVAL PROJECT RE5/AL5 WMF-1617 AIRLOCK 5 FIRE ALARM PLAN
762153	4	PHASE V OF THE ACCELERATED RETRIEVAL PROJECT WMF-1617 RETRIEVAL ENCLOSURE 5 DATA/DATA CCTV FLOOR PLAN
762154	<del>5</del> <u>6</u>	PHASE V OF THE ACCELERATED RETRIEVAL PROJECT RE5/AL5 WMF-1617 DATA/DATA CCTV AND INTERCOM FLOOR PLAN
177425	20	RWMC SDA FIREWATER PIPING PLOT PLAN
631228	3	RWMC TARGETED WASTE REMOVAL AND DISPOSITION PROJECT STORAGE ENCLOSURE VENTILATION PLAN, SECTIONS AND DETAIL
631225	4	RWMC TARGETED WASTE REMOVAL AND DISPOSITION PROJECT STORAGE ENCLOSURE PLAN
631233	5	RWMC TARGETED WASTE REMOVAL & DISPOSITION PROJECT WMF-698 STORAGE ENCLOSURE NORMAL POWER AND LIGHTING PLAN
631234	2	RWMC TARGETED WASTE REMOVAL AND DISPOSITION PROJECT STORAGE ENCLOSURE STORAGE ENCLOSURE GROUNDING PLAN
631237	2	RWMC TARGETED WASTE REMOVAL AND DISPOSITION PROJECT STORAGE ENCLOSURE FIRE ALARM PLAN
631238	2	RWMC TARGETED WASTE REMOVAL AND DISPOSITION PROJECT STORAGE ENCLOSURE FIRE ALARM SECTION AND DETAILS
631130	2	RWMC TARGETED WASTE REMOVAL AND DISPOSITION PROJECT STORAGE ENCLOSURE FOUNDATION PLAN

NOTES

1. THIS DRAWING IS A QUALITY LEVEL 3.
2. THIS STAMP APPLIES ONLY TO THE CURRENT AS-BUILT CONFIGURATION OF THE DRAWING.

REVISIONS	
REV	DESCRIPTION
1	CHANGED DWG TITLE INCORPORATED FDC 6342, 6849 & 6932 AS-BUILT AS OF 5/10/2012 SEE DRF-336389
2	INCRP FDC-8916, -9033, -9043, -9083 & -9091, AS-BUILT AS OF 9-5-2013, SEE DRF-340004
3	DRAWING ASSESSED AND VERIFIED AS-BUILT AS OF 2-21-2019, SEE DRF-362093
4	INCORPORATED FDC-12044, AS-BUILT AS OF 4-24-2019, SEE DRF-362759

WMF-1617

EAST ELEVATION

SCALE: 1/16"=1'-0"

WEST ELEVATION

SCALE: 1/16"=1'-0"

NORTH ELEVATION

SCALE: 1/16"=1'-0"

SOUTH ELEVATION

SCALE: 1/16"=1'-0"

X-REF DRAWING

762161 - RE5  
762163 - AIRLOCK 5

PROPANE HEATER OPENING  
2 PLACES

IONEX OPENING  
4 PLACES

AHU DUCT OPENING

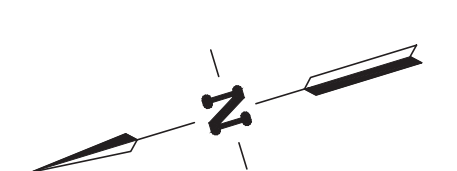
INLET & RELIEF DAMPER OPENING  
5 PLACES

WMF-1617

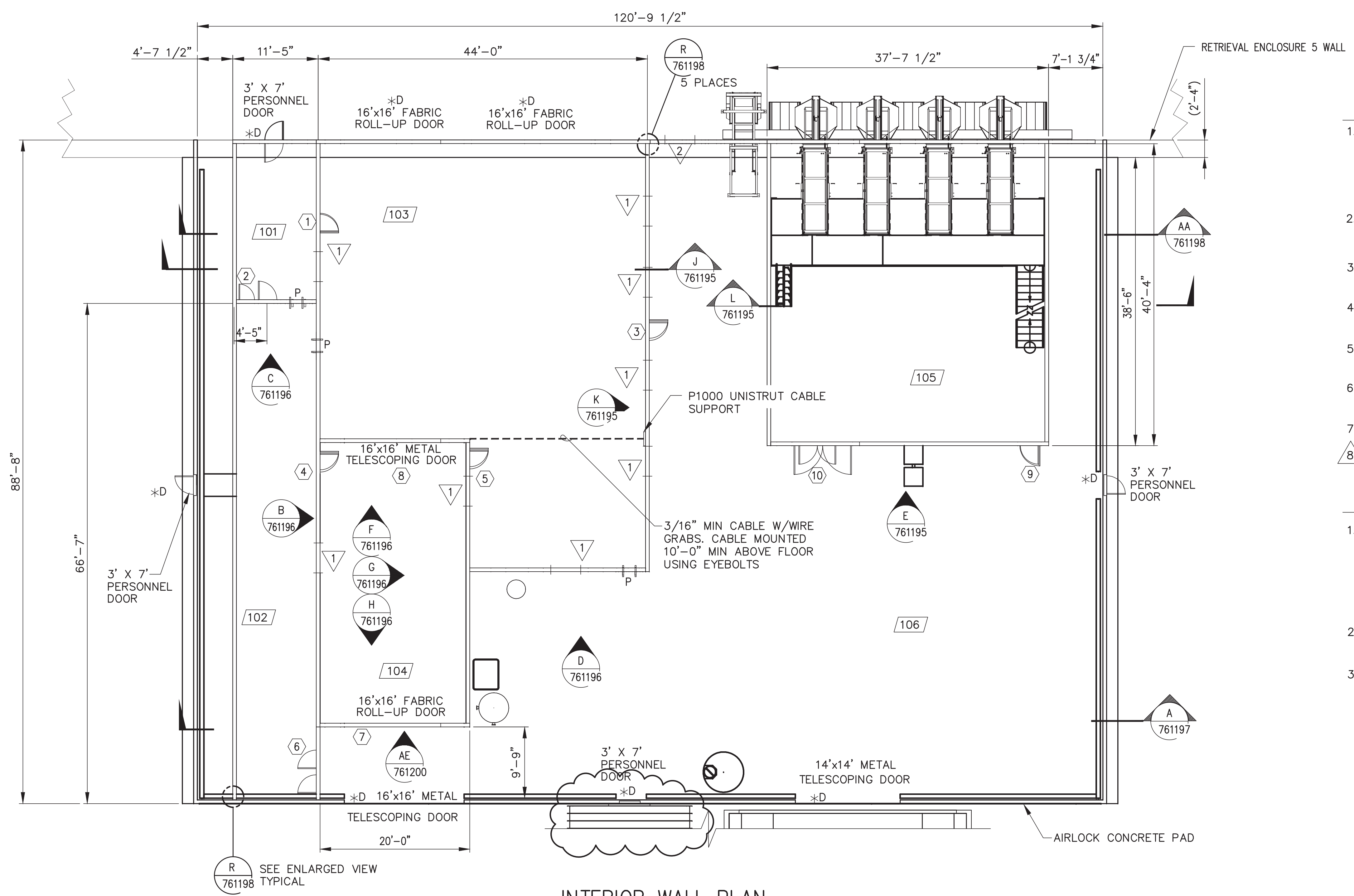
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ENG GROUP SUPERVISOR:	N/A	- -
DESIGN LEAD/AUTHORITY:	D.J. McGARY	Doug J. McGary Fluor Idaho 2019.05.02 14:35:31 -06'00'
DRAFTING CHECK/ EFFECTIVE DATE:	S.L. BERTHELSON	Shawn Berthelson Fluor Idaho 2019.05.02 15:08:59 -06'00'
PROJECT NUMBER:	30198	
DRF NUMBER:	326838	

