Idaho National Engineering and Environmental Laboratory

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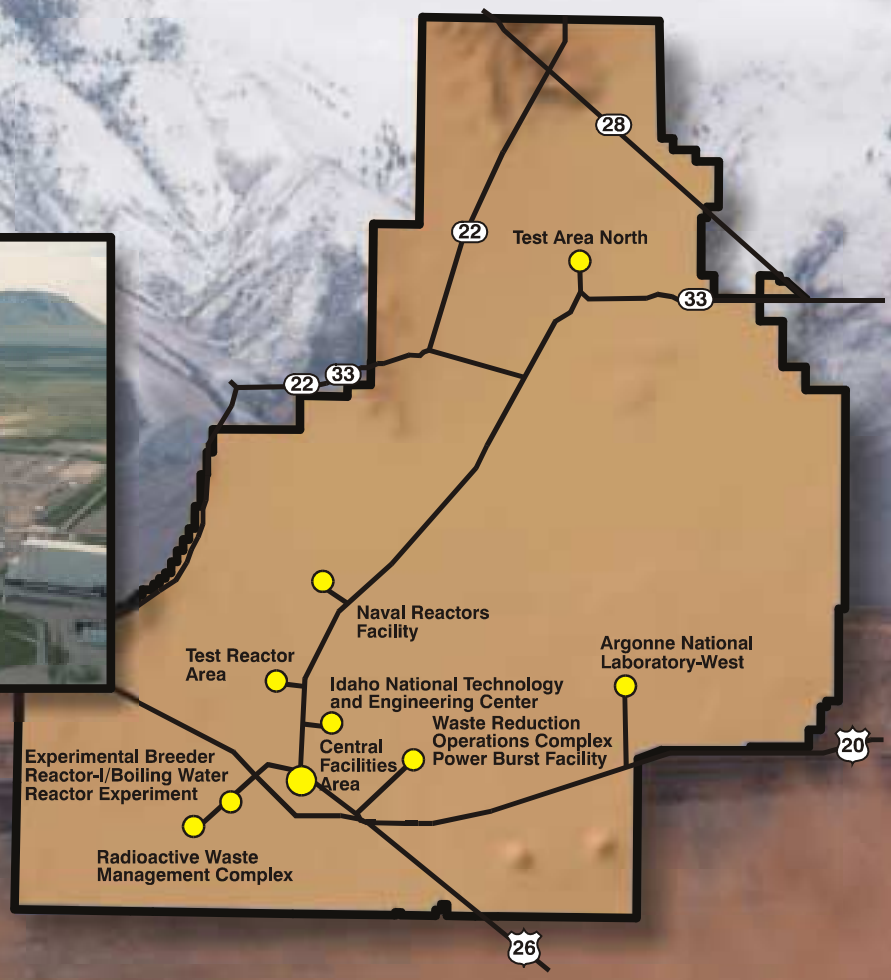
March 2001

Application for a Title V Operating Permit for the Idaho National Engineering and Environmental Laboratory



Volume IX Radioactive Waste Management Complex

INEEL
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INEEL/EXT-2000-01610

Application for a Title V Operating Permit for the Idaho National Engineering and Environmental Laboratory

Volume IX
Radioactive Waste Management Complex

Published March 2001

Idaho National Engineering and Environmental Laboratory
Environmental Affairs
Bechtel BWXT Idaho, LLC
Idaho Falls, Idaho 83415

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FOREWORD

Volume IX is one of a total set of ten volumes prepared for the Application for a Title V Operating Permit for the Idaho National Engineering and Environmental Laboratory.

The volumes making up the INEEL operating permit application are numbered as follows.

Volume I	Sitewide Standards and Information, and Operating Permit Application Guide
Volume II	Argonne National Laboratory-West
Volume III	Central Facilities Area
Volume IV	Idaho Nuclear Technology and Engineering Center
Volume V	Waste Reduction Operations Complex
Volume VI	Naval Reactors Facility
Volume VII	Test Area North
Volume VIII	Test Reactor Area
Volume IX	Radioactive Waste Management Complex
Volume X[a]	Radioactive Waste Management Complex, Advanced Mixed Waste Treatment Project, is forthcoming.

This February 2001 application is an updated revision of the July 1995 application (INEL-95/0155, Rev. 1) written to include, but not limited to:

- Changes to the Idaho Administrative Procedures Act Air Regulation;
- Updating the name of the Idaho Chemical Processing Plant to Idaho Nuclear Technology and Engineering Center (Volume IV);
- Cessation of various programs; and
- Addition of Volume X (which is forthcoming) that reflects BNFL, Inc. as the operator for the Advanced Mixed Waste Treatment Project at the Radioactive Waste Management Complex.

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a. Anticipated completion FY 2002 by BNFL, Inc.

CONTENTS

FOREWORD ..... IX-iii

ACRONYMS ..... IX-vii

SYMBOLS AND ABBREVIATIONS ..... IX-x

1. AREA-SPECIFIC INFORMATION IX-1

1.1 Facility Description IX-1

1.1.1 Facility Overview IX-2

1.2 RWMC Air Emission Source Listing IX-5

1.3 Not-Significant Radiological Emission Source Description IX-6

1.3.1 WMF-601, Radiological Control Field Office IX-6
1.3.2 Tritium Emissions from the RWMC Sewer System IX-6
1.3.3 WMF Waste Characterization Tent IX-6
1.3.4 WMF-615, Drum Venting Facility IX-7
1.3.5 RWMC-007-08, Vacuum Vapor Extraction System IX-7

2. SOURCE-SPECIFIC INFORMATION IX-9

2.1 Retrieval Enclosure and the Waste Storage Facility IX-9

2.1.1 General Description IX-9
2.1.2 Retrieval Enclosure and Emergency Generator IX-11

2.2 Internal Combustion Engines IX-43

2.2.1 General Description IX-43
2.2.2 Engine Specific Information IX-43

APPENDIX A – Environmental Quality Exemption Determination for Tritium Emissions from the RWMC Sewer System IX-A-1

APPENDIX B – Environmental Quality Exemption Determination for Waste Characterization Tent IX-B-1

APPENDIX C – Environmental Quality Exemption Determination for Drum Venting Facility IX-C-1

APPENDIX D – Notice of Change of Operator for the Transuranic Storage Area Retrieval Enclosure IX-D-1

APPENDIX E – Permit-Radioactive Waste Management Complex, PTC No. 023-00001–Transuranic Storage Area Retrieval Enclosure IX-E-1

FIGURES

IX-1-1. Location of the RWMC at the INEEL IX-3

IX-1-2. RWMC plot plan IX-4

IX-2-1. Plan view for Transuranic Storage Area IX-10

IX-2-2. Plan view for the TSA-RE IX-17

IX-2-3. State Operating Permit Application Form IX-18

IX-2-4. RE ventilation system process (WMF-636-001) IX-20

IX-2-5. Compliance Certification Form (method of compliance) IX-21

IX-2-6. State Operating Application Permit Form IX-27

IX-2-7. RE propane space heater (WMF-636-002) IX-29

IX-2-8. Compliance Certification Form (method of compliance) IX-30

IX-2-9. State Operating Permit Application Permit Form IX-31

IX-2-10. RE soil vacuum process (WMF-636-003) IX-33

IX-2-11. Compliance Certification Form (method of compliance) IX-34

IX-2-12. Plan view for TSA Emergency Generator (WMF-734-001) IX-37

IX-2-13. State Operating Application Permit Form IX-38

IX-2-14. TSA Emergency Generator process flow diagram (WMF-734-001) IX-40

IX-2-15. Compliance Certification Form (method of compliance) IX-41

TABLE

IX-1-1. Significant air emission sources at the RWMC IX-5

IX-1-2. Not-significant air emission sources at the RWMC IX-5

IX -1-3. Not-significant radionuclide emission sources IX-8

ACRONYMS

AEC	Atomic Energy Commission
AFBC	atmospheric fluidized bed combustion
AMWTF	Advanced Mixed Waste Treatment Facility
ANL-W	Argonne National Laboratory-West
ANSI	American National Standards Institute
AST	above-ground storage tank
ATR	Advanced Test Reactor
BBWI	Bechtel BWXT Idaho, LLC
BORAX	Boiling Water Reactor Experiment
BRC	below regulatory concern
CAM	continuous air monitor
CEMS	continuous emission monitoring system
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFA	Central Facilities Area
CFR	Code of Federal Regulations
CSSF	Calcined Solids Storage Facility
CGS	Calcine Grinder Setup
COMS	continuous opacity monitoring system
CPP	Chemical Processing Plant (now known as INTEC)
CTF	Contained Test Facility (formerly LOFT)
DEQ	Department of Environmental Quality
DOE	Department of Energy
DOE-ID	Department of Energy-Idaho Operations Office
DOG	dissolver off-gas
DOP	dioctyl phthalate
DOT	Department of Transportation
DU	depleted uranium
DVF	Drum Venting Facility
ECF	Expended Core Facility
EDE	effective dose equivalent
EIS	environmental impact statement
EPA	Environmental Protection Agency
ETR	Engineering Test Reactor
FAA	Federal Aviation Administration
FDP	Fluorinel Dissolution Process
FSA	Fuel Storage Area
HAP	hazardous air pollutant
HEPA	high-efficiency particulate air
HFEF	Hot Fuel Examination Facility (located at ANL-W)

HLLWE	high level liquid waste evaporator
HQ	headquarters
HVAC	heating, ventilation, and air conditioning
ICPP	Idaho Chemical Processing Plant (now known as INTEC)
IDAPA	Idaho Administrative Procedures Act
IET	Initial Engine Test
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
JP-4	jet propulsion 4
JP-8	jet propulsion 8
LET&D	Liquid Effluent Treatment and Disposal (Facility)
LLW	low-level radioactive waste
LOFT	Loss-of-fluid Test
M&O	management and operations
MCR	maximum continuous rating
MDF	Material Development Facility
MTR	Materials Test Reactor
MWSF	Mixed Waste Storage Facility
NA	not applicable
NESHAP	National Emission Standards for Hazardous Air Pollutants
NRF	Naval Reactors Facility
NWCF	New Waste Calcining Facility
OCM	organic composite material
PBF	Power Burst Facility
PCS	petroleum-contaminated soil
PEW	process equipment waste
PM	particulate matter
PM-10	particulate matter with a diameter less than 10µ
PREPP	Process Experimental Pilot Plant
PRF	Process Reclamation Facility
PSD	prevention of significant deterioration
PTC	permit to construct
RAL	Remote Analytical Laboratory
RAM	remote area monitor
RCRA	Resource Conservation and Recovery Act
RCT	radiation control technician
RDF	refuse-derived fuel
RE	Retrieval Enclosure
RESL	Radiological Environmental Sciences Laboratory
RFP	Rocky Flats Plant
RWMC	Radioactive Waste Management Complex
SAL	Special Analysis Laboratory

SDA	Subsurface Disposal Area
SES	Special Equipment Services
SMC	Specific Manufacturing Capability (Facility)
SPING	stack particulate, iodine, and noble gas
SRT	special response team
SWEPP	Stored Waste Examination Pilot Plant
TAN	Test Area North
TMI-2	Three Mile Island Unit 2
TRA	Test Reactor Area
TRAHC	Test Reactor Area Hot Cell
TRU	transuranic
TSA	Transuranic Storage Area
TSF	Technical Support Facility
TSP	total suspended particulates
U.S.C.	United States Code
UST	underground storage tanks
UTM	Universal Transverse Mercator
VMT	vehicle miles traveled
VOC	volatile organic compound
VOCNM	Volatile organic compound-non methane
VOG	vessel off-gas
WCF	Waste Calcining Facility
WERF	Waste Experimental Reduction Facility
WIPP	Waste Isolation Pilot Plant
WMF	Waste Management Facility
WROC	Waste Reduction Operations Complex
WRRTF	Water Reactor Research Test Facility
WSF	Waste Storage Facility
WWTF	Warm Waste Treatment Facilities

SYMBOLS AND ABBREVIATIONS

α	alpha
β	beta
β/γ	beta/gamma
Btu	British thermal unit
Ci	curie
Ci/mo	curie per month
Ci/yr	curie per year
Cm^2	square centimeters
CO	carbon monoxide
g	gram
gr	grain
hp	horse power
lb	pound
µm	micrometers (10^{-6} meters)
MBtu	million British thermal unit
mrem	thousandth of a roentgen equivalent man
NO_x	nitrogen oxide
SO_x	sulfurous oxide
v/v	volume per volume
w.c.	water column

1. AREA-SPECIFIC INFORMATION

1.1 Facility Description

The mission of the Radioactive Waste Management Complex (RWMC) is to safely dispose of low-level radioactive waste (LLW) and to temporarily store mixed transuranic (TRU) waste, which will be retrieved, nondestructively examined, and shipped to a permanent disposal facility such as the Waste Isolation Pilot Plant (WIPP) located in Carlsbad, New Mexico or in accordance with the Settlement Agreement between the State of Idaho, the Department of Energy (DOE), and the Department of Navy.

Disposal of solid radioactive waste began at the RWMC in 1952. In 1953, the Atomic Energy Commission (AEC) decided that solid radioactive waste from the Rocky Flats Plant (RFP) near Golden, Colorado, would be sent to the RWMC. Therefore, starting in 1954, RFP wastes containing TRU nuclides (principally plutonium) were buried in pits and trenches at the RWMC.

In 1960, the INEEL was designated as one of two national interim burial grounds for disposal of radioactive waste from any source. Although waste was received from many sources, the majority of TRU waste received at the INEEL was from the RFP. The national burial ground designation was discontinued in 1963 when commercial disposal facilities for radioactive waste became available.

In 1970, the AEC directed that all waste contaminated with TRU isotopes be segregated from other types of radioactive waste because of the radiotoxicity and long half-lives of the TRU material. The TRU waste was to be stored in a readily retrievable manner during an interim storage period of 20 years. When a Federal repository became available, this waste was to be retrieved and sent to the repository for long-term isolation. The DOE adopted an aboveground storage method at the Transuranic Storage Area (TSA) of the RWMC to meet the interim storage requirement. Although newly generated TRU mixed waste may still be accepted for storage, very little has been accepted since 1990; LLW continues to be accepted for permanent disposal.

Management of the INEEL stored TRU waste is performed per requirements negotiated by DOE and the United States Navy with the State of Idaho. These requirements are delineated in the Spent Nuclear Fuel Settlement Agreement negotiated to resolve legal issues concerning continued receipt of Naval and DOE spent nuclear fuel for management at INEEL facilities and the Consent Order to resolve RCRA compliance issues for storage of mixed TRU wastes. The conditions of the Settlement Agreement include initiating removal of TRU waste from Idaho no later than April 30, 1999 and completing the removal of 3,100 m^3 of waste no later than December 31, 2002. The Settlement Agreement also establishes conditions for the treatment and removal of all INEEL stored TRU waste by December 31, 2018 and is addressed by the AMWTF project.

1.1.1 Facility Overview

The RWMC, located in the southwest corner of the INEEL, is approximately 165 acres, has controlled access, and is surrounded by a chain-link fence. The RWMC is divided into four areas, which are as follows:

- **The Administrative Area** is located in the northeast section of the RWMC and consists of buildings and structures supporting RWMC administrative operations. These include office space and change rooms (for RWMC workers) and the security gate.