Idaho Cleanup Project Core				<b>Fluor</b> IDAHO	
PHASE V OF THE ACCELERATED RETRIEVAL PROJECT WMF-1617 RE5/AL5					
BUILDING ELEVATIONS					
SIZE	INDEX CODE		NUMBER	DWG-- 761193	REV 4
D	AREA	TYPE	CL		
	098	1617	01		
			ORIG		
			136		
SCALE: NOTED				SHEET 1	OF 1





# RETRIEVAL ENCLOSURE 5



INTERIOR WALL PLAN  
SCALE: 1/4"=1'-0"

## LEGEND

- STRUCTURE PROVIDED BY RUBB BUILDING SYSTEMS
- ===== 6-INCH METAL STUD WALL AND METAL LINER(S)
- ROOM NUMBER. SEE ROOM FINISH SCHEDULE ON DRAWING 761199
- DOOR NUMBER. SEE DOOR SCHEDULE ON DRAWING 761199
- WINDOW NUMBER. SEE WINDOW SCHEDULE ON DRAWING 761199
- \*D DOOR, FRAME AND HARDWARE FURNISHED BY BUILDING MANUFACTURER

REVISIONS	
REV	DESCRIPTION
1	CHANGED DWG TITLE INCORPORATED FDC 6342, 6595, 6622, 6709, 6722, 6806, 6818, 6856, 6879, 6930, 6942, 6970 & 7055 AS-BUILT AS OF 5/10/2012 SEE DRF-336389
2	ADDED P.E. STAMP AND NOTE 8 INCORPORATED FDC-8686 AND 9111. AS-BUILT AS OF 9/5/2013 SEE DRF-340004
3	INCORPORATED FDC-10437, AS-BUILT AS OF 5-16-2017, SEE DRF-354575
4	INCORPORATED FDC-12044, AS-BUILT AS OF 4-24-2019, SEE DRF-362759

## NOTES

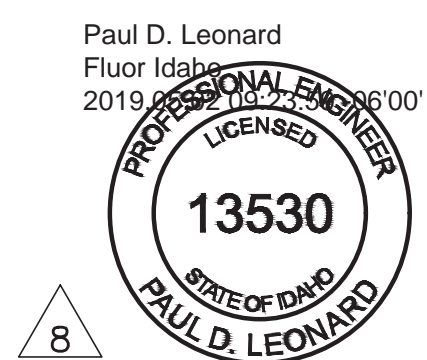
- METAL STUDS AND TRACKS ARE 20-GAGE OR HEAVIER AT 12" O.C. FOR WALLS OVER 15'-0". SHORTER WALLS ARE SPACED AT 16" O.C. FASTENERS USED TO ASSEMBLE METAL STUD WALLS SHALL BE AT A MINIMUM, NUMBER 8 MODIFIED TRUSS HEAD SCREWS. METAL STUD BASE TRACK FOR THE WALL BETWEEN RE5 AND AL5 IS FASTENED TO THE RE5 BASE BEAM WITH HILTI X-EDNI MX BALLISTIC POINT NAILS.
- TAPE CONTINUOUSLY ALL METAL WALL PANEL JOINTS AND SCREW HEADS BETWEEN THE RE AND THE AL SEE ROOM FINISH SCHEDULE, DRAWING 761199, FOR APPLICABLE METAL LINER PANEL.
- SUPPORT LEGS W/BASE PLATES THAT LAND ON EXISTING EMBEDDED PLATES ARE WELDED WITH 1/4" FILLET WELD ALL AROUND BASE PLATE.
- WELDED IN ACCORDANCE WITH AWS D1.1. VISUALLY INSPECTED WELDED PER REQUIREMENTS OF AWS D1.1. ACCEPTANCE CRITERIA PER TABLE 6.1.
- LADDERS AND STAIRS ANCHORED WITH 1/2"Ø ASTM A-307 MIN. ALL THREAD W/5" MIN. EMBEDMENT.
- DPS'S AND CATWALK SUPPORTS ANCHORED WITH 5/8"Ø ASTM A-307 MIN. ALL THREAD W/5" MIN. EMBEDMENT.
- THIS DRAWING IS A QUALITY LEVEL 3.
- THIS STAMP APPLIES ONLY TO THE CURRENT AS-BUILT CONFIGURATION OF THE DRAWING.