- **The Operations Area** consists of buildings that provide office space for operations and maintenance personnel, maintenance activities, and general operations support activities. The Operations Area serves as a buffer between the Administrative Area and the TSA and Subsurface Disposal Area (SDA).

- **The SDA** is a 97-acre tract of land located in the western portion of RWMC. It is dedicated to the permanent disposal of solid, low-level beta-gamma waste. The SDA contains pits, trenches, and soil vaults. TRU waste disposal was discontinued in 1970. Only low-level waste that is not "hazardous" per RCRA, has continued to be disposed of in the SDA in pits and vaults.

- **The TSA** is a 58-acre tract of land located in the southeast portion of the RWMC. The TSA is used for examination, segregation, certification, and interim storage of solid TRU waste. The TSA consists of earthen-covered storage pads that are enclosed in a retrieval enclosure building, the Stored Waste Examination Pilot Plant (SWEPP), waste storage buildings, TRUPACT loading buildings, and support facilities.

A diagram displaying the location of RWMC at the INEEL and a detailed plot plan outlining RWMC facility are located on the accompanying pages as Figures IX-1-1 and IX-1-2, respectively.

ANL-W	Argonne National Laboratory-West
CFA	Central Facilities Area
INTEC	Idaho Nuclear Technology and Engineering Center
NRF	Naval Reactors Facility
WROC	Waste Reduction Operations Complex
RWMC	Radioactive Waste Management Complex
TAN	Test Area North
TRA	Test Reactor Area

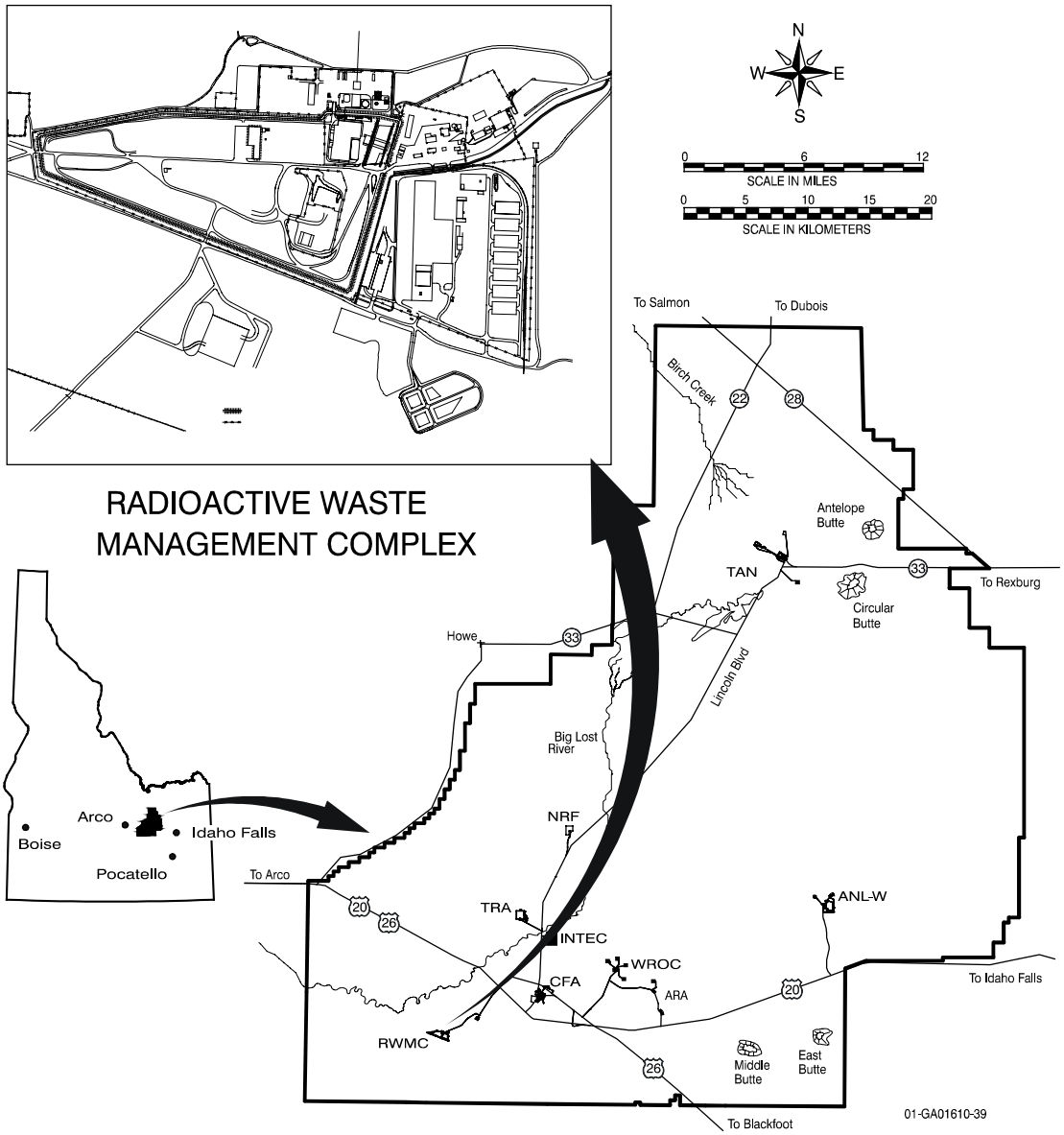

Figure IX-1-1. Location of the RWMC at the INEEL.

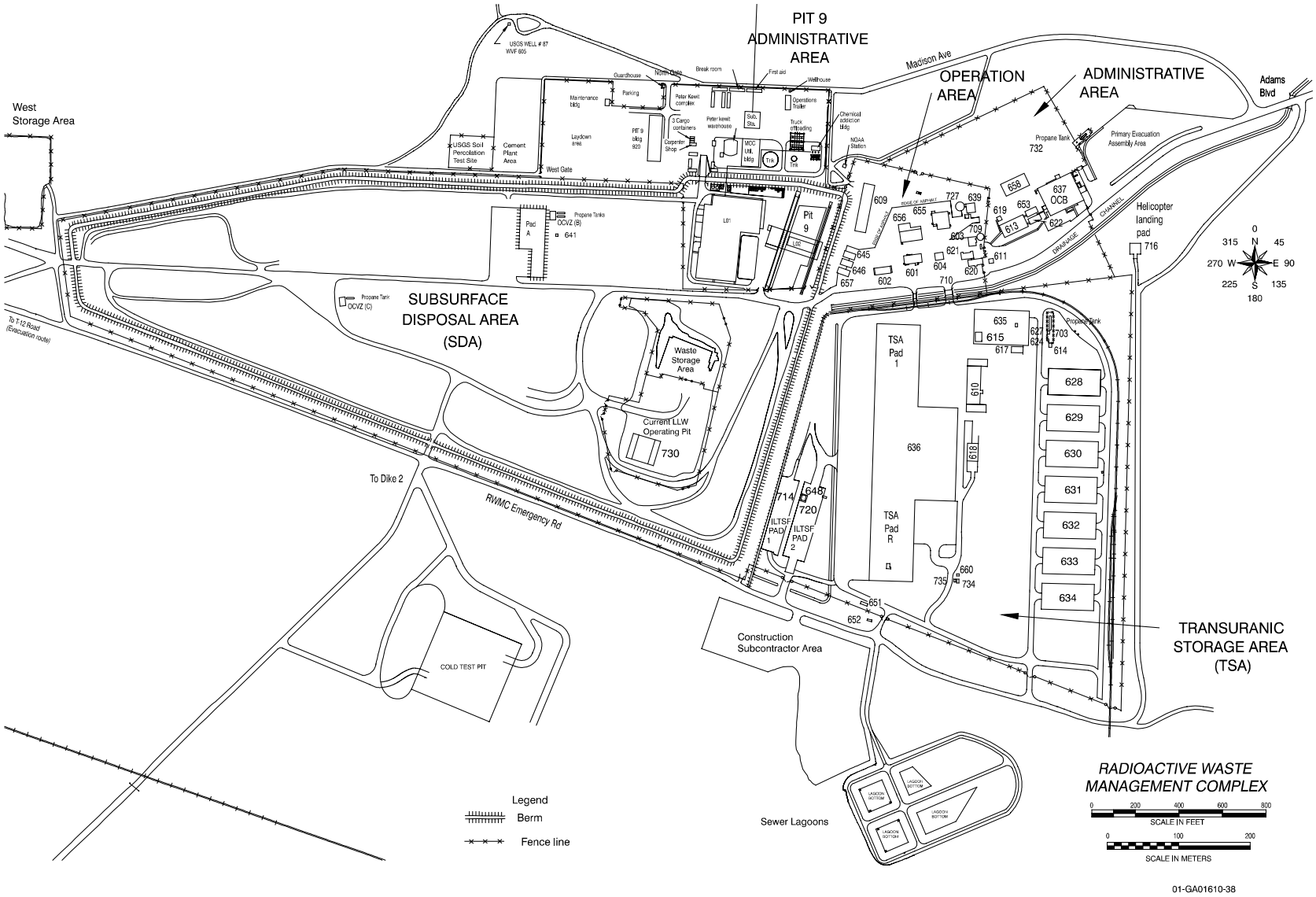

Figure IX-1-2. RWMC plot plan.

1.2 RWMC Air Emission Source Listing

Tables IX-1-1, IX-1-2, and IX-1-3 below provide a comprehensive listing of significant and not-significant air emission sources at the RWMC. Table IX-1-1 is a list of significant sources that are detailed in this application. Table IX-1-2 presents a list of not-significant non-radiological sources that meet the not-significant criteria described in Volume I, Section 3.10.2. Not-significant non-radiological sources will not be addressed in this permit application other than in this listing. Table IX-1-3 is a list of not-significant radiological sources that meet the not-significant criteria described in Volume I, Section 3.10.2.6. Source descriptions of not-significant radiological sources are presented in Section 1.3.

Table IX-1-1. Significant air emission sources at the RWMC.

Building No.	Building name	Vent/stack number	Source description	Comments
WMF-636[a]	Retrieval Enclosure	WMF-636-001, WMF-636-002 WMF-636-003	HVAC exhaust, propane heater and soil vacuum exhaust	Sources are included in PTC 023-00001
WMF-734	TSA emergency generator	WMF-734-001	810 hp emergency diesel generator	Source is included in PTC 023-00001
Multiple[b]	Multiple	Multiple	Internal Combustion Engines	These units are not specifically exempted by IDAPA 58.01.01.317

a. The Retrieval Enclosure (RE) [Waste Management Facility (WMF-636)] has three emission points: HVAC exhaust, a propane heater and a soil vacuum exhaust system. These sources are included in permit to construct (PTC) 023-00001, but are not yet operational. They are expected to begin operating in 2002.

b. This category includes multiple units at varying locations. They are addressed generally as a source category.

Table IX-1-2. Not-significant non-radiological air emission sources at the RWMC.

Building No.	Building name	ID# for Vent/Stack or Tank	Source description	Justification
WMF-610	SWEPP	WMF-610-004	Two 400,000 Btu/hr propane space heating furnaces	IDAPA 58.01.01.317.b.i.(5)
WMF-615	Drum Venting Facility	WMF-615-001	Headspace gas from transuranic waste drums	Director's Exemption (see Appendix C)
WMF-617	SWEPP Maintenance Facility	WMF-617-001	Fluorescent light tube crusher	IDAPA 58.01.01.317.a.i.(38)
WMF-628 through 633	Type II Storage Modules	WMF-628-001 WMF-629-001 WMF-630-001 WMF-631-001 WMF-632-001 WMF-633-001	Storage module ventilation exhaust stacks	IDAPA 58.01.01.317.a.i.(69)
WMF-635	Type 1 Storage Module	WMF-635-001	Waste storage and processing building ventilation exhaust	IDAPA 58.01.01.317.a.i.(69)
WMF-637	Operations Control Building	WMF-637-001	Two 1.2 MBtu/hr propane boilers	IDAPA 58.01.01.317.b.i.(5)
		WMF-637-002	1.2 MBtu/hr propane water heater	IDAPA 58.01.01.317.b.i.(5)
WMF-656	Wood shop	WMF-656-002	Sawdust cyclone	IDAPA 58.01.01.317.b.i.(30)
WMF-700	Subsurface Disposal Area, Active LLW Pits	WMF-700-005	fugitive dust source and asbestos disposal site[a]	See Volume I, Sections 5.7, 6.2 and 6.3

Building No.	Building name	ID# for Vent/Stack or Tank	Source description	Justification
WMF-731	Sewage Treatment Ponds	NA	4 Evaporative treatment ponds	IDAPA 58.01.01.317.b.i.(29)
WMF-639	NA	DFTK3901-7	250-gallon diesel AST	IDAPA 58.01.01.317.b.i.(30)
WMF-703	NA	97RWM00094	30,000-gallon propane AST	IDAPA 58.01.01.317.b.i.(4)
WMF-732	NA	97RWM00027	12,000-gallon propane AST	IDAPA 58.01.01.317.b.i.(4)
WMF-737	NA	GS-TK-DM0	270-gallon gasoline tank	IDAPA 58.01.01.317.b.i.(30)
WMF-735	NA	DF-TK-SA01	1,000-gallon diesel tank for standby generator 734-001	IDAPA 58.01.01.317.b.i.(30)
WMF-738	NA	LP-PTK-DM02	500-gallon propane tank	IDAPA 58.01.01.317.b.i.(4)
WMF	Waste characterization tent	NA	Movable HEPA filtered tent ventilation	Directors Exemption (See Appendix B)

a. 40 CFR 61 Subpart M applies to this source. See Volume I, Section 5.7.

1.3 Not-Significant Radiological Emission Source Description

1.3.1 WMF-601, Radiological Control Field Office

WMF-601 is a 3,200 ft^2 prefabricated metal, single-story building, constructed in 1976. The building contains radiation control technician offices, restrooms, change and locker rooms, and a health physics laboratory. WMF-601 contains one source, the health physics laboratory fume hood (WMF-601-009), which is used for preparing RWMC's operational and environmental samples for radiological analysis.

Samples (smear samples, continuous air monitor filter samples, soil and water samples) from health physics surveillance activities at the RWMC are temporarily stored and physically separated in the hood to obtain appropriately sized samples for counting. Water samples are stabilized and evaporated under a heat lamp in the hood. Occasionally, contaminated tools are decontaminated in the hood using wipes. No control equipment is required for this source; however, a HEPA filter is installed on the hood exhaust. No emission monitoring equipment is required for this source.

1.3.2 Tritium Emissions from the RWMC Sewer System

Due to past disposal practices at the INEEL, the groundwater underlying the RWMC is contaminated with tritium (HTO), which is water with tritium substituted for one or both hydrogen atoms. The concentration of HTO in the groundwater is below the state maximum contaminant levels for drinking water and below DOE's derived concentration guidelines for drinking water. The groundwater is used for the drinking water supply at the RWMC. Wastewater is discharged from the RWMC sewer system to evaporation ponds near the TSA. A Department of Environmental Quality exemption determination for tritium emissions from the RWMC sewer system is located in Appendix A.