## GENERAL DESIGN NOTES

- GENERAL BUILDING DESIGN:
  - AIRLOCK 5 ENCLOSURE INCLUDES FRAMED WALLS:
    - a. 88'-0" x 120'-0" = 10,580 SF (INTERIOR DIMENSIONS)
    - b. CU F=180,000
  - RETRIEVAL ENCLOSURE STRUCTURE:
    - a. 380'-0" x 165'-0" = 62,700 SF
    - b. CU F=1,191,000
- DESIGN CODES:
  - a. GENERAL - INTERNATIONAL BUILDING CODE (IBC) 2006
  - b. STEEL/CONCRETE - SEE STRUCTURAL DRAWINGS AND NOTES
- OCCUPANCY:
  - a. OCCUPANCY CLASSIFICATION:
    - FACTORY INDUSTRIAL GROUP F-1, MODERATE HAZARD, INDUSTRIAL
  - b. BUILDING TYPE: II-B
  - c. NFPA 101, LIFE SAFETY CODE (LATEST EDITION):
    - SPECIAL PURPOSE INDUSTRIAL, ORDINARY HAZARD
- DESIGN LOADS (FOR INTERIOR WALLS ONLY):
  - a. NPH ..... PERFORMANCE CATEGORY 1
  - b. SNOW ..... NOT APPLICABLE s = 0.328g AND S<sub>1</sub> = 0.13g
  - c. WIND ..... NOT APPLICABLE
  - d. SEISMIC ..... PER IBC, SITE CLASS C, I=1.0, S

## X-REF DRAWING

762163 - AIRLOCK 5  
762164 - AIRLOCK 5 EQUIPMENT



SIGNATURES/DATES APPLY TO CURRENT RELEASE ONLY		SIGN AND DATE		Idaho Cleanup Project Core <b>Fluor</b> IDAHO		
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TECHNICAL CHECK:	N/A	-				-
ENG GROUP SUPERVISOR:	N/A	-				-
DESIGN LEAD/AUTHORITY:	D.J. McGARY	Doug J. McGary Fluor Idaho 2019.05.02 14:36:21 -0600				
DRAFTING CHECK/ EFFECTIVE DATE:	S.L. BERTHELSON	Shawn Berthelson Fluor Idaho 2019.05.02 15:09:15 -0600				
PROJECT NUMBER:	30198	SIZE INDEX CODE NUMBER D AREA TYPE CL ORIG DWG- 761194 REV 4 098 1617 00 136				
DRF NUMBER:	326838					
SCALE: NOTED				SHEET 1 OF 1		



NOTES:

1. SEE RWMC CONFIGURATION MANAGEMENT DATABASE FOR COMPONENT QUALITY LEVEL DESIGNATION.
2. THIS STAMP APPLIES ONLY TO THE CURRENT AS-BUILT CONFIGURATION OF THE DRAWING.

REVISIONS	
REV	DESCRIPTION
1	CHANGED DWG TITLE INCORPORATED FDC 6573, 6871, 6902 & 7155 AS-BUILT AS OF 5/2/2012 SEE DRF-336389
2	ADDED P.E. STAMP & NOTE 2. AS-BUILT AS OF 9/5/2013 SEE DRF-340004
3	DRAWING ASSESSED AND VERIFIED AS-BUILT AS OF 11-21-2017, SEE DRF-357971
4	INCORPORATED FDC-12044, AS-BUILT AS OF 4-24-2019, SEE DRF-362759

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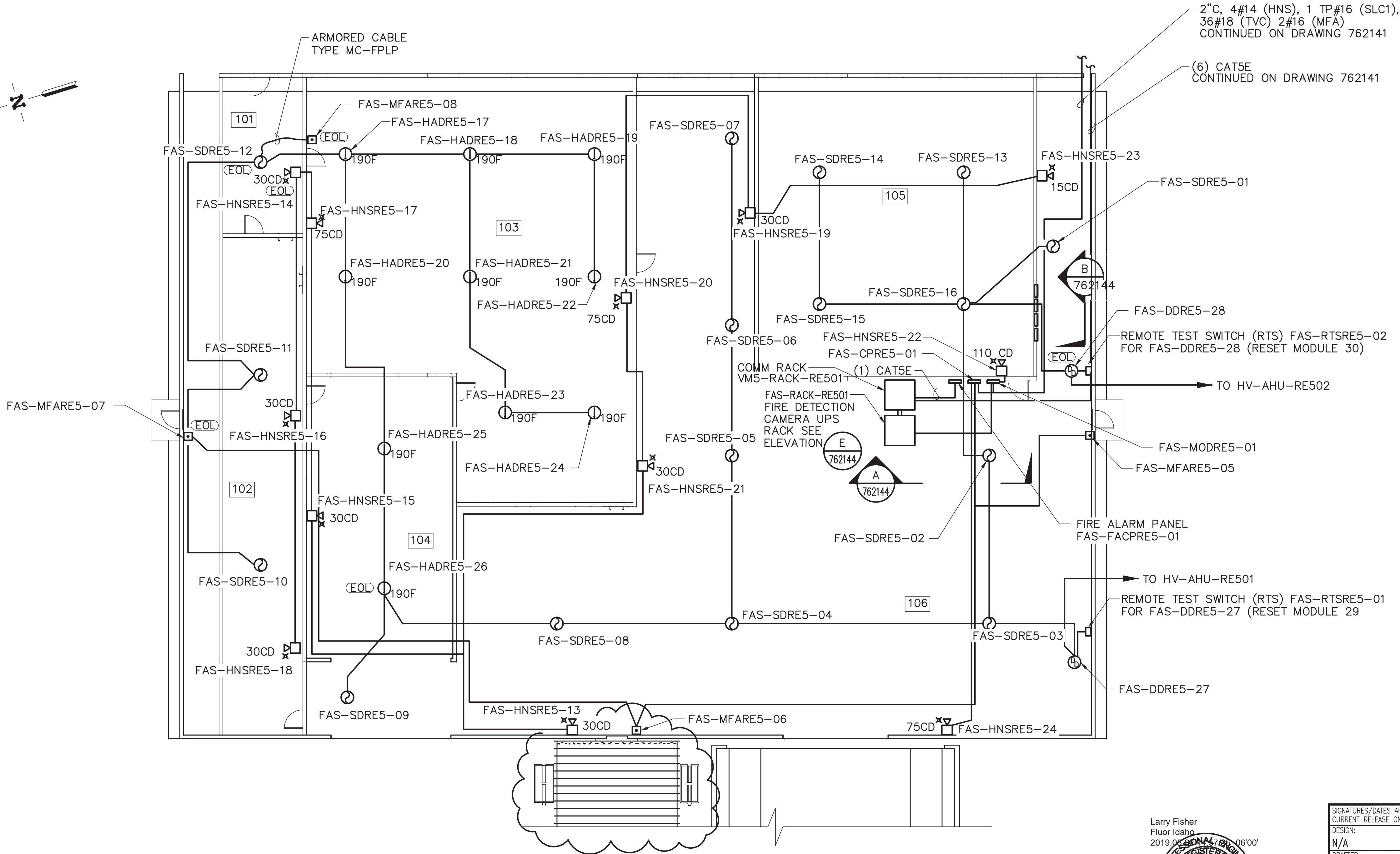
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NOTES:

1. ALL CONDUCTORS ARE IN 3/4"C UNLESS SHOWN OTHERWISE.
2. SEE RWMC CONFIGURATION MANAGEMENT DATABASE FOR COMPONENT QUALITY LEVEL DESIGNATION.
3. THIS DRAWING IS TO BE USED IN CONJUNCTION WITH DWGS:  
762145 FIRE ALARM CONTROL PANEL FAS-FACPRE5-01 CONNECTION DIAGRAM  
762146 FAS-CPRE5-01 WIRING DIAGRAM, FAS-DDRE5-27 & FAS-DDRE5-28 WIRING DIAGRAM.