1.3.3 WMF Waste Characterization Tent

The waste characterization tent consists of a movable HEPA filtered exhausted tent. Operational activities associated with the tent include sample collection, sample handling, characterization, sorting,

segregating, repackaging, and/or similar types of activities on characterized and previously uncharacterized waste. A Department of Environmental Quality exemption determination was issued for a 15 ft. wide by 25 ft. long Waste Characterization Tent. The original tent has since been replaced with a taller tent that is approximately 18 ft. wide by 20 ft. long. The operational activities associated with the replacement tent remain unchanged from the activities exempted in the DEQ exemption determination. A copy of the exemption determination is presented in Appendix B.

1.3.4 WMF-615, Drum Venting Facility

The Drum Venting Facility (DVF) at the TSA consists of a metal containment silo, which is fully enclosed within a rectangular-shaped pre-engineered metal building. The DVF was constructed in 1986 to vent drums of TRU waste to allow aspiration of potentially flammable concentrations of hydrogen and VOCs. In 1995, Type I Storage Facility (WMF-635) was constructed over the DVF, providing an additional layer of confinement.

Drums of TRU waste are brought into the DVF by a conveyor system. The conveyor allows transfer of drums from the outer building into the containment silo through containment doors. Individual drums are positioned at a punching and filter insertion machine and clamped into place. A hydraulically powered spindle punctures the drum lid to create a small-diameter hole that vents the drum interior. A sealing mechanism around the punch head seals the punch tool to the drum lid during the puncture. Two small vent lines attached to the punching tool head capture and divert released head-space gas to sampling and control systems. The spindle is then retracted and a particulate filter is screwed into the drum lid. The filter is designed to contain radionuclide particulate while allowing aspiration of internally generated gases during future container examination, storage and transportation.

Following venting and filter insertion, the drums are transferred to a turntable where they are surveyed for external radioactive contamination and cleaned if necessary. The drums are then transferred to other waste storage facilities in the TSA for aspiration, examination, or storage. Any gases expelled from the drums during the punching and filter insertion press are routed through a single HEPA filter before discharge to the WMF-615-001 stack.

The DVF process is operated remotely from a control room located adjacent to the containment silo. Although no emission control equipment is required for this source, the DVF and headspace gas ventilation is exhausted through a single HEPA filter. Emission monitoring equipment is not required for this source per the requirements of 40 CFR 61.93. A Department of Environmental Quality exemption determination for the Drum Venting Facility is located in Appendix C.

1.3.5 RWMC-007-08, Vacuum Vapor Extraction System

Under the Consent Order, organic contamination in the vadose zone was identified for a Remedial Investigation/Feasibility Study as Operable Unit 7-08. The vadose zone contains organic compounds that are primarily in the form of organic vapors, which have migrated from buried wastes in the pits and trenches at the SDA. The selected remedy was extraction and destruction of organic contaminant vapors in the vadose zone accompanied by monitoring the vadose zone and underlying aquifer. In January 1996, three thermal oxidizer units were deployed at the SDA as part of the vacuum vapor extraction system. Due to operational problems, one of the thermal oxidizer units was decommissioned in May 2000. In its place, a catalytic oxidizer is scheduled to be deployed in March 2001. Upon successful deployment of the catalytic oxidizer, the remaining two thermal oxidizer units will be replaced with catalytic units.

Table IX -1-3. Not-significant radiological air emission sources.

SOURCE ID	SOURCE DESCRIPTION
WMF 601-009	Laboratory Hood
WMF	Tritium Emissions from the RWMC Sewer System (see Appendix A)*
WMF	Waste Characterization Tent (see Appendix B)*
WMF 615-001	Drum Venting Facility (see Appendix C)*
RWMC-007-08	Vapor extraction units (mobile CERCLA units)
Various **	Diffuse Soils Contamination

* Department of Environmental Quality Exemption Determination.
** Refer to Annual NESHAP Report.

Table IX-1-3 above lists the not-significant radionuclide emission sources for RWMC. Not-significant sources meet the criteria described in IDAPA 58.01.01.317.b.i.30.

All the above sources do the following:

- Annual emission determinations,
- Periodic confirmatory monitoring to determine the need for continuous emission monitoring (point sources only),
- Keeping records of emission determinations and periodic confirmatory monitoring.
- Refer to Table II of the NESHAP annual report for description of effluent control equipment.

The annual radiological emissions from these sources are combined with all other radionuclide emissions from the INEEL to determine compliance with the 10 mrem/yr effective dose equivalent (EDE) as required in 40 CFR Part 61, Subpart H. The results are published in the INEEL National Emission Standard for Hazardous Air Pollutants - Radionuclides.

2. SOURCE-SPECIFIC INFORMATION

2.1 Retrieval Enclosure and the Waste Storage Facility

2.1.1 General Description

The current inventory of approximately 65,000 cubic meters (2.3 million ft^3) of contact-handled TRU waste is stored in the TSA in earthen-covered berms, or fabric covered stacks inside a Retrieval Enclosure building, or in RCRA-permitted storage buildings (see Figure IX-2-1). Contact-handled waste is packaged in containers measuring less than 200 mrem/hr on contact with the surface of the container and can be handled and stored without shielding.

The waste storage facility is composed of one Type I Storage Module, seven Type II Storage Modules, and an RE that provides a weather shield for the waste stored on earthen/fabric-covered pads. The RE, the Type I Storage Module, and six of the Type II Modules are operated by the INEEL Management and Operations (M&O) Contractor; the seventh Type II Storage Module is currently operated by BNFL, Inc. Processes are in-place or under development at the WSF to characterize stored waste, certify that it meets disposal criteria, and to assemble and transport waste to treatment/disposal facilities. Waste retrieval from the storage pads in the RE is planned to begin in the year 2002. Containers of waste will be (a) retrieved inside the RE, (b) warmed and examined in the existing SWEPP or other buildings (c) vented in the Drum Venting Facility or other buildings—if needed, and (d) moved to the WSF Type II buildings or other buildings to await loading and shipment for treatment or disposal.

The RE and WSF modules were previously encompassed by a single permit to construct (PTC-023-00001, Transuranic Storage Area Retrieval Enclosure and Transuranic Waste Storage Facility) that was initially approved December 12, 1990, and modified most recently on October 13, 2000. The October 13, 2000 PTC modification reflects INEEL's request, dated September 14, 2000, to remove references to the Transuranic Waste Storage Facility in the project title and in Appendix A of the permit since no module specific limits or requirements are referenced. A copy of the October 13, 2000 PTC is included in Appendix E. The permit addresses waste retrieval operations, space heating, and emergency generator emissions from the RE.

The DOE-ID's long-term plan for managing the TRU waste at the TSA includes construction of an AMWTF and privatization of waste retrieval, examination, storage and transport operations. A Tri-Party's Memorandum of Agreement between BNFL, Inc., DOE-ID, and the INEEL M&O contractor establishes responsibilities and schedules for completing the AMWTF and for transferring custody of the RE and six of the WSF storage modules to BNFL, Inc. A permit to construct has been issued to BNFL, Inc. for the AMWTF and construction has commenced. As waste retrieval, examination and storage facilities are transferred from the M&O contractor to BNFL, Inc. the existing PTC will be modified to reflect the change in custody and associated compliance requirements. A copy of DOE-ID's Notice of Change of Operator for the TSA-RE is included in Appendix D.

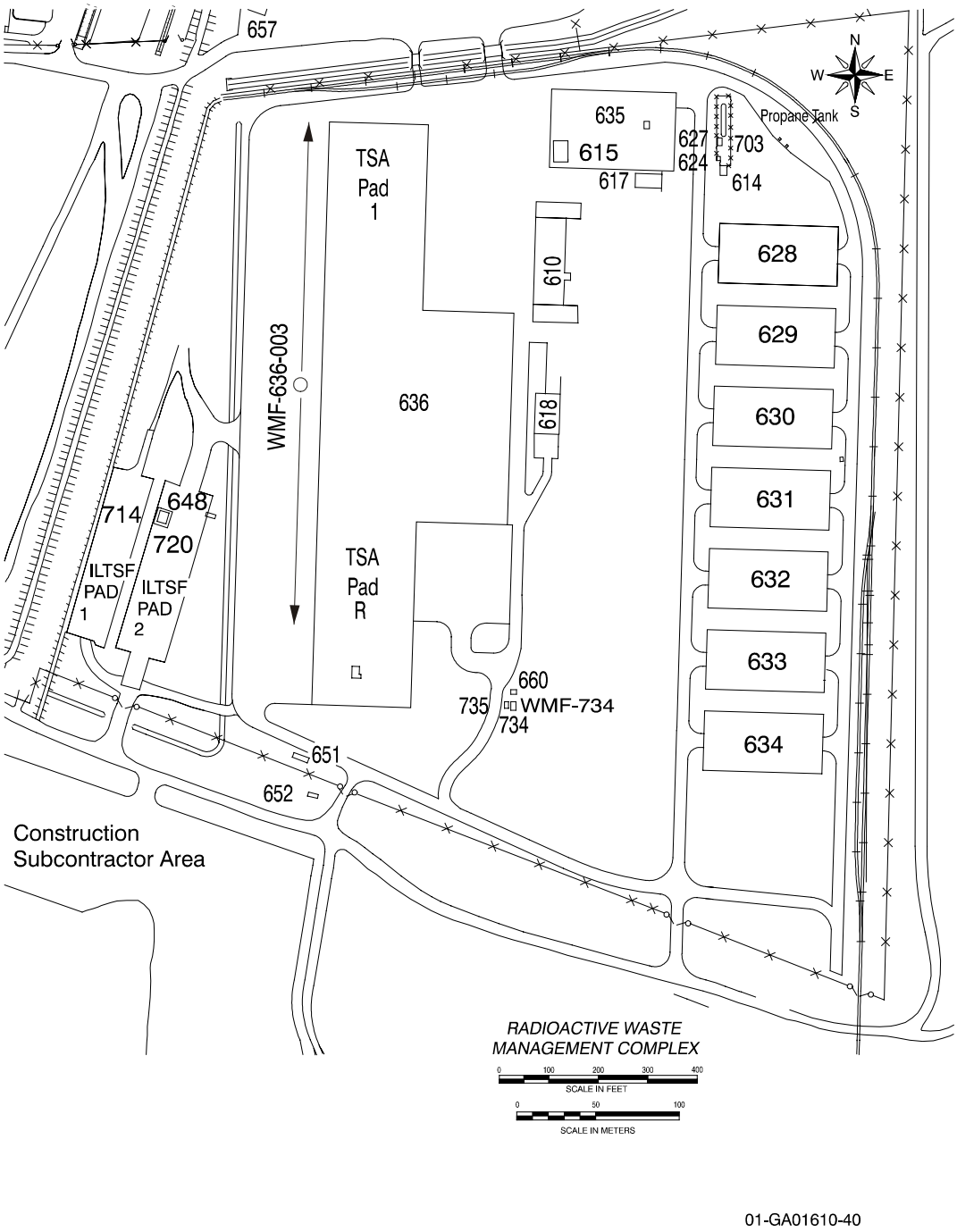

Figure IX-2-1. Plan view for Transuranic Storage Area.

2.1.2 Retrieval Enclosure and Emergency Generator

The RE (TSA-RE, Figure IX-2-2) is a large metal building that was constructed over waste storage pads in 1997 to provide for year-around waste retrieval. Retrieval operations have not begun yet, the retrieval process is currently inactive. When operations begin in 2002, the process will involve four steps: 1) removal and disposal of the soil overburden covering the waste stacks, 2) removal of waste containers, 3) surveying the containers, decontaminating, and over-packing if necessary, and 4) loading waste packages for transport to WSF modules.

2.1.2.1 ***Process Description.*** The RE has three emission sources: HVAC ventilation (WMF-636-001, Figure IX-2-4), a propane space heater (WMF-636-002, Figure IX-2-7) and a soil vacuum system (WMF-636-003, Figure IX-2-10). Particulate emissions in the HVAC ventilation and soil vacuum exhaust will be controlled by a baghouse and HEPA filters. The HVAC ventilation stack will be continuously monitored for radioactive emissions. Additionally, a permitted 810 horse power emergency generator, WMF-734-001 (Figures IX-2-12 and IX-2-14), is utilized at RWMC. The RE is scheduled to be transferred to BNFL, Inc. in May 2001. State Operating Application Forms for the above referred sources are shown as Figures IX-2-3, IX-2-6, IX-2-9, and IX-2-13, respectively.

2.1.2.2 ***Maximum Regulated Pollutant Emissions—***The RWMC PTC 023-00001 "Transuranic Storage Area Retrieval Enclosure" limits emissions to 0.01 mrem/yr dose from radionuclides emitted from the RE. However, there are currently no emissions from these units because the RE and the Soil Vacuum Unit are not yet operational.

The following addresses regulated pollutants potentially emitted from the 810 horse power emergency generator, WMF-734-001. The annual maximum emissions listed below were calculated using AP-42 emission factors for large stationary diesel engines and the requested hourly operating limits (500 hrs/yr.) associated with the generator.

Pollutant	CAS	Annual Maximum Emissions (ton/yr)	Criteria Pollutant
CO	630-08-0	1.11E+00	X
NO_x	—	4.86E+00	X
PM	—	1.42E-01	X
SO_x	—	8.19E-01	X
VOC	—	1.43E-01	X

The following addresses regulated pollutants potentially emitted from the 360 horse power engine associated with the soil vacuum system, WMF-636-003. The annual maximum emissions listed below were calculated using AP-42 emission factors for diesel industrial engines and the requested hourly operating limits (2,700 hrs/yr.) associated with the soil vacuum system.

Pollutant	CAS	Annual Maximum Emissions (ton/yr)	Criteria Pollutant
CO	630-08-0	3.25E+00	X
NO_x	—	1.51E+01	X
PM	—	1.07E+00	X
SO_x	—	9.96E-01	X
VOC	—	1.2E-00	X

2.1.2.3 Compliance Requirements.

2.1.2.3.1 Permitted Emission Limits—The RE will operate under RWMC PTC 023-00001, "Transuranic Storage Area Retrieval Enclosure." The following includes PTC limits with which this source must maintain compliance.

Pollutant	CAS	Permit limit or cap
Radionuclides	NA	0.01 mrem/yr
Radionuclides	NA	10 mrem/yr[a]

a. Aggregate emission limit for all sources at the INEEL.

2.1.2.3.2 Existing Permit Requirements—The following is a list of all permit requirements and related enforceable requirements specific to the RE and emergency generator unit. These sources are regulated by conditions of State of Idaho Permit to Construct, issued to the RWMC, 023-00001, October 13, 2000 "Transuranic Storage Area Retrieval Enclosure."

Operating Requirements

1. This source shall operate within the requirements of the U.S. Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants for radionuclide emissions from Department of Energy facilities (CFR, 40 Part 61.90).

2. Testable HEPA filters efficiency shall be maintained at or above 99.97 percent removal efficiency as determined by the guidelines of the American Society of Mechanical Engineers (ASME) N510, Section 10.

3. If the removal efficiency of the testable HEPA filter or HEPA filter bank falls below 99.97 percent as determined by the guidelines of ASME N510, Section 10, the testable HEPA filter or HEPA bank shall be isolated or replaced within 10 days until the required efficiency is achieved.

4. Each testable HEPA filter or filter bank shall be operated at a pressure drop that is limited to a maximum of 5.0 inches water column. If the total pressure drop across a HEPA filter or HEPA filter bank exceeds 5.0 inches of water column, the permittee shall isolate it or replace it within 10 days.

5. Operators shall be alerted of a degraded HEPA filter (breached, plugged or leaking) by a monitor alarm or by a decrease in the differential pressure readings across the HEPA filter in accordance with the applicant's submittal.

6. Fugitive dust and radionuclide particulate from the disposed baghouse fines shall be placed in appropriate containers and disposed properly, in accordance with the applicant's submittal.

7. The facility shall retrieve a maximum of 25,000 fifty-five gallon drum equivalents of contact handled waste per year.

8. The gas burner heater for the RE shall operate within the following parameters:

8.1	Maximum Operating Time per year	2,000 hours
8.2	Maximum fuel consumption	34.3 gph
8.3	Fuel for the gas burner heater shall be propane fuel	

9. The emergency generator shall operate within the following operating parameters:

9.1	Maximum operating time per year	500 hours
9.2	Maximum fuel consumption	40 gph
9.3	Fuel for the emergency generator shall be diesel #2 with a maximum sulfur content of 0.5 percent.	

10. The RE soil vacuum shall operate within the following parameters:

10.1	Maximum operating time per year	2,700 hours
10.2	Maximum fuel consumption	17.9 gph

10.3 Fuel for the vacuum engine shall be diesel #2 with a maximum sulfur content of 0.5 percent.

Monitoring Requirements

11. The permittee shall conduct an initial in-place efficiency test on the testable HEPA filters or filter bank within 90 days of startup, as applicable. A periodic in-place efficiency test shall be conducted thereafter at least once every 12 months, per Nuclear Air cleaning handbook, ERDA 76-21, Section 8.3.5, "Frequency of Testing." Testing shall be conducted using guidelines of ASME N510, Section 10, "HEPA Filter Bank In-Place Test." In addition, after replacement or installation of a HEPA filter, an in-place efficiency test shall be conducted within 90 days of the date that the HEPA filter is placed in operation.

12. Pressure monitoring devices shall be installed to enable monitoring of pressure drop across the testable HEPA filters. The pressure drop monitoring equipment shall be maintained in good working order. Pressure drop shall be checked daily when the HEPA filters are in operation.

13. The permittee shall monitor and test emissions of radionuclides from the RE pursuant to CFR, 40 Part 61.93.

14. The permittee shall monitor and record the following:

14.1 The number of waste containers retrieved, and the number of breached waste containers.

14.2 Hours of operation and fuel consumption of the following:

a. Gas burner heating unit,

b. Emergency generator unit, and

c. The RE diesel vacuum unit

Reporting Requirements

15. The permittee shall submit the following information to the DEQ in a yearly report (due January 31, after the calendar year end):

15.1 The dates and results of all HEPA filter efficiency tests using ASME N510, Section 10 guidelines.

15.2 The dates of replacement of HEPA filter elements.

15.3 All HEPA filter or HEPA bank alarms and a record of pressure readings over 5 inches of water column.

16. The number of waste containers retrieved shall be recorded. Breached waste containers shall be identified by visual inspection. The number of breached waste containers and total waste containers retrieved each calendar year shall be submitted to the DEQ in a yearly report prior to January 31.

17. The permittee shall record the hours of operation and fuel consumption of all equipment listed in Operating Requirements No. 8 and 10 of Section 2.1.2.3.2. The recorded data shall be submitted to the DEQ as part of the yearly report required in Operating Requirement No. 16 above.

2.1.2.3.3 Other Enforceable Requirements— Periodic confirmatory measurements must be conducted in accordance with 40 CFR Part 61.93 (b) to determine radionuclide emissions used to demonstrate compliance with emissions limit. All emissions from this source must be included in the facility-wide INEEL annual NESHAPs Report (40 CFR Part 61.94) and records supporting the emissions measurements must be kept as stated in 40 CFR Part 61.95. See compliance methodology form in Volume I, Section 5.5.1.2.2.

The State of Idaho regulates visible emissions as determined by emission opacity. Visible emissions shall not exceed 20% opacity for a period or periods aggregating more than 3 minutes in any 60-minute period. See compliance methodology form in Volume I, Section 5.1.

2.1.2.4 Compliance Methodology and Status

2.1.2.4.1 Compliance Plan—Retrieval operations in the RE have not commenced. The RE and associated processes will be transferred to BNFL, Inc. before retrieval operations begin. Appropriate modifications to the PTC and Title V Operating Permit will be requested to reflect changes in custody and responsibility for RE processes. Compliance certification methodologies will be developed for the RE prior to operations. For each applicable requirement that will become effective during the term of the Tier I operating permit that does not contain a more detailed schedule, this source will meet the applicable requirement on a timely basis. For each applicable requirement that will become effective during the term of the Tier I operating permit that contains a more detailed schedule, this source will comply with the applicable requirement on the schedule provided in the applicable requirement.

2.1.2.4.2 Compliance Methodology Forms—See attached compliance certification forms for the RE HVAC ventilation system (WMF-636-001, Figure IX-2-5), the propane space heater (WMF-636-002, Figure IX-2-8), the soil vacuum system (WMF-636-003, Figure IX-2-11), and the emergency generator (WMF-734-001, Figure IX-2-15).

2.1.2.5 ***Emission Calculations.*** No emission calculations are required to comply with permit requirements for the currently operating buildings/processes. However, emission estimates for fuel burning equipment were derived from the EPA's Compilation of Air Pollutant Emission Factors, Volume I, "Stationary Point and Area Sources," AP-42 calculation methods. AP-42 emissions calculations for fuel burning equipment are based on annual fuel burned for a type of large stationary or industrial engine. Maximum regulated pollutant emissions for the 810 hp emergency generator and the 360 hp engine associated with the soil vacuum system are presented in Section 2.1.2.2.

2.1.2.5.1 Nonradionuclide Emissions—Planned waste retrieval operations in the RE have not begun so there are currently no emissions. When operations begin, compliance methods will be implemented***.***

2.1.2.5.2 ***Radionuclide Emissions—***Planned waste retrieval operations in the RE have not begun so there are currently no emissions. When operations begin, compliance methods described in Figure IX-2-5, IX2-8, IX-2-11, and IX-2-15 will be implemented.

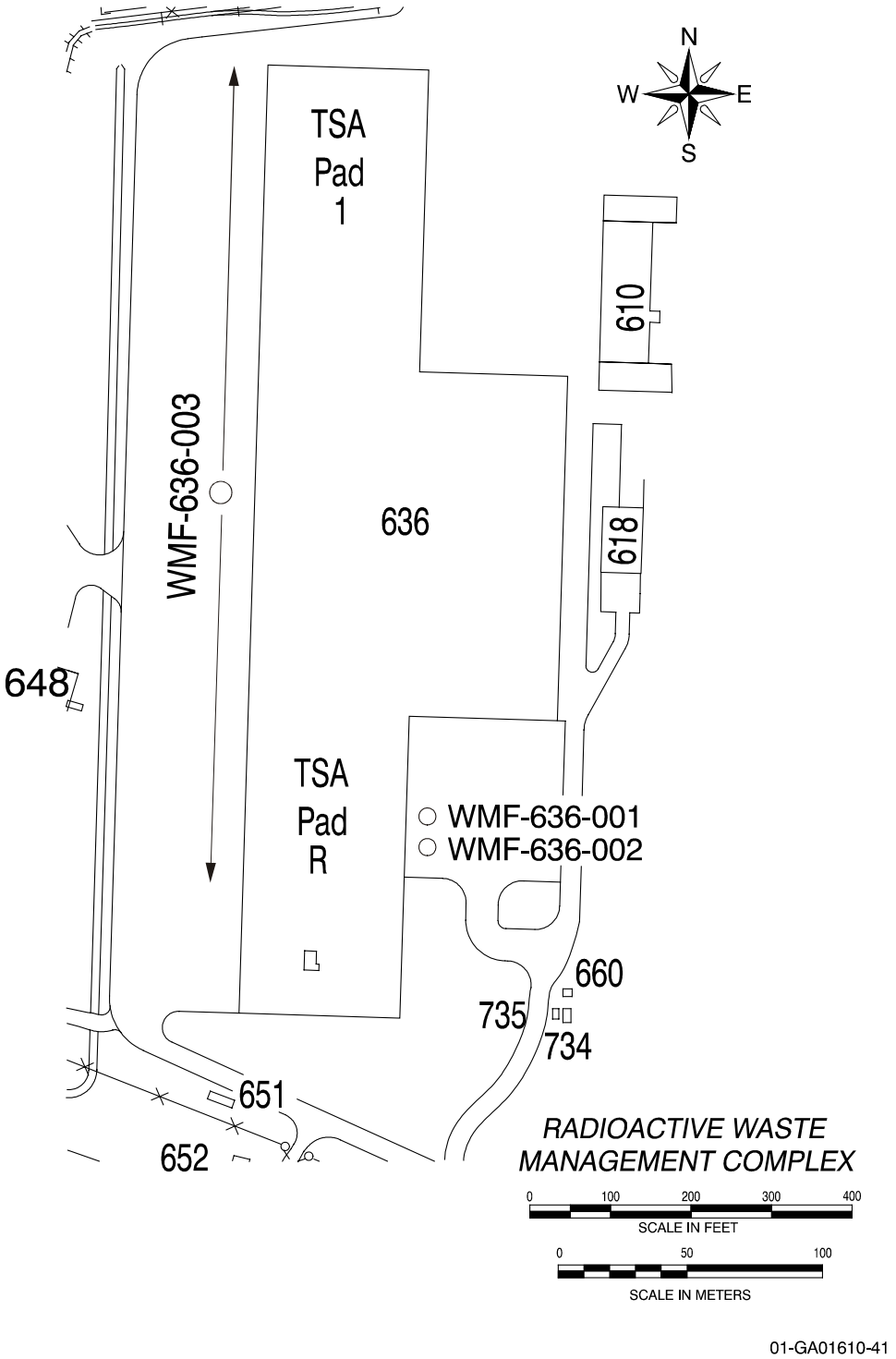

Figure IX-2-2. Plan view for the TSA-RE.

Figure IX-2-3. State Operating Permit Application Form.

DEQ USE ONLY			DEQ USE ONLY
DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE	DEQ BUILDING ID CODE
PRIMARY SCC	SECONDARY SCC	DEQ SEGMENT CODE	

PART A

GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	STACK DESCRIPTION	BUILDING DESCRIPTION
WMF - 636 - 001	Retrieval Enclosure	WMF - 636
MANUFACTURER	**MODEL**	**DATE INSTALLED OR LAST MODIFIED**
NA	NA	1997

PROCESSING DATA

PROCESS STREAM	MATERIAL DESCRIPTION	MAXIMUM HOURLY RATE	ACTUAL HOURLY RATE	ACTUAL ANNUAL RATE	UNITS
INPUT	NA	NA	NA	NA	NA
PRODUCT OUTPUT	NA	NA	NA	NA	NA
WASTE OUTPUT	NA	NA	NA	NA	NA
RECYCLE	NA	NA	NA	NA	NA

POTENTIAL HAPS IN PROCESS STREAMS

HAP DESCRIPTION	HAP CAS NUMBER	FRACTION IN INPUT STREAM BY WEIGHT	FRACTION IN PRODUCT STREAM BY WEIGHT	FRACTION IN WASTE STREAM BY WEIGHT	FRACTION IN RECYCLE STREAM BY WEIGHT
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA

Figure IX-2-3. (continued).

PART B

OPERATING DATA

PERCENT OPERATIONS PER QUARTER			
DEC-FEB	MAR-MAY	JUN-AUG	SEP-NOV
25	25	25	25

NORMAL OPERATING SCHEDULE		
HOURS/DAY	DAYS/WEEK	WEEKS/YEAR
24	7	52

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE	Baghouse	HEPA Filter
TYPE CODE (APPENDIX H)		101
MANUFACTURER	General Resource Corp.	Flanders or equivalent
MODEL NUMBER (Serial Number)	4-112-001	NA
INLET TEMPERATURE (ºF)	70	70
PRESSURE DROP (INCHES H20)	NA	< 5
WET SCRUBBER FLOW (GPM)	NA	NA
BAGHOUSE AIR/CLOTH RATIO (FPM)	NA	NA

VENTILATION AND BUILDING/AREA DATA

ENCLOSED? (Y/N)	HOOD TYPE (APP I)	MINIMUM FLOW (ACFM)	% CAPTURE EFFICIENCY
Y	NA	NA	NA

BUILDING HEIGHT (FEET)	BUILDING/AREA LENGTH (FEET)	BUILDING/AREA WIDTH (FEET)
53 (outside dimensions)	1178	384

STACK DATA

GROUND ELEVATION (FT)	UTM X COORDINATE (KM)	UTM Y COORDINATE (KM)	STACK[a] TYPE
5005	335.214	4817.838	02

STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	STACK EXIT DIAMETER (IN)	STACK EXIT GAS FLOW RATE (ACFM)	STACK EXITTEMP (ºF)
68[C]	48	25,862-87,600[C]	50º F-90º F[c]

a. 01) DOWNWARD, 02) VERTICAL (UNCOVERED), 03) VERTICAL COVERED, 04) HORIZONTAL, 05) FUGITIVE

AIR POLLUTANT EMISSIONS

POLLUTANT[a]	CAS NUMBER	EMISSION FACTOR	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS	COMBINED WSF ALLOWABLE EMISSIONS	REFERENCE
Radionuclide	NA	NA	99.97%	NA	0.01 mrem/yr[b]	RWMC TSA-RE PTC
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA

a. Process is not operating – there are presently no emissions.
b. Allowable radionuclide emissions in aggregate with source WMF-636-003.
c. Based on DEQ Technical Memorandum (D. Heiser, March 5, 2000).