THIS STAMP AND SIGNATURE VERIFIES THAT THE FIRE PROTECTION EQUIPMENT IS INSTALLED IN THE GENERAL LOCATIONS SHOWN ON THIS DRAWING.

REVISIONS	
REV	DESCRIPTION
1	CHANGED DWG. TITLE, INCORPORATED FDCS 6412, 6921 & 7173 AS-BUILT AS OF 10/13/2010 SEE DRF-331493
2	DRAWING ASSESSED AND VERIFIED AS-BUILT AS OF 5/7/2012 SEE DRF-336389
3	AS-BUILT AS OF 9-5-2013, SEE DRF-340004
4	INCORPORATED FDC-10120, AS-BUILT AS OF 4-6-2017, SEE DRF-354109
5	INCORPORATED FDC-12044, AS-BUILT AS OF 4-24-2019, SEE DRF-362759



AIRLOCK 5 FLOOR PLAN

SCALE 1/8" = 1'-0"

Larry Fisher  
Fluor Idaho  
2019.05.02 09:09:13 -0600



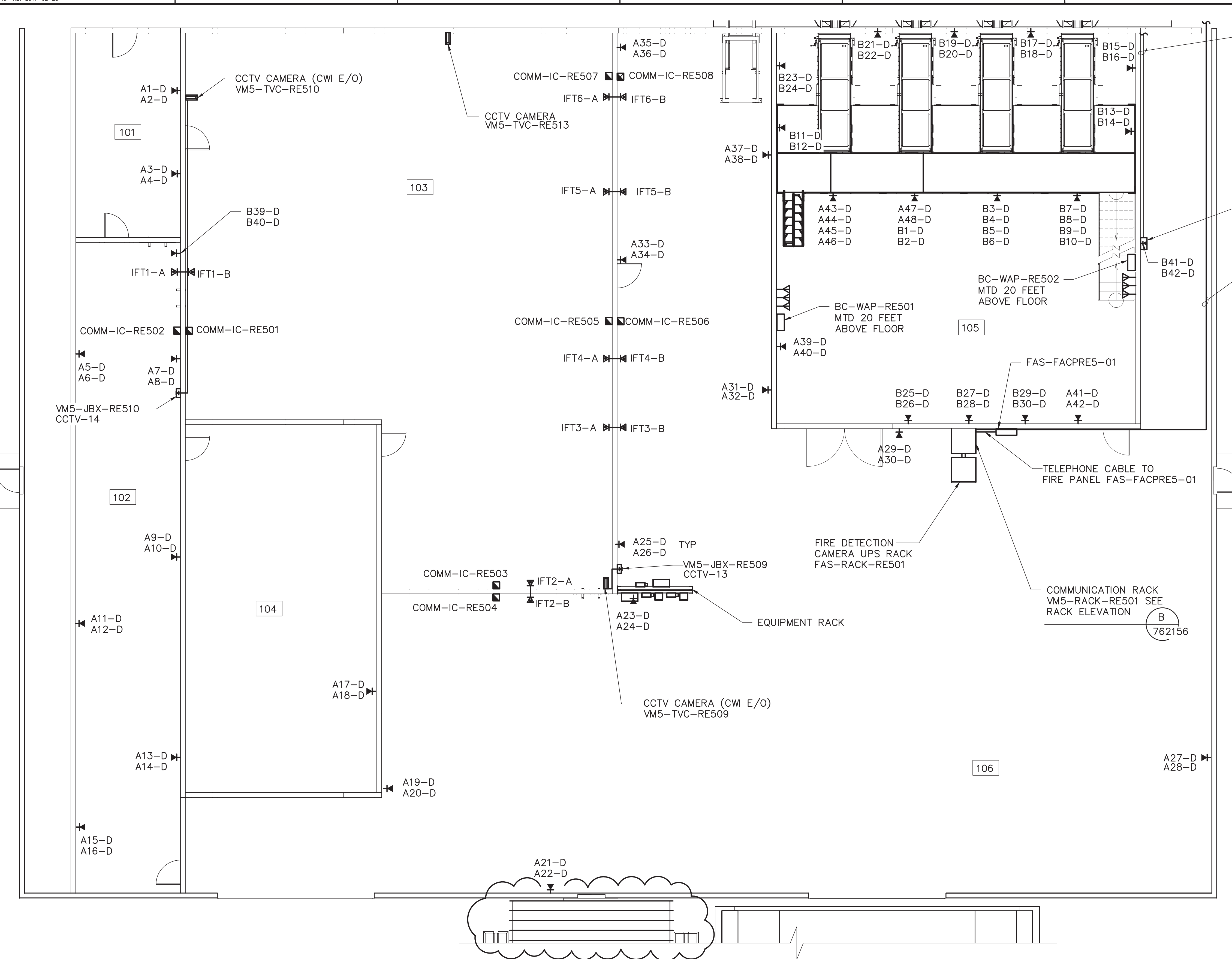
X-REF DRAWING

762163 - AIRLOCK 5

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TECHNICAL CHECK:	N/A	- -
ENG GROUP SUPERVISOR:	N/A	- -
DESIGN LEAD/AUTHORITY:	D.J. McGARY	2019.05.02 14:38:09 -0600
DRAFTING CHECK/EFFECTIVE DATE:	S.L. BERTHELSON	2019.05.02 15:08:23 -0600
PROJECT NUMBER:	30198	
DRF NUMBER:	327002	

Idaho Cleanup Project Core		Fluor IDAHO
PHASE V OF THE ACCELERATED RETRIEVAL PROJECT RE5/AL5 WMF-1617 AIRLOCK 5 FIRE ALARM PLAN		
SIZE	INDEX CODE NUMBER	DWG- 762142
D 098	1617 12 136	REV 5
SCALE: NOTED		SHEET 1 OF 1