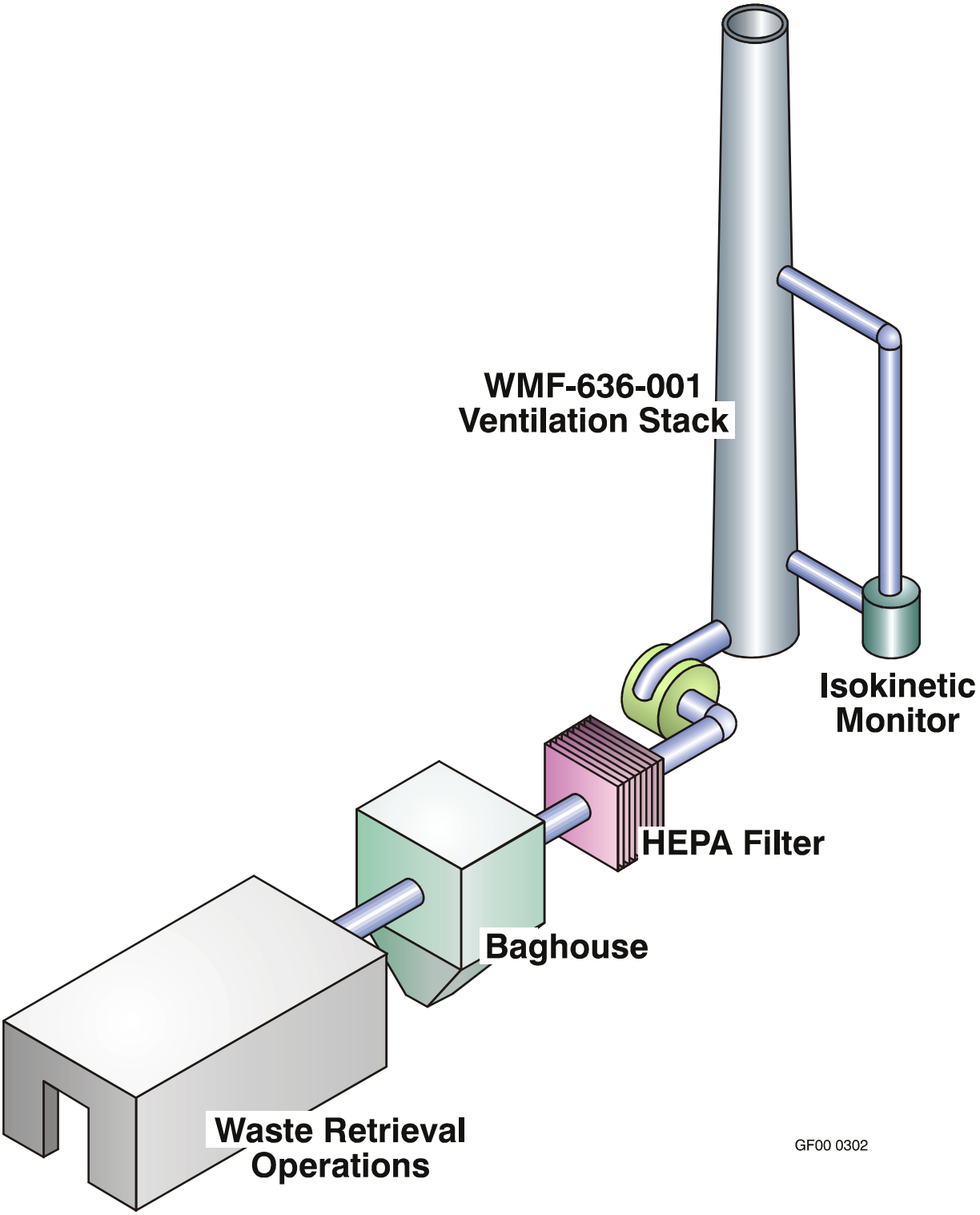

Figure IX-2-4. RE ventilation system process (WMF-636-001).

Emission Point Number WMF 636-001

REQUIREMENT 1

Applicable Requirement: Testable HEPA filters efficiency shall be maintained at or above 99.97%

Method required for determining compliance: ASME N510, Section 10 testing once every 12 months and within 90 days of replacement.

Method used to prove compliance: Recordkeeping

REFERENCE TEST METHOD

Reference test method description: Testing of HEPA filters

Reference test method citation: ASME N510

MONITORING

Monitoring device type: NA

Monitor location description: NA

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: NA

RECORDKEEPING

Data (parameter) being recorded: Test dates and results, replacement dates and alarms

Frequency of recordkeeping (how often is data recorded): After each test, replacement or alarm

REPORTING

General description of what is reported: Dates and results of all tests, dates of filter replacement and HEPA filter/ filter bank alarms

Frequency of reporting: annually

Beginning date: January 31 following commencement of operations

Figure IX-2-5. Compliance Certification Form (method of compliance).

Emission Point Number WMF 636-001

REQUIREMENT 2

Applicable Requirement: HEPA filter pressure drop shall not exceed 5 inches of water column

Method required for determining compliance: Alarm or pressure drop indicator.

Method used to prove compliance: Recordkeeping

REFERENCE TEST METHOD

Reference test method description: Alarm or pressure drop meter

Reference test method citation: NA

MONITORING

Monitoring device type: Alarm or pressure drop meter.

Monitor location description: On each filter or filter bank.

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: NA

RECORDKEEPING

Data (parameter) being recorded: Pressure drop.

Frequency of recordkeeping (how often is data recorded): Daily reading when filters are in operation.

REPORTING

General description of what is reported: Dates of all HEPA filter or HEPA filter bank alarms and a record of pressure readings over 5 inches water column.

Frequency of reporting: Annually

Beginning date: January 31 following commencement of operations

Figure IX-2-5. (continued) .

Emission Point Number WMF 636-001

REQUIREMENT 3

Applicable Requirement: Facility shall receive a maximum of 25,000 fifty-five gallon drum equivalents of contact handled waste per year.

Method required for determining compliance: Recordkeeping

Method used to prove compliance: Recordkeeping

REFERENCE TEST METHOD

Reference test method description: NA

Reference test method citation: NA

MONITORING

Monitoring device type: NA

Monitor location description: NA

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: NA

RECORDKEEPING

Data (parameter) being recorded: Containers received and containers breached

Frequency of recordkeeping (how often is data recorded): As containers are received.

REPORTING

General description of what is reported: Number of breached waste containers and total waste containers retrieved.

Frequency of reporting: Annual

Beginning date: Yearly report submitted prior to January 31 following commencement of operations.

Figure IX-2-5. (continued).

Emission Point Number WMF 636-001

REQUIREMENT 4

Applicable Requirement: This source shall operate within the requirements of the U.S. Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants for Radionuclide Emissions from Department of Energy facilities (CFR, 40 Part 61.90).

Requirement basis: CFR, 40 Part 61.90 et seq.

Method used to prove compliance: Recordkeeping, emission calculations and monitoring.

REFERENCE TEST METHOD

Reference test method description: Determine radioactive emissions and effective dose equivalent values to members of the public.

Reference test method citation: EPA approved sampling procedures, computer models CAP-88 or AIRDOS-PC, or other procedures for which EPA has granted prior approval

MONITORING

Monitoring device type: NA

Monitor location description: NA

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: NA

RECORDKEEPING

Data (parameter) being recorded: documentation of all input parameters including the results of all measurements upon which they are based, calculations and/or analytical methods used to derive values for input parameters, and the procedure used to determining effective dose equipment.

Frequency of recordkeeping (how often is data recorded): NA

REPORTING

General description of what is reported: Effective dose equivalent to the INEEL maximally exposed individual form all INEEL radiological emission sources

Frequency of reporting: Annually

Beginning date: June 30 following commencement of operations

Figure IX-2-5. (continued).

Emission Point Number WMF 636-001

REQUIREMENT 5

Applicable Requirement: Fugitive dust and radionuclide particulate from the disposal baghouse fines shall be placed in appropriate containers and disposed properly.

Requirement basis: RWMC, PTC-023-00001, October 13, 2000 Transuranic Storage Area Retrieval Enclosure

Method used to prove compliance: Recordkeeping

REFERENCE TEST METHOD

Reference test method description: NA

Reference test method citation: NA

MONITORING

Monitoring device type: NA

Monitor location description: NA

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: NA

RECORDKEEPING

Data (parameter) being recorded: Disposal records

Frequency of recordkeeping (how often is data recorded): Per event

REPORTING

General description of what is reported: Fugitive dust, radionuclide particulate

Frequency of reporting: Bi-annuallly if determined to be a hazardous waste.

Beginning date: Upon hazard determination

Figure IX-2-5. (continued).

Emission Point Number WMF 636-001

REQUIREMENT 6

Applicable Requirement: Radionuclides emissions from this source in aggregate with WMF-636-003 shall not, cause any individual to receive a dose of 0.01 millirem-per-year effective dose equivalent or greater, nor shall these emissions, in combination with emissions from other INEEL sources, cause any individual to receive a dose of 10 millirem-per-year effective dose equivalent or greater.

Requirement basis: RWMC, PTC-023-00001, October 13, 2000 Transuranic Storage Area Retrieval Enclosure

Compliance method type: Recordkeeping, emission monitoring and dose calculations

REFERENCE TEST METHOD

Reference test method description: Determine radioactive emissions and effective dose equivalent values to members of the public.

Reference test method citation: EPA approved sampling procedures, computer models CAP-88 or AIRDOS-PC, or other procedures for which EPA has granted prior approval

MONITORING

Monitoring device type: NA

Monitor location description: NA

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: NA

RECORDKEEPING

Data (parameter) being recorded: Documentation of all input parameters including the results of all measurements upon which they are based, calculations and/or analytical methods used to derive values for input parameters, and the procedure used to determining effective dose equipment.

Frequency of recordkeeping (how often is data recorded): NA

REPORTING

General description of what is reported: Effective dose equivalent to the INEEL maximally exposed individual form all INEEL radiological emission sources

Frequency of reporting: Annually

Beginning date: June 30 following commencement of operations

Figure IX-2-5. (continued).

Figure IX-2-6. State Operating Application Permit Form.

DEQ USE ONLY			DEQ USE ONLY
DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE	DEQ BUILDING ID CODE
PRIMARY SCC	SECONDARY SCC	DEQ SEGMENT CODE	

PART A

GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	STACK DESCRIPTION	BUILDING DESCRIPTION
WMF - 636 - 002	Retrieval Enclosure Propane Heater	WMF - 636
MANUFACTURER	MODEL	DATE INSTALLED OR LAST MODIFIED
Maxon	400	1997

PROCESSING DATA

PROCESS STREAM	MATERIAL DESCRIPTION	MAXIMUM HOURLY RATE	ACTUAL HOURLY RATE	ACTUAL ANNUAL RATE	UNITS
INPUT	Propane	34.3	NA	NA	gph
PRODUCT OUTPUT	Space Heat	NA	NA	NA	NA
WASTE OUTPUT	NA	NA	NA	NA	NA
RECYCLE	NA	NA	NA	NA	NA

POTENTIAL HAPS IN PROCESS STREAMS

HAP DESCRIPTION	HAP CAS NUMBER	FRACTION IN INPUT STREAM BY WEIGHT	FRACTION IN PRODUCT STREAM BY WEIGHT	FRACTION IN WASTE STREAM BY WEIGHT	FRACTION IN RECYCLE STREAM BY WEIGHT
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA

Figure IX-2-6. (continued).

PART B

OPERATING DATA

PERCENT OPERATIONS PER QUARTER			
DEC-FEB	MAR-MAY	JUN-AUG	SEP-NOV
33	33	0	33

NORMAL OPERATING SCHEDULE		
HOURS/DAY	DAYS/WEEK	WEEKS/YEAR
24	5	16

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE	NA	NA
TYPE CODE (APPENDIX H)	NA	NA
MANUFACTURER	NA	NA
MODEL NUMBER	NA	NA
INLET TEMPERATURE (ºF)	NA	NA
PRESSURE DROP (INCHES H20)	NA	NA
WET SCRUBBER FLOW (GPM)	NA	NA
BAGHOUSE AIR/CLOTH RATIO (FPM)	NA	NA

VENTILATION AND BUILDING/AREA DATA

ENCLOSED? (Y/N)	HOOD TYPE (APP I)	MINIMUM FLOW (ACFM)	% CAPTURE EFFICIENCY
Y	NA	NA	NA

BUILDING HEIGHT (FEET)	BUILDING/AREA LENGTH (FEET)	BUILDING/AREA WIDTH (FEET)
53 (outside dimensions)	1178	384

STACK DATA

GROUND ELEVATION (FT)	UTM X COORDINATE (KM)	UTM Y COORDINATE (KM)	STACK[a] TYPE
5005	335.214	4817.825	02

STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	STACK EXIT DIAMETER (IN)	STACK EXIT GAS FLOW RATE (ACFM)	STACK EXITTEMP (ºF)
65[b]	14[b]	754[b]	115ºF[b]

a. 01) DOWNWARD, 02) VERTICAL (UNCOVERED), 03) VERTICAL COVERED, 04) HORIZONTAL, 05) FUGITIVE

AIR POLLUTANT EMISSIONS

POLLUTANT[a]	CAS NUMBER	EMISSION FACTOR	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS	COMBINED WSF ALLOWABLE EMISSIONS	REFERENCE
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA

a. Process is not operating – there are presently no emissions
b. Based on DEQ Technical Memorandum (D. Heiser, March 5, 2000)..

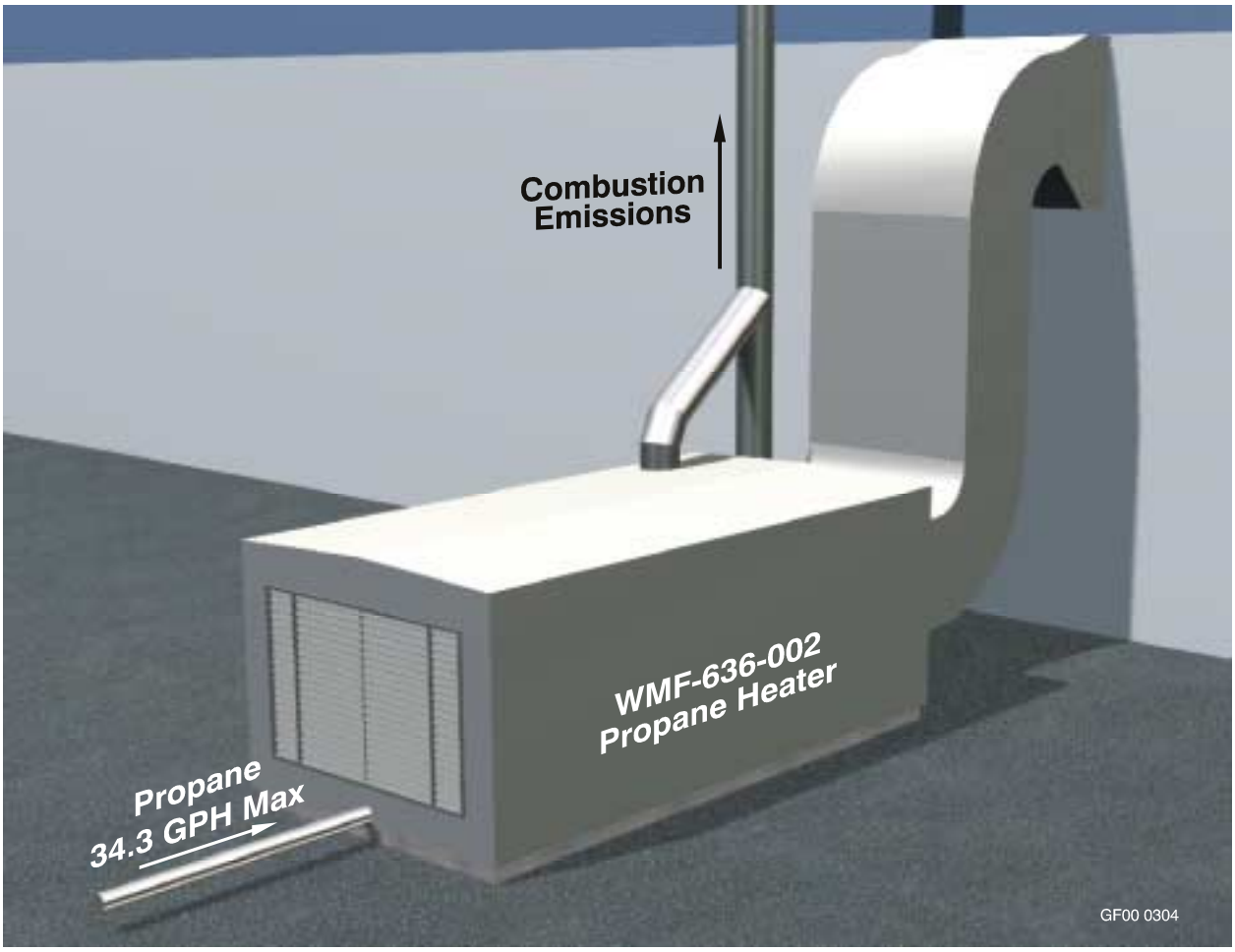

Figure IX-2-7. RE propane space heater (WMF-636-002).

Emission Point Number WMF 636-002

REQUIREMENT

Applicable Requirement: Gas burner heater for the retrieval enclosure shall operate within the following:

Maximum Annual Run Time—2,000 hr/yr

Maximum Fuel Use Rate—34.3 gph

Fuel Type—Propane

Method required for determining compliance: Monitoring of run time and fuel use

Method used to prove compliance: Recordkeeping

REFERENCE TEST METHOD

Reference test method description: NA

Reference test method citation: NA

MONITORING

Monitoring device type: Unspecified

Monitor location description: NA

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: NA

RECORDKEEPING

Data (parameter) being recorded: Run time and fuel use rate

Frequency of recordkeeping (how often is data recorded): As operated

REPORTING

General description of what is reported: Hours of operation and fuel consumption

Frequency of reporting: Annually

Beginning date: Yearly report prior to January 31 following commencement of operations.

Figure IX-2-8. Compliance Certification Form (method of compliance).

Figure IX-2-9. State Operating Permit Application Permit Form.

DEQ USE ONLY			DEQ USE ONLY
DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE	DEQ BUILDING ID CODE
PRIMARY SCC	SECONDARY SCC	DEQ SEGMENT CODE	

PART A

GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	STACK DESCRIPTION	BUILDING DESCRIPTION
WMF - 636 - 003	Retrieval Enclosure Soil Vacuum	WMF - 636
MANUFACTURER	**MODEL**	**DATE INSTALLED OR LAST MODIFIED**
Guzzler	NA	1997

PROCESSING DATA

PROCESS STREAM	MATERIAL DESCRIPTION	MAXIMUM HOURLY RATE	ACTUAL HOURLY RATE	ACTUAL ANNUAL RATE	UNITS
INPUT	Diesel	17.9	NA	NA	gph
PRODUCT OUTPUT	Soil	NA	NA	NA	NA
WASTE OUTPUT	NA	NA	NA	NA	NA
RECYCLE	NA	NA	NA	NA	NA

POTENTIAL HAPS IN PROCESS STREAMS

HAP DESCRIPTION	HAP CAS NUMBER	FRACTION IN INPUT STREAM BY WEIGHT	FRACTION IN PRODUCT STREAM BY WEIGHT	FRACTION IN WASTE STREAM BY WEIGHT	FRACTION IN RECYCLE STREAM BY WEIGHT
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA

Figure IX-2-9. (continued).

PART B

OPERATING DATA

PERCENT OPERATIONS PER QUARTER			
DEC-FEB	MAR-MAY	JUN-AUG	SEP-NOV
25	25	25	25

NORMAL OPERATING SCHEDULE		
HOURS/DAY	DAYS/WEEK	WEEKS/YEAR
8	7	52

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE	Cyclone and Baghouse on vacuum exhaust	HEPA Filter
TYPE CODE (APPENDIX H)	NA	NA
MANUFACTURER	P & S	Astrocel
MODEL NUMBER	NA	NA
INLET TEMPERATURE (ºF)	68	68
PRESSURE DROP (INCHES H20)	NA	NA
WET SCRUBBER FLOW (GPM)	NA	NA
BAGHOUSE AIR/CLOTH RATIO (FPM)	NA	NA

VENTILATION AND BUILDING/AREA DATA

ENCLOSED? (Y/N)	HOOD TYPE (APP I)	MINIMUM FLOW (ACFM)	% CAPTURE EFFICIENCY
Y	NA	NA	NA

BUILDING HEIGHT (FEET)	BUILDING/AREA LENGTH (FEET)	BUILDING/AREA WIDTH (FEET)
53 (outside dimensions)	1178	384

STACK DATA

GROUND ELEVATION (FT)	UTM X COORDINATE (KM)	UTM Y COORDINATE (KM)	STACK[a] TYPE
5005	335.141	4817.946	2

STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	STACK EXIT DIAMETER (IN)	STACK EXIT GAS FLOW RATE (ACFM)	STACK EXITTEMP (ºF)
14[e]	10[e]	1,000 – 4,000[e]	~68

a. 01) DOWNWARD, 02) VERTICAL (UNCOVERED), 03) VERTICAL COVERED, 04) HORIZONTAL, 05) FUGITIVE

AIR POLLUTANT EMISSIONS

POLLUTANT[a]	CAS NUMBER	EMISSION FACTOR[b]	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS[c]	COMBINED WSF ALLOWABLE EMISSIONS	REFERENCE
Radionuclide	NA	NA	99.97%	NA	0.01 mrem/yr[d]	RWMC TSA-RE PTC
PM_{10}	NA	2.2E-03	NA	1.07E+00	NA	NA
SO_x	NA	2.05E-03	NA	9.96E-01	NA	NA
VOC	NA	2.47E-03	NA	1.2E+00	NA	NA
NO_x	NA	3.1E-02	NA	1.51E+01	NA	NA
CO	630-08-0	6.68E-03	NA	3.25E+00	NA	NA

a. Process is not operating – there are presently no emissions.
b. Emission factors from AP-42 (lb/hp-hr).
c. Calculations based on a diesel engine with a 360 horse power rating and a maximum permitted operating time of 2,700 hours (PTC-023-00001, Transuranic Storage Area Retrieval Enclosure)
d. Allowable radionuclide emissions in aggregate with source WMF-636-001.
e. Based on a DEQ Technical Memorandum (D. Heiser, March 5, 2000).

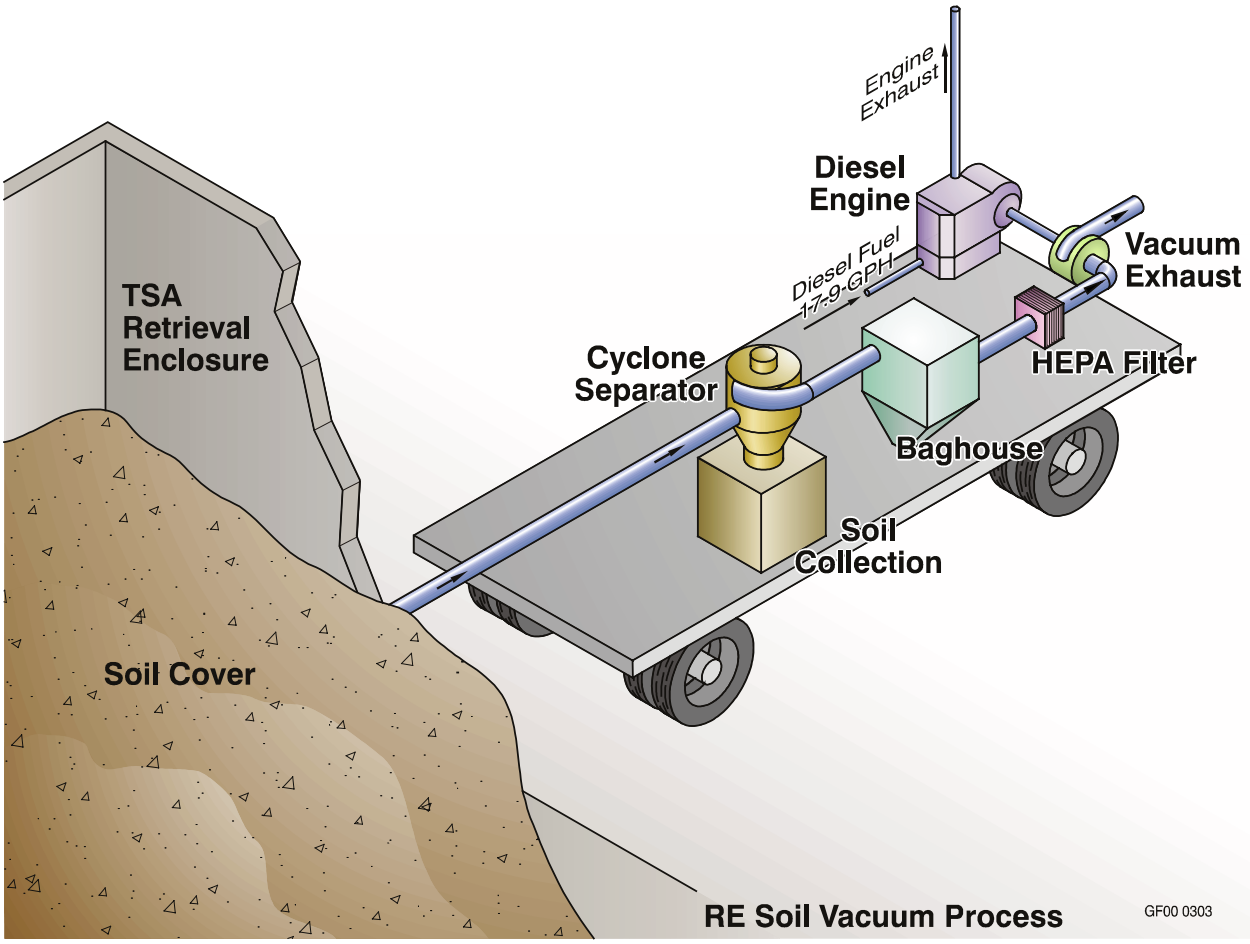

Figure IX-2-10. RE soil vacuum process (WMF-636-003).

Emission Point Number WMF 636-003

REQUIREMENT 1

Applicable Requirement: RE Soil vacuum shall operate within the following:

Maximum Annual Run Time—2,700 hr/yr

Maximum Fuel Use Rate—17.9 gal/hr

Fuel Type—#2 diesel with maximum sulfur content of 0.5%

Method required for determining compliance: Monitoring of run time and fuel use

Method used to prove compliance: Recordkeeping. The compliance method for ensuring that #2 diesel fuel used on the INEEL contains less than 0.5% sulfur is addressed in Volume I, Section 3.13.

REFERENCE TEST METHOD

Reference test method description: NA

Reference test method citation: NA

MONITORING

Monitoring device type: Unspecified

Monitor location description: NA

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: NA

RECORDKEEPING

Data (parameter) being recorded: Run time and fuel use rate

Frequency of recordkeeping (how often is data recorded): As operated

REPORTING

General description of what is reported: Hours of operation and fuel consumption

Frequency of reporting: Annually

Beginning date: Yearly report prior to January 31 following commencement of operations.

Figure IX-2-11. Compliance Certification Form (method of compliance).

Emission Point Number WMF 636-003

REQUIREMENT 2

Applicable Requirement: This source shall operate within the requirements of the U.S. Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants for Radionuclide Emissions from Department of Energy facilities (CFR, 40 Part 61.90).

Requirement basis: CFR, 40 Part 61.90 et seq.

Method used to prove compliance: Recordkeeping, emission calculations and monitoring

REFERENCE TEST METHOD

Reference test method description: Determine radioactive emissions and effective dose equivalent values to members of the public.

Reference test method citation: EPA approved sampling procedures, computer models CAP-88 or AIRDOS-PC, or other procedures for which EPA has granted prior approval

MONITORING

Monitoring device type: NA

Monitor location description: NA

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: NA

RECORDKEEPING

Data (parameter) being recorded: documentation of all input parameters including the results of all measurements upon which they are based, calculations and/or analytical methods used to derive values for input parameters, and the procedure used to determining effective dose equipment.

Frequency of recordkeeping (how often is data recorded): NA

REPORTING

General description of what is reported: Effective dose equivalent to the INEEL maximally exposed individual form all INEEL radiological emission sources

Frequency of reporting: Annually

Beginning date: June 30 following commencement of operations

Figure IX-2-11. (continued).

Emission Point Number WMF 636-003

REQUIREMENT 3

Applicable Requirement: Radionuclides emissions from this source in aggregate with WMF-636-001 shall not, cause any individual to receive a dose of 0.01 millirem-per-year effective dose equivalent or greater, nor shall these emissions, in combination with emissions from other INEEL sources, cause any individual to receive a dose of 10 millirem-per-year effective dose equivalent or greater.

Requirement basis: RWMC, PTC-023-00001, October 13, 2000 Transuranic Storage Area Retrieval Enclosure

Compliance method type: Recordkeeping, emission monitoring and dose calculations

REFERENCE TEST METHOD

Reference test method description: Determine radioactive emissions and effective dose equivalent values to members of the public.

Reference test method citation: EPA approved sampling procedures, computer models CAP-88 or AIRDOS-PC, or other procedures for which EPA has granted prior approval

MONITORING

Monitoring device type: NA

Monitor location description: NA

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: NA

RECORDKEEPING

Data (parameter) being recorded: Documentation of all input parameters including the results of all measurements upon which they are based, calculations and/or analytical methods used to derive values for input parameters, and the procedure used to determining effective dose equipment.

Frequency of recordkeeping (how often is data recorded): NA

REPORTING

General description of what is reported: Effective dose equivalent to the INEEL maximally exposed individual form all INEEL radiological emission sources

Frequency of reporting: Annually

Beginning date: June 30 following commencement of operations

Figure IX-2-11. (continued).