REVISIONS	
REV	DESCRIPTION
1	CHANGED DWG TITLE, INCORPORATED FDCS 6871 & 6903 AS-BUILT AS OF 10/25/2010 SEE DRF-331557
2	DRAWING ASSESSED AND VERIFIED AS-BUILT AS OF 5/7/2012 SEE DRF-336389
3	INCORPORATED FDC-8657 AS-BUILT AS OF 10/25/2012 SEE DRF-337759
4	INCORPORATED FDC-8752, AS-BUILT AS OF 9-5-2013, SEE DRF-340004
5	INCORPORATED FDC-10570, AS-BUILT AS OF 10-13-2015, SEE DRF-347089
6	INCORPORATED FDC-12044, AS-BUILT AS OF 4-24-2019, SEE DRF-362759

NOTES:

1. SEE RWMC CONFIGURATION MANAGEMENT DATABASE FOR COMPONENT QUALITY LEVEL DESIGNATION.
2. THIS STAMP APPLIES ONLY TO THE CURRENT AS-BUILT CONFIGURATION OF THE DRAWING.

## LEGEND

- DATA/DATA OUTLET
- IFTx-x INSTRUMENT FEED THRU OUTLET
- INTERCOM UNIT CLEAR-COM #KB-701
- INTERCOM UNIT CLEAR-COM #KB-701 AND POWER SUPPLY, #PS-702
- CCTV CAMERA
- CCTV JUNCTION BOX
- OMNI-DIRECTIONAL HIGH-GAIN ANTENNA

## LAST NO. USED

DATA/DATA	A48-D
DATA/DATA	B42-D
DATA	CCTV-14

SIGNATURES/DATES APPLY TO CURRENT RELEASE ONLY		SIGN AND DATE		<div>Idaho Cleanup Project Core</div> <div><b>Fluor</b> IDAHO</div>			
DESIGN: N/A	- -						
DRAFTER: B.L. SCOTT	Barry L. Scott Fluor Idaho 2019.05.02 09:08:57 -0600'			<div>PHASE V OF THE ACCELERATED RETRIEVAL PROJECT RE5/AL5 WMF-1617 DATA/DATA, CCTV AND INTERCOM FLOOR PLAN</div>			
TECHNICAL CHECK: N/A	- -						
ENG GROUP SUPERVISOR: N/A	- -						
DESIGN LEAD/AUTHORITY: D.J. McGARY	Doug J. McGary Fluor Idaho 2019.05.02 14:39:46 -0600'						
DRAFTING CHECK/ EFFECTIVE DATE: S.L. BERTHELSON	Shawn Berthelson Fluor Idaho 2019.05.02 15:07:58 -0600'						
PROJECT NUMBER: 30198				DWG-- 762154		REV 6	
DRF NUMBER: 327002				SCALE: NOTED		SHEET 1 OF 1	


# AIRLOCK 5 FLOOR PLAN

SCALE:  $3/16'' = 1'-0''$

## X-REF DRAWINGS

762163 - AIRLOCK 5  
762164 - AIRLOCK 5 EQUIPMENT

Larry Fisher  
Fluor Idaho  
2019.08.18 10:06:00



The seal is a circular emblem. The outer ring contains the text "PROFESSIONAL ENGINEER" at the top and "STATE OF IDAHO" at the bottom. Inside this ring, the name "LARRY D. FISHER" is written in a curved path. In the center of the seal, the license number "6878" is prominently displayed.

$$\triangle 2$$

## **ATTACHMENT B**



September 23, 2019

CCN 324233

Distribution

NOTIFICATION OF A CLASS 2 PERMIT MODIFICATION REQUEST AND REQUEST FOR TEMPORARY AUTHORIZATION FOR THE IDAHO NUCLEAR TECHNOLOGY AND ENGINEERING CENTER AND RADIOACTIVE WASTE MANAGEMENT COMPLEX LOCATED ON THE IDAHO NATIONAL LABORATORY, EPA ID NO. ID4890008952

Dear Citizen:

The U.S. Department of Energy Idaho Operations Office and Fluor Idaho, LLC, formally referred to as the Permittee, are submitting a Class 2 permit modification request (PMR) with a request for temporary authorization (RTA) to the State of Idaho, Department of Environmental Quality to modify the Hazardous Waste Management Act/Resource Conservation and Recovery Act Storage and Treatment Permit for the Idaho Nuclear Technology and Engineering Center and the Radioactive Waste Management Complex (RWMC) located on the Idaho National Laboratory.

This PMR/RTA for the RWMC addresses the process changes identified in the corrective actions and lessons learned from the April 2018 drum event at WMF-1617 and recovery waste processing activities to move the sludge repackaging process (SRP) from WMF-1617 to WMF-1619 at the RWMC. The Permittee is requesting an RTA to support continued RWMC operations to treat and ship existing legacy waste outside of the State of Idaho in support of the Settlement Agreement milestones.

These changes do not alter the ability of the Permittee to provide continued protection of human health and the environment.

A 60-day comment period has been established to provide comments on the PMR/RTA. The public comment period is announced through publication of the legal notice in the Idaho Falls *Post Register*. This comment period begins on September 21, 2019 and will end on November 19, 2019. All comments should be addressed to:

Idaho Department of Environmental Quality  
Attention: Mr. Brian English  
1410 North Hilton  
Boise, ID 83706

A public meeting regarding this PMR/RTA will be held in Conference Room #2 at the Idaho Falls Public Library, located at 457 W. Broadway, Idaho Falls, Idaho, on October 30, 2019, starting at 6:00 p.m. and ending at 8:00 p.m., or ending at 6:30 p.m. if members of the public do not attend by 6:30 p.m.

Following submittal to DEQ, a copy of the PMR/RTA will be placed in the INL Research Library Digital Repository for viewing 24 hours a day, 7 days a week at the following website:  
<http://inldigitallibrary.inl.gov>.

Additionally, if unable to access the website, a hardcopy of the PMR/RTA can be reviewed at the Idaho Falls Public Library. The hardcopy is located on the main floor of the library, behind the circulation/checkout desk. The Idaho Falls Public Library is located at 457 Broadway, Idaho Falls, Idaho. A copy of the Administrative Record that includes a copy of this request and supporting documentation is available for public viewing and copying at the Idaho Department of Environmental Quality at the Boise address listed above.

The Idaho Department of Environmental Quality contact person is Mr. Brian English. He may be reached at (208) 373-0425. The contact person for the Department of Energy, Idaho Operations Office is Ms. Nicole Hernandez. She may be reached at (208) 526-8949. The contact person for Fluor Idaho, LLC is Mr. Scott Reno. He may be reached at (208) 533-0391.

The Permittee's compliance history during the life of the permit being modified is available from the Agency contact person.

If you are no longer interested in receiving these notices or your address information has changed, please inform the Idaho Department of Environmental Quality so that the mailing list may be updated

Distribution

DEQ INL Mailing List  
G. Bright, DEQ  
B. L. English, DEQ



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2.	RON BONE 612 E 1450 N SHELLY ID 83274											
3.	SEN BERT BRACKETT IDAHO STATE LEGISLATURE 48331 THREE CREEK HWY FLAT CREEK RANCH ROGERSON ID 83302											
4.	BEATRICE BRAILSFORD SNAKE RIVER ALLANCE 217 JOHNSON AVE POCATELLO ID 83204											
5.	NICOLE BROOKS 357 STILLWATER CIRCLE IDAHO FALLS ID 83404											
6.	CHUCK BROSCIOUS ENVIRONMENTAL DEFENSE INSTITUTE PO BOX 220 TROY ID 83871-0220											
7.	SEN VAN BURTENSCHAW IDAHO STATE LEGISLATURE 1329 E 1500 N TERRETON ID 83450											
8.	ATTN SHELLEY SHAFFER BUTTE COUNTY COMMISSIONERS PO BOX 737 ARCO ID 83213-0737											
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2.	ALAN CARVO 270 LARIAT LANE IDAHO FALLS, ID 83404											
3.	MAYOR REBECCA CASPER CITY OF IDAHO FALLS PO BOX 50220 IDAHO FALLS ID 83405											
4.	CHAIR HOUSE ENVIRON ENERGY & TECH COM IDAHO STATE LEGISLATURE STATE CAPITOL BLDG BOISE ID 83720											
5.	CHAIR SENATE HEALTH & WELFARE COM IDAHO STATE LEGISLATURE STATE CAPITOL BLDG BOISE ID 83720											
6.	BILL CHISOLM 19073 E HWY 30 BUHL ID 83316											
7.	CLERK OF THE COURT BINGHAM CO COMMISSIONERS 501 N MAPLE ST #205 BLACKFOOT ID 83221-1700											
8.	MARK CLOUGH INL OVERSIGHT PROGRAM 1410 N HILTON BOISE ID 83706											

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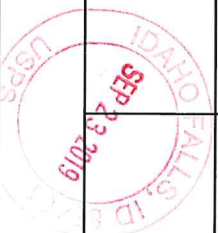
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2.	SEN MIKE CRAPO US CONGRESS 251 E FRONT ST #205 BOISE ID 83702-7309											
3.	PAM CUNNINGHAM 3609 CREEKSIDE DR IDAHO FALLS ID 83404											
4.	JORDAN DAVIES NORTHWIND GROUP 1425 HIGHAM ST IDAHO FALLS ID 83402											
5.	ANNE DUSTIN 1668 PARKWOOD ST IDAHO FALLS ID 83402											
6.	ENVIRONMENTAL SCIENCE & RESEARCH FOUNDATION 4276 E 300 N RIGBY ID 83442-5507											
7.	SANDY FISHER US FISH & WILDLIFE SERVICE 4425 BURLEY DR STE A CHUBBUCK ID 83202											
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2.	GREATER IDAHO FALLS CHAMBER OF COMMERCE 365 RIVER PKWY IDAHO FALLS ID 83402-3315											
3.	MIKE GREENE 295 HARVEST RUN IDAHO FALLS ID 83404											
4.	SUSAN HANSON SHO-BAN CERCLA/RCRA PROGRAM PO BOX 306 FORT HALL ID 83203											
5.	ED HART 2492 HAROLD IDAHO FALLS ID 83402											
6.	SEN LEE HEIDER IDAHO STATE LEGISLATURE 1631 RICHMOND DR TWIN FALLS ID 83301											
7.	MIKE HEISER 528 10TH ST IDAHO FALLS ID 83404-5068											
8.	NICOLE HERNANDEZ US DOE IDAHO OPS OFFICE 1955 FREMONT AVE MS 1216 IDAHO FALLS ID 83415											
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2.	HW PERMIT COORDINATOR DEQ WASTE MGMT DIV 1410 N HILTON 2ND FLR BOISE ID 83706-1255											
3.	IDAHO CONSERVATION LEAGUE PO BOX 844 BOISE ID 83701-0844											
4.	IDAHO DEPT OF FISH & GAME 4279 COMMERCE CIR IDAHO FALLS ID 83401-1726											
5.	IDAHO DEPT OF WATER RESOURCES 900 N SKYLINE STE A IDAHO FALLS ID 83402											
6.	INL SITE CITIZENS ADVISORY BOARD C/O LISA ALDRICH PORTAGE INC 1075 S UTAH AVE STE 200 IDAHO FALLS ID 83402											
7.	CURTIS JACKSON KIFI CHANNEL 8 1915 N YELLOWSTONE HWY IDAHO FALLS ID 83402											
8.	JIM JACKSON 330 N KAREY LN IDAHO FALLS ID 83402-5436											
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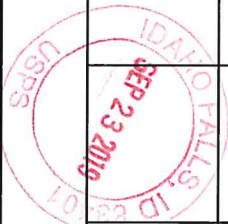
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3.	JAY KUNZE ISU COLLEGE OF ENGINEERING CAMPUS BOX 8060 POCATELLO ID 83209											
4.	CHARLES LEMMON KMYT-TV 1100 N BLUE LAKES BLVD TWIN FALLS ID 83301											
5.	SEN DAVE LENT IDAHO STATE LEGISLATURE 1186 CAYSIE CIRCLE IDAHO FALLS ID 83402											
6.	THE HONORABLE BRAD LITTLE GOVERNOR OF IDAHO PO BOX 83720 BOISE ID 83720-0034											
7.	MAYOR JACQUES MARCOTTE CITY OF ARCO PO BOX 196 ARCO ID 83213											
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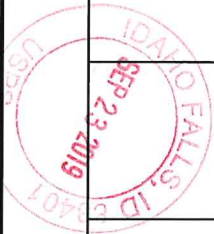
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2.	CHRISTIAN MAUPIN 878 CAMINO CONSUELO SANTA FE NM 87507-5081											
3.	MAYOR CITY OF TWIN FALLS PO BOX 1907 TWIN FALLS ID 83303-1907											
4.	BARBARA MCCULLOUGH US EPA REGION 10 1200 SIXTH AVE STE 155 SEATTLE WA 98101											
5.	SEN DEAN MORTIMER IDAHO STATE LEGISLATURE 7403 1ST E IDAHO FALLS ID 83404											
6.	ERICK NEHER DEQ IDAHO FALLS RO 900 N SKYLINE STE B IDAHO FALLS ID 83402											
7.	KIRK NIELSEN 2321 HENRYANNA AVE IDAHO FALLS ID 83404-8010											
8.	BRUCE OLENICK DEQ POCATELLO RO 444 HOSPITAL WAY #300 POCATELLO ID 83204											
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2.	PAGE LOCAL 2-652 UNION PO BOX 50659 IDAHO FALLS ID 83405											
3.	LINDA PARKINSON TWIN FALLS PUBLIC LIBRARY 201 4TH AVE E TWIN FALLS ID 83301											
4.	SEN JIM PATRICK IDAHO STATE LEGISLATURE 2231 E 3200 N TWIN FALLS ID 83301											
5.	ROBERT PENCE INL CITIZENS ADVISORY BOARD 1955 N FREMONT AVE MS 1203 IDAHO FALLS ID 83415-1203											
6.	KIM RAFFERTY IDAHO FALLS PUBLIC LIBRARY 457 W BROADWAY IDAHO FALLS ID 83402											
7.	DR PETER RICKARDS 2672 E 4000 N TWIN FALLS ID 83301-0123											
8.	SEN JAMES RISCH US CONGRESS 350 N 9TH ST STE 302 BOISE ID 83702											
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Value