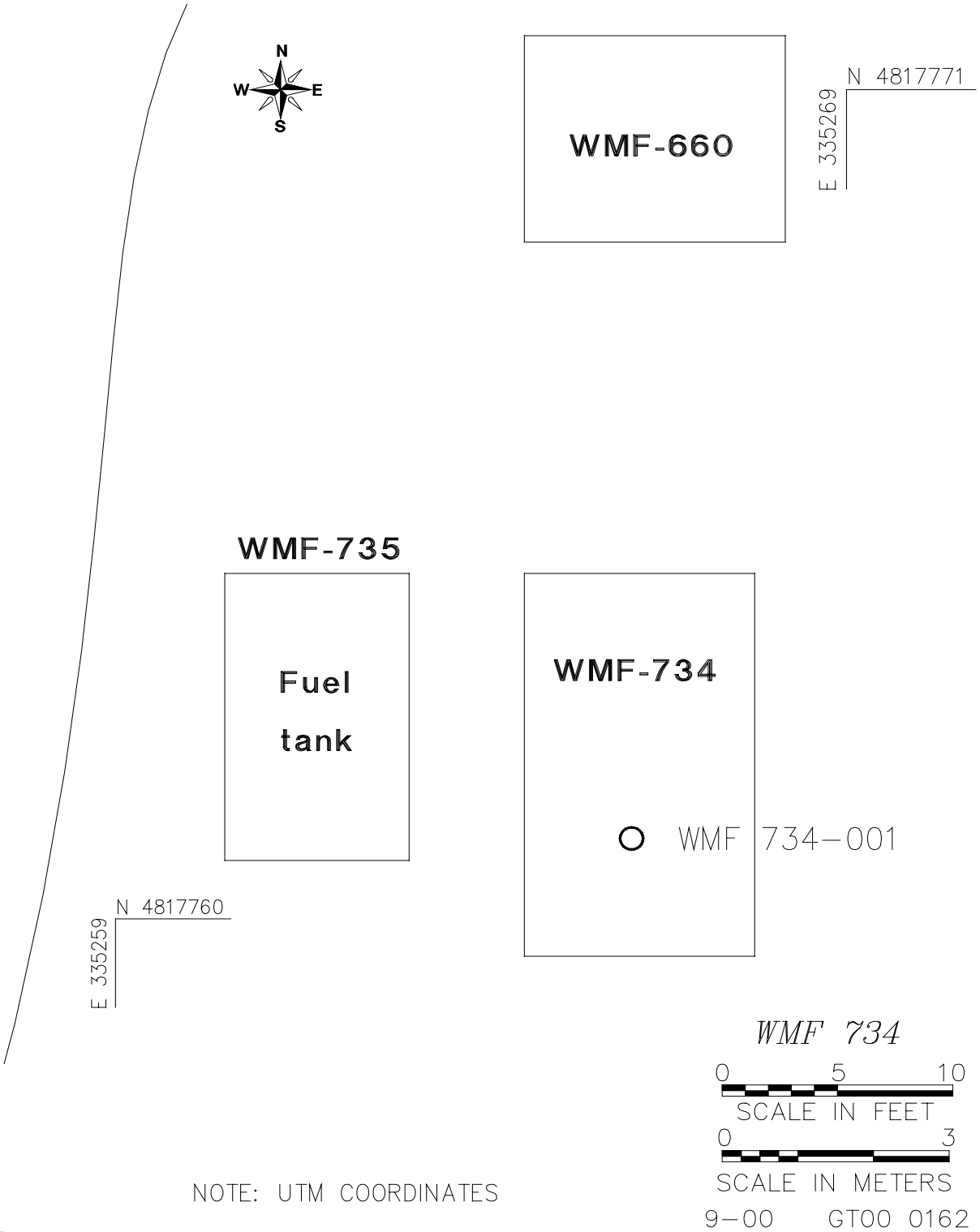

Figure IX-2-12. Plan view for TSA Emergency Generator (WMF-734-001).

Figure IX-2-13. State Operating Application Permit Form.

DEQ USE ONLY			DEQ USE ONLY
DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE	DEQ BUILDING ID CODE
PRIMARY SCC	SECONDARY SCC	DEQ SEGMENT CODE	

PART A

GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	STACK DESCRIPTION	BUILDING DESCRIPTION
WMF - 734 - 001	TSA Emergency Generator	WMF - 734
MANUFACTURER	**MODEL**	**DATE INSTALLED OR LAST MODIFIED**
Caterpillar	3412	1994

PROCESSING DATA

PROCESS STREAM	MATERIAL DESCRIPTION	MAXIMUM HOURLY RATE	ACTUAL HOURLY RATE	ACTUAL ANNUAL RATE	UNITS
INPUT	Diesel fuel	40 gph	NA	NA	NA
PRODUCT OUTPUT	Electrical Power	500 kWe	NA	NA	NA
WASTE OUTPUT	NA	NA	NA	NA	NA
RECYCLE	NA	NA	NA	NA	NA

POTENTIAL HAPS IN PROCESS STREAMS

HAP DESCRIPTION	HAP CAS NUMBER	FRACTION IN INPUT STREAM BY WEIGHT	FRACTION IN PRODUCT STREAM BY WEIGHT	FRACTION IN WASTE STREAM BY WEIGHT	FRACTION IN RECYCLE STREAM BY WEIGHT
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA

Figure IX-2-13. (continued).

PART B

OPERATING DATA

PERCENT OPERATIONS PER QUARTER			
DEC-FEB	MAR-MAY	JUN-AUG	SEP-NOV
25	25	25	25

NORMAL OPERATING SCHEDULE		
HOURS/DAY	DAYS/WEEK	WEEKS/YEAR
1	1	52

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE	NA	HEPA Filter
TYPE CODE (APPENDIX H)	NA	NA
MANUFACTURER	NA	NA
MODEL NUMBER	NA	NA
INLET TEMPERATURE (ºF)	NA	NA
PRESSURE DROP (INCHES H20)	NA	NA
WET SCRUBBER FLOW (GPM)	NA	NA
BAGHOUSE AIR/CLOTH RATIO (FPM)	NA	NA

VENTILATION AND BUILDING/AREA DATA

ENCLOSED? (Y/N)	HOOD TYPE (APP I)	MINIMUM FLOW (ACFM)	% CAPTURE EFFICIENCY
Y	NA	NA	0

BUILDING HEIGHT (FEET)	BUILDING/AREA LENGTH (FEET)	BUILDING/AREA WIDTH (FEET)
10	18	10

STACK DATA

GROUND ELEVATION (FT)	UTM X COORDINATE (KM)	UTM Y COORDINATE (KM)	STACK[a] TYPE
5005	335.26	4817.76	02

STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	STACK EXIT DIAMETER (IN)	STACK EXIT GAS FLOW RATE (ACFM)	STACK EXITTEMP (ºF)
15[d]	8	4,591	891º F

a. 01) DOWNWARD, 02) VERTICAL (UNCOVERED), 03) VERTICAL COVERED, 04) HORIZONTAL, 05) FUGITIVE

AIR POLLUTANT EMISSIONS

POLLUTANT[a]	CAS NUMBER	EMISSION FACTOR[b] lb/hp-hr	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (tpy)[c]	COMBINED WSF ALLOWABLE EMISSIONS	REFERENCE
PM_{10}	NA	7.0E-04	NA	1.42E-01	NA	NA
SO_x	NA	8.09E-03(0.5% sulfur)	NA	8.2E-01	NA	NA
VOC	NA	7.05E-04	NA	1.43E-01	NA	NA
NO_x	NA	2.4E-02	NA	4.86E+00	NA	NA
CO	630-08-0	5.5E-03	NA	1.11E+00	NA	NA

a. Process is not operating – there are presently no emissions.
b. Calculations based on emission factors from AP-42.
c. Calculations based on an 810 horse power rating and a maximum permitted operating time per year of 500 hours (PTC-023-00001, Transuranic storage Area Retrieval Enclosure).
d. Based on DEQ Technical Memorandum (D. Heiser, March 5, 2000).

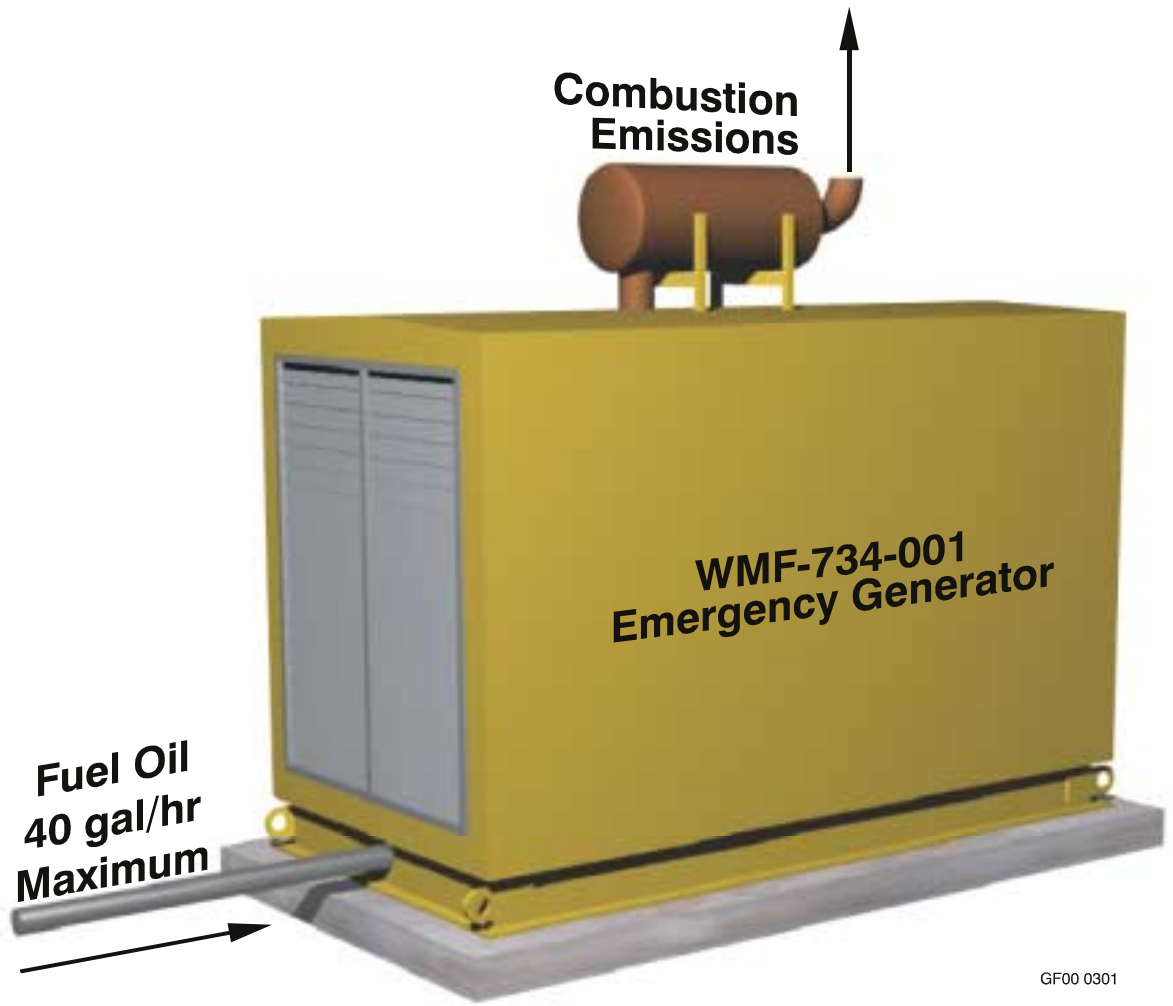

Figure IX-2-14. TSA Emergency Generator process flow diagram (WMF-734-001).

Emission Point Number WMF 734-001

REQUIREMENT

Applicable Requirement: The emergency generator shall operate within the following operating parameters:

Maximum Annual Run Time—500 hr/yr

Maximum Fuel Use Rate—40 gph

Fuel Type—#2 diesel with maximum sulfur content of 0.5%

Method required for determining compliance: To determine compliance, generator hours of operation are recorded on an hour meter and documented on preventative maintenance work order forms and on a run time log. Environmental compliance support personnel review the log periodically to ensure that operations do not exceed 500 hours. The fuel use rate is determined by multiplying the hours of operation by the manufacturers fuel consumption specification or by reviewing fuel delivery records. The preventative maintenance sheets are filed at work control and run time logs are maintained at the shift supervisor's desk. Environmental compliance reviews are kept in the source file. The compliance method for ensuring that #2 Diesel fuel used on the INEEL contains less than 0.5% sulfur is addressed in Volume 1, Section 3.13.

Method used to prove compliance: Recordkeeping

REFERENCE TEST METHOD

Reference test method description: NA

Reference test method citation: NA

MONITORING

Monitoring device type: Hour meter

Monitor location description: On emergency generator engine

Regulated pollutant being monitored: NA

General description of frequency and duration of sampling and how data will be reported: Hour meter readings are recorded per event, annual aggregate hours are monitored semi-annually.

RECORDKEEPING

Data (parameter) being recorded: Hours of emergency generator operation

Frequency of recordkeeping (how often is data recorded): Per event

REPORTING

General description of what is reported: Emergency generator hours of operation and annual fuel use

Frequency of reporting: Annually

Beginning date: January 1997

Figure IX-2-15. Compliance Certification Form (method of compliance).

2.2 Internal Combustion Engines

2.2.1 General Description

Internal combustion engines of various sizes and configurations are utilized at RWMC. These engines are either PTC grandfathered units or units that qualified for a PTC exemption in accordance with IDAPA 58.01.01.220. Engines may be gasoline, propane or diesel-fired. Uses for these units include stand-by generators and fire-water pumps.

2.2.2 Engine Specific Information

Internal combustion engines currently in use at RWMC.

Building Number	Building Name	Vent/stack number	Source description
WMF-603	RWMC Pumphouse	WMF-603-005	235-hp propane standby generator
WMF-610	SWEPP	WMF-610-003	100-hp propane standby generator
WMF-639	RWMC Pumphouse	WMF-639-001	255-hp standby diesel firewater pump

2.2.2.1 Process Description. These units are utilized for various support functions at RWMC.

2.2.2.2 Maximum Regulated Pollutant Emissions. Emissions are not quantified here because type and number of units may be continually changing and there are no associated emission limits.

2.2.2.3 Compliance Requirements

2.2.2.3.1 Permitted Emission Limits—None

2.2.2.3.2 Existing Permit Requirements—None

2.2.2.3.3 Other Enforceable Requirements-The State of Idaho regulates visible emissions as determined by emission opacity. Visible emissions shall not exceed 20% opacity for a period or periods aggregating more than 3 minutes in any 60-minute period. See compliance methodology form in Volume I.

Diesel engines shall not burn fuel with a sulfur content greater than 0.5% by weight.

2.2.2.4 Compliance Methodology and Status

2.2.2.4.1 Compliance Plan—These sources are in compliance and will continue to comply with the indicated applicable requirements as described in this application. For each applicable requirement that will become effective during the term of the Tier I operating permit that does not contain a more detailed schedule, these sources become effective during the term of the Tier I operating permit that contains a more detailed schedule, these sources will comply with the applicable requirement on the schedule provided in the applicable requirement.

2.2.2.4.2 Compliance Methodology Forms—Not required for these units.

2.2.2.5 Emission Calculations. None.

Appendix A

Department of Environmental Quality Exemption Determination for Tritium Emissions from the RWMC Sewer System

IDAHO DEPARTMENT
OF HEALTH AND WELFARE

DIVISION OF
ENVIRONMENTAL QUALITY

1410 North Hilton, Statehouse Mail, Boise, ID 83720-9000, (208) 334-0502

JUN 2 3 1993

ENVIRONMENTAL
SUPPORT BRANCH

Cecil D. Andrus, Governor

June 25, 1993

M.B. Hinman, Director
Environmental Support Division
Department of Energy
Idaho Field Office
785 DOE Place
Idaho Falls, ID 83401-1562

RE: DOE/INEL (RWMC) -- P-930214 (Sewer System Upgrade)

Dear Ms. Hinman:

On February 24, 1993, DEQ received an air permit exemption request for a sewer system upgrade at the Radioactive Waste Management complex (RWMC) at the INEL.

A review of these materials indicates that the emissions associated with the sewer system upgrade are considered secondary emissions. Briefly, secondary emissions are those emissions which, although associated with a source, are not emitted from the source itself. Secondary emissions are excluded from the potential emissions estimates used for applicability determinations; however, they must be considered in PSD analyses if PSD review is required. Because no modification is being proposed, the secondary emissions associated with the sewer system upgrade do not by themselves require or warrant PSD review or a permitting action. However, note that these emissions need to be included in all future air quality analyses for the ambient concentrations of radionuclides.