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1.

TIM SAFORD  
1119 LAKEVIEW DR SW  
BEMIDJI MN 56601

2.

STEVEN SCHMID  
1071 IRVING ST  
IDAHO FALLS ID 83401

3.

JOHN SCHMIDT  
8862 MAPLE GROVE LN  
POCATELLO ID 83201

4.

ED SCHRIEVER  
IDAHO DEPT OF FISH & GAME  
600 S WALNUT  
BOISE ID 83712

5.

DARYL SIEMER  
12N 3167E  
IDAHO FALLS ID 83402

6.

MIKE SIMON  
DEQ AQ PERMIT MGR  
1410 N HILTON  
BOISE ID 83706

7.

JULIE SIMPSON  
NEZ PERCE TRIBE-ERWM  
PO BOX 365  
LAPWALL ID 83540

8.

REP MIKE SIMPSON  
US CONGRESS  
802 W BANNOCK ST STE 600  
BOISE ID 83702-5843

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2.	TIM SOLLE 2380 RENDEZVOUS RD IDAHO FALLS ID 83402-3893											
3.	SEN MICHELLE STENNETT IDAHO STATE LEGISLATURE PO BOX 475 KETCHUM ID 83340											
4.	SUPERINTENDENT CRATERS OF THE MOON PO BOX 29 ARCO ID 83213											
5.	SUE SWITZER DEQ TWIN FALLS RO 650 ADDISON AVE W STE 110 TWIN FALLS ID 83301											
6.	JOHN TANNER JR 2175 TASMAN DR IDAHO FALLS ID 83404											
7.	TAMI THATCHER 10217 S 5TH E IDAHO FALLS ID 83404											
8.	MARK TORF TORF ENVIRONMENTAL MGMT 3459 E BOULDER HEIGHTS DR BOISE ID 83712											
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Affix Stamp Here  
(If issued as a  
certificate of mailing,  
or for additional  
copies of this bill)  
Postmark and  
Date of Receipt

Article Name

Addressee (Name, Street, City, State, & ZIP Code)

Postage

Fee

Handling  
Charge

Actual Value  
if Registered

Insured  
Value

Due Sender  
if COD

DC  
Fee

SC  
Fee

SH  
Fee

RD  
Fee

RR  
Fee

1.

ROGER TURNER  
307 N BUCHANAN AVE  
POCATELLO ID 83204

2.

JIM WERNITZ  
US EPA IDAHO OPS OFFICE  
950 W BANNOCK ST STE 900  
BOISE ID 83702-6138

3.

PENNY WEYMILLER  
SHOSHONE-BANNOCK TRIBES  
PO BOX 306  
FORT HALL ID 83203-0306

4.

LAURA YOUNG  
2962 CHAPARRAL DR  
IDAHO FALLS ID 83404-7272

5.

6.

7.

8.

Total Number of Pieces  
Listed by Sender 84

Total Number of Pieces  
Received at Post Office

Signature



See Privacy Act Statement of Reverse

## **ATTACHMENT C**



# Proof of Publication

## The Post Register

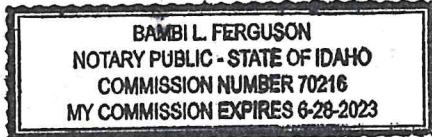
State of Idaho  
County of Bonneville

I, Dawn Giannini or ~~Collins Crapo~~, first being duly sworn, depose and say: That I am the Classified Manager, or ~~Processing Clerk~~ of The Post Company, a corporation of Idaho Falls, Bonneville County, Idaho, publishers of The Post Register, a newspaper of general circulation, published Tuesday through Sunday at Idaho Falls, Idaho; said Post Register being a consolidation of the Idaho Falls Times, established in the year 1890, The Idaho Register, established in the year 1880, and the Idaho Falls Post, established in 1903, such consolidation being made on the First day of November, 1931, and each of said newspapers have been published continuously and uninterrupted, prior to consolidation, for more than twelve consecutive months and said Post Register having been published continuously and uninterrupted from the date of such consolidations up to and including the last publication of notice hereinafter referred to.

That the notice, of which a copy is hereto attached and made a part of this affidavit, was published in said Post Register under ad number: **168405** for **1** consecutive (days) weeks, between **09/21/2019** and **09/21/2019**, and that the said notice was published in the regular and entire issue of said paper on the respective dates of publication, and that such notice was published in the newspaper and not in a supplement.

*Dawn Giannini*

Subscribed and sworn to before me, this 21st day of September 2019



*Bambi Ferguson*  
\_\_\_\_\_  
Notary Public  
My commission expires: 06/28/2023

\_\_\_\_\_ attached jurat \_\_\_\_\_

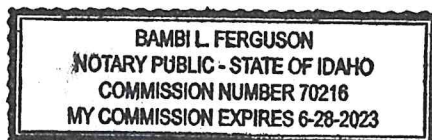
STATE OF IDAHO

ss.

COUNTY OF BONNEVILLE

Subscribed and sworn to before me, this 21st day of September 2019, before me, the undersigned, a Notary public for said state, personally appeared Dawn Giannini or ~~Collins Crapo~~, known or identified to me to be the person(s) whose name(s) is/are subscribed to the within instrument, and being by me duly sworn, declared that the statements therein are true, and acknowledged to me that he/she/they executed the same,

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.



*Bambi Ferguson*  
\_\_\_\_\_  
Notary Public for The Post Company  
Residing: Idaho Falls, Idaho  
Commission expires: 06/28/2023

repackage process (SRP) from WMF-1617 to WMF-1619. The Permittee is requesting an RTA to support continued RWMC operations to treat and ship existing waste outside of the State of Idaho in support of the Settlement Agreement milestones.

These changes do not alter the ability of the Permittee to provide continued protection of human health and the environment.

A 60-day comment period has been established to provide comments on the PMR/RTA. This comment period begins on the date of the publication of this notice, September 21, 2019 and will end on November 19, 2019. All comments should be addressed to:

**Idaho Department of Environmental Quality**  
**Attention: Mr. Brian English**  
**1410 North Hilton**  
**Boise, ID 83706**

A public meeting regarding this permit modification request will be held in Conference Room #2 at the Idaho Falls Public Library, located at 457 W. Broadway, Idaho Falls, Idaho, on October 30, 2019, starting at 6:00 p.m. and ending at 8:00 p.m., or ending at 6:30 p.m. if members of the public do not attend by 6:30 p.m.

Following submittal to the Idaho Department of Environmental Quality, a copy of the PMR/RTA will be placed in the INL Research Library Digital Repository for viewing 24 hours a day, 7 days a week at the following website:  
<http://indigitallibrary.inl.gov>.

Additionally, if unable to access the website, a hardcopy of the PMR/RTA can be reviewed at the Idaho Falls Public Library. The hardcopy is located on the main floor of the library, behind the circulation/checkout desk. The Idaho Falls Public Library is located at 457 Broadway, Idaho Falls, Idaho. A copy of the Administrative Record that includes a copy of this request and supporting documentation is available for public viewing and copying at the Idaho Department of Environmental Quality at the Boise address listed above.

The Idaho Department of Environmental Quality contact person is Mr. Brian English. He may be reached at (208) 373-0425. The contact person for the Department of Energy, Idaho Operations Office is Ms. Nicole Hernandez. She may be reached at (208) 526-8949. The contact person for Fluor Idaho, LLC is Mr. Scott Reno. He may be reached at (208) 533-0391.

The Permittees compliance history during the life of the permit being modified is available from the Agency contact person.

**Published: 9/21/2019(168405-96033)**

#### LEGAL NOTICE


Notice is hereby given that the U.S. Department of Energy, Idaho Operations Office and Fluor Idaho, LLC, collectively referred to as the Permittee, will formally submit to the State of Idaho, Department of Environmental Quality a Class 2 permit modification request (PMR) with a request for temporary authorization (RTA) on or about September 23, 2019. The proposed modification is to the Hazardous Waste Management Act/Resource Conservation and Recovery Act (HWMA/RCRA) Storage and Treatment Permit the Idaho Nuclear Technology and Engineering Center and the Radioactive Waste Management Complex (RWMC), located on the Idaho National Laboratory (Environmental Protection Agency Identification Number ID4890008952). The PMR/RTA is being submitted in accordance with Permit Condition I.D.4 and the Idaho Administrative Procedures Act 58.01.05.012 [Title 40 of the Code of Federal Regulations (CFR) 270.11(d), 40 CFR 270.30(k), and 40 CFR 270.42].

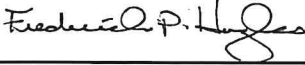
This PMR/RTA for the RWMC addresses the process changes identified in the corrective actions and lessons learned from the April 2018 drum event at WMF-1617 to move the sludge

## **ATTACHMENT D**

**18. Comments** (include item number for each comment)**ITEM 10.B. See Item 7 of the Hazardous Waste Permit Information Form OMB #2050-0024**

**19. Certification.** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11).**

Signature of legal owner or authorized representative 	Date (mm/dd/yyyy) 09/20/2019
Printed Name (First, Middle Initial, Last) Robert Boston	Title Manager, Department of Energy Idaho Operations Office
Email <a href="mailto:bostonrd@id.doe.gov">bostonrd@id.doe.gov</a>	

Signature of legal operator or authorized representative 	Date (mm/dd/yyyy) 09/18/2019
Printed Name (First, Middle Initial, Last) Frederick P. Hughes	Title Program Manager, Fluor Idaho, LLC.
Email <a href="mailto:Fred.Hughes@icp.doe.gov">Fred.Hughes@icp.doe.gov</a>	

**REGULATORY CERTIFICATION**  
**[IDAPA 58.01.05.012; 40 CFR 270.11(d) and 270.30(k)]**

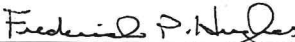
**Class 2 Permit Modification Request with a**  
**Request for Temporary Authorization for the**  
**Volume 18 INTEC and RWMC HWMA/RCRA**  
**Storage and Treatment Permit -**  
**September 2019**

EPA I.D. Number ID4890008952

The undersigned certifies as required per IDAPA 58.01.05.012 [40 CFR 270.11(d) and 270.30(k)] as follows:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator Signature

  
\_\_\_\_\_  
Frederick P. Hughes, Program Manager  
Fluor Idaho, LLC.

9/18/19  
\_\_\_\_\_  
Date



**REGULATORY CERTIFICATION**  
**[IDAPA 58.01.05.012; 40 CFR 270.11(d) and 270.30(k)]**


**Class 2 Permit Modification Request with a  
Request for Temporary Authorization for the  
Volume 18 INTEC and RWMC HWMA/RCRA  
Storage and Treatment Permit  
September 2019**

EPA I.D. Number ID4890008952

The undersigned certifies as required per IDAPA 58.01.05.012 [40 CFR 270.11(d) and 270.30(k)] as follows:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature

  
Robert Boston, Manager  
Department of Energy Idaho Operations Office

09/20/2019  
Date