Therefore, there are no air quality permitting requirements for the sewer system upgrade. Even though the sewer system upgrade is exempt from Permit to Construct requirements it does not relieve you of the responsibility to comply with all other applicable regulations.

This letter is in no way intended to supersede any other federal, state, or local rules and regulations that may apply. Also, be advised that this letter does not constitute a waiver of any compliance actions that may result from the misinformation that may cause unreasonable risk to human or animal life, or violate any ambient air quality standard.

Sincerely,

Martin Bauer

Martin Bauer
Construction Permits Bureau
Permits & Enforcement

MB/rg:SEWERUPG.LET

cc: G. Spinner
R. Elkins
D. Heiser
L. Bensel
Source File
COF 1.1

Appendix B

Department of Environmental Quality Exemption Determination for Waste Characterization Tent

IDAHO DEPARTMENT
OF HEALTH AND WELFARE
DIVISION OF
ENVIRONMENTAL QUALITY

1410 North Hilton, Boise, ID 83706-1255, (208) 334-5500

Phil E. Bell, Governor

RECEIVED
OCT 23 1996
JAY R. MITCHELL

October 15, 1996

Jay R. Mitchell, Manager
NEPA/Permitting Department
Lockheed Idaho Technologies Company
P.O. Box 1625
Idaho Falls, ID 83415

Re: P 960146 DOE/INEL, RWMC (Waste Characterization Activities)

Dear Mr. Mitchell:

On October 3, 1996, the Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ) received from Lockheed a request for a Permit to Construct applicability determination on behalf of the Department of Energy. The permit applicability determination request is for environmental characterization activities at DOE/INEL's Radioactive Waste Management Complex.

The proposed characterization activities consist of sampling, characterizing, segregating, repackaging, sizing, and/or other similar types of activities on waste previously uncharacterized. The proposed activity will be conducted within a moveable 15 ft. by 25 ft. long HEPA filter exhausted "tent."

In accordance with IDAPA 16.01.01.221.04.b (Rules for the Control of Air Pollution in Idaho) environmental characterization activities including emplacement and operation of field instruments, drilling or sampling and monitoring wells are specifically exempted from the need to obtain a Permit to Construct. In addition the Director may exempt other environmental characterization activities. As stated in your September 30, 1996, letter all sources must meet the following prerequisites to be exempted from the need to obtain a Permit to Construct:

1. Have potential emissions of less than one hundred (100) tons per year of any air pollutant.

2. Not significantly increase emissions of a major facility.

3. Not cause or significantly contribute to a violation of an ambient air quality standard.

October 15, 1996
Jay Mitchell
Page 2

Other characterization activities specifically exempted by the Director in accordance with IDAPA 16.01.01.221.04 include, but may not be limited to: sample collection, sample handling, sorting and segregating characterized materials within the moveable 15 ft. by 25 ft. HEPA filter exhausted "tent."

Activities such as sizing and other similar type treatment activities are not exempted by the Director in accordance with IDAPA 16.01.01.221. However, these activities may be exempted by the Director in accordance with IDAPA 16.01.01.223.03.i on a case-by-case basis. These exemption determinations may be based on, but are not limited to, the amount and nature of air pollutants which may be emitted and the duration of the proposed activity.

Permit applicability requests which involve sizing or other similar treatment type activities must be accompanied by process descriptions, controlled and uncontrolled emission estimates and any other information DEQ may need to make a determination.

Should you have any questions about these exemptions please contact Mr. Martin Bauer, Chief, Air Quality Permitting Bureau at (208) 373-0502.

Sincerely,

Orville D. Green

Orville D. Green
Assistant Administrator
Air and Hazardous Waste

ODG/DP/bb:PITMAN\20EBNV.CER

cc: R. Wilkosz
D. Pitman
Idaho Falls Regional Office
Source File
COF

Appendix C

Department of Environmental Quality Exemption Determination for Drum Venting Facility

IDAHO DEPARTMENT
OF HEALTH AND WELFARE
DIVISION OF
ENVIRONMENTAL QUALITY

1410 North Hilton, Boise, ID 83706-1255, (208) 334-0502

Philip E. Batt, Governor

RECEIVED
OCT 23 1996
JAY R. MITCHELL

October 18, 1996

CERTIFIED MAIL #P 070 696 676

Jay Mitchell
NEPA/Permitting Department
Lockheed Martin Idaho Technologies Company
P.O. Box 1625
Idaho Falls, Idaho 83415

RE: P-960149 INEL Radioactive Waste Management Complex
(PTC Exemption Application for Drum Venting Facility)

Dear Mr. Mitchell:

On October 16, 1996, the Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ) received from INEL an application for a Permit to Construct (PTC) exemption for the Drum Venting Facility (DVF) at the Radioactive Waste Management Complex (RWMC). Based on a review of the submittal, and all applicable state and federal rules and regulations, DEQ has determined that the proposed project is categorically exempt from PTC requirements in accordance with IDAPA 16.01.01.223.03.i (Rules for the Control of Air Pollution in Idaho). Therefore, no state air quality Permit to Construct requirements are associated with the proposed project as long as they are conducted as described in the October 16, 1996 submittal.

Although no state air quality PTC requirements are associated with the project, it does not relieve you of the responsibility to comply with all applicable federal, state and local rules and regulations including the need to include the source and associated emissions in the operating permit application.

Please be advised that this letter does not constitute a waiver of any compliance action that may result from misinformation that may cause unreasonable risk to human or animal life, or violate any ambient air quality standards.

If you have any questions or concerns about this determination, or about our permitting process, please contact Jose Fabile, Air Quality Engineer, at (208) 373-0502.

Sincerely,

for Orville D. Green
Assistant Administrator
Air and Hazardous Waste

ODG/JF/bb: INEL\INEL-DVF.EL

cc: R. Wilkosz/TSB
Idaho Falls Regional Office
INEL Oversight
Source File
COF

Appendix D

Notice of Change of Operator for the Transuranic Storage Area Retrieval Enclosure

CCN 15932

Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, Idaho 83401-1563

NOV 2000 RECEIVED Ron H. Guymon

November 27, 2000

Mr. Jim Johnston
Manager, Remediation and Air Quality
Department of Environmental Quality
900 North Skyline, Suite B
Idaho Falls, Idaho 83402

SUBJECT: Notice of Change of Operator for the Transuranic Storage Area Retrieval Enclosure (TSA-RE) (Permit to Construct number 023-00001) (TS-ETSD-00-224)

Dear Mr. Johnston:

To facilitate retrieval of waste under the Advanced Mixed Waste Treatment Project (AMWTP), it is necessary that the operation of the Transuranic Storage Area Retrieval Enclosure (TSA-RE) be transferred to BNFL Inc. Effective February 5, 2001, the Department of Energy, Idaho Operations Office is transferring to BNFL Inc. operational control of TSA-RE. DOE-ID retains ownership of this facility. The TSA-RE is covered under permit to construct (PTC) number 023-00001, titled *Transuranic Storage Area Retrieval Enclosure*, dated October 13, 2000. Please note that the emergency generator, referenced in PTC Sections 2.9, 3.4.2(b), and 4.3, is not included in the transfer and will remain under the operational control of Bechtel BWXT Idaho, LLC (BBWI).

Therefore, we request that the following sections (related to the emergency generator) of the PTC referenced above, be separated into another PTC to allow administration separate of the requirements related to the TSA-RE and RE soil vacuum:

- Section 2.9 (including §§ 2.9.1, 2.9.2, and 2.9.3) and
- Section 3.4.2(b).

The following changes to the TSA-RE PTC also would result:

- Renumber Section 2.10 (and subsections) to be 2.9 on page 3 of 6.
- Renumber Section 3.4.2(c) to be 3.4.2(b) on page 4 of 6.
- Revise Section 4.3 as follows to reflect removal of section 2.9: " ... in sections 2.8 and 2.9 of this PTC."

We also note that DEQ may wish to take this opportunity to change IDAPA citations to "58" and "division" to "department" on page 1 of 6.

BNFL Inc. plans to slightly change the retrieval methods to be used at TSA-RE, as presented in the application for the facility, to include a conveyor to remove overburden soil to transport vehicles located outside the building. The attached paper briefly describes the planned process and modifications to the TSA-RE structure. The analysis shows that the planned structural modifications do not affect the nature or amount (i.e., increase) of emissions at the facility as presented in the application and subsequent modifications of the PTC, and therefore, the planned structural modifications do not require a permit modification per IDAPA regulations at 58.01.01.200, et seq.

We appreciate your attention and efforts on this important project. For any questions that may arise, please call me at (208) 526-0561 or Doug Nishimoto (SAIC) at (208) 528-2121.

Sincerely,

Ralph W. Russell, Air Quality Lead
Environmental Technical
Services Division

Enclosure

cc: M. Simon, DEQ
F. Hughes, BNFL Inc.
M. Bonkoski, DOE-ID
G. Beausoleil, DOE-ID
D. Nishimoto, SAIC
R. Guymon, BBWI

Structural Changes Planned for the Transuranic Storage Area–Retrieval Enclosure

In December 1990, the Idaho Division (now Department) of Environmental Quality (DEQ) issued a permit to construct (PTC) for the Transuranic Storage Area Retrieval Enclosure (TSA-RE), plus the Transuranic Waste Storage Facility (WSF), based on a permit application submitted in February 1990 (*Prevention of Significant Deterioration Permit Application for the TSA Retrieval Enclosure and TRU Waste Storage Facility*). That application described the then-planned facility and outlined a proposed retrieval strategy. Revised emissions information for radionuclide and hazardous releases are documented in two subsequent requests for modification/modifications of the permit (January 10, 1997 and March 27, 2000). Recovery of the retrievably stored waste at TSA-RE is part of the overall Advanced Mixed Waste Treatment Project, under the operation of BNFL Inc. Transfer of operational control of the TSA-RE is planned for February 5, 2001.

The current plans for removal of the berm soil are similar to those outlined in the 1990 application, with the addition of a portable conveyor system to remove overburden soil to transport vehicles located outside the building. This document briefly describes the TSA-RE and removal of soil, and lists the modifications that BNFL Inc. plans to make to the TSA-RE structure to accommodate the soil conveyor system. The modifications do not affect the nature or amount of emissions at the facility. Construction is expected to begin immediately upon transfer of the TSA-RE to BNFL Inc. control.

Facility description: The TSA-RE (WMF-636) is an existing engineered metal building that encloses earthen covered stacks of retrievably stored transuranic and alpha low-level mixed waste. These wastes are to be processed in the Advanced Mixed Waste Treatment Facility (AMWTF) for subsequent transfer to the Waste Isolation Pilot Plant (WIPP) for disposal. The retrieval enclosure encompasses approximately 313,000 ft^2 (29,000 m^2) and encloses three asphalt storage pads, TSA-1, TSA-2, and TSA-R (see drawing on page 4). The part of the building that extends over the TSA-R and TSA-1 pads is 200 ft (61 m) wide by 1,175 ft (358 m) long with an average height of 30 to 35 ft (9.1 to 11 m). The adjacent portion that extends over TSA-2 is 184 by 425 ft (56.1 by 130 m).

During operation, the retrieval enclosure will contain radiation control areas. Exposed work faces will be established as controlled areas and access will be restricted to trained workers. Additional controlled areas can be established within the work area using temporary soft-walled containment structures. These structures have their own HEPA-filtered ventilation systems and will be used to overpack leaking or damaged containers or to decontaminate containers or work areas as necessary. Monitoring for radiological and hazardous material contamination will be performed in the controlled areas. The two moveable shrouds, currently located at TSA-R Pad, will not be used at TSA Pad 1 or Pad 2 as described in the original application. The shrouds do not factor into particulate emissions estimates herein.

Removal of soil. Soil will be characterized before removal. A relatively small amount (about 2,000 m^3) is estimated to be contaminated. Contaminated soil is removed using a portable, HEPA-filtered vacuum system and discharged into clean 55-gal drums. The majority of the overburden soil (estimated as 95% by volume) is expected to be clean (uncontaminated) and will be removed using skid loaders, the portable conveyor system, and an existing trailer-mounted diesel-operated vacuum system (the Guzzler) located outside the TSA-RE (see the request for modification, submitted October 1998).

Initially, the bulk of the soil overburden is removed and carried across the top of the waste stacks using the skid loaders. This is done to mine a flat area for installing the portable conveyor system on top of the waste stack. Once the conveyor is installed, the skid loaders transfer the excavated soil to the conveyor system via two loading hoppers. The conveyor then moves the soil over the waste stack, through a penetration in the TSA-RE wall, and into a discharge chute for transfer into a standard dump truck for final disposal. The final 6 to 12 in. (15 to 30 cm) of overburden soil will be removed and transferred into the dump truck with the Guzzler. Side burden and firebreak soil (if determined to be uncontaminated) will be removed using either the conveyor system/truck load-out or a direct truck load-out in which skid loaders deposit the soil directly into a truck/trailer located within the TSA-RE. The process of soil removal will be intermittent, with removal activities estimated to occur for about 2-3 weeks in 6-month periods of time. The conveyor will be moved to a new location (six locations are planned) after overburden and side-burden soil in an area is removed.

Both conveyor loading hoppers are equipped with flexible skirting, such that, the soil transfer to the conveyor is contained, providing control of particulate release to the surrounding area. Plus, the hoppers are equipped with dust suppression systems that pull the particulate-laden air through fabric filters. Particulate accumulated on a fabric filter is collected in a clean 55-gal drum, and the dust-free air is exhausted back into the building. Dust is suppressed on the berm by spraying water and/or surfactant directly onto the soil. This, along with the use of minimal conveyor speeds, minimizes dust resuspension during conveyor transfer of the soil. The portion of the conveyor system exiting the TSA-RE building is fully enclosed to mitigate airborne release of soil. The discharge chute is equipped with a sock, which minimizes pluming of the soil during truck loading.

Evaluation of potential for emissions change: In the original application, calculations for particulate matter emissions (associated with removal of the earthen berm) were calculated by first estimating the mass of soil to be removed daily (4.4×10^4 pounds of soil per day), then applying a resuspension factor[1] of 1×10^{-3} (0.1%) taking no credit for dust suppression. This results in an estimated 4.35 ton/yr rate for particulate emission (the

[1] The original application cites P.G. Shaw and G.G. Loomis, Plutonium Contamination Control Studies During A Glove Box Scale Simulated Excavation of TRU Buried Waste, EG&G Idaho Inc., October, 1988.

significant rate per IDAPA 58.01.01.006 for PM-10[2] emissions is 15 ton/yr). The resuspension factor is conservative by an order of magnitude when compared to an equally viable factor used for cement unloading to an elevated storage silo (0.27 lb particulate emitted per ton processed, or 0.014%)[3]. The description of retrieval in the original application is brief, but (for clean soil) is based on using " ... a track mounted excavator ... to remove clean soil in bulk and place it in a bottom-dump trailer for disposal." Compared to the method that will be used for most soil removal under the new plan, including active dust suppression at the berm, conveyor hoppers, and load chute, it is expected that particulate generation associated with soil removal will be less than that described in the original application. Thus, the estimate in the original application is bounding for the revised plan, the planned modifications do not affect (increase) the nature or amount of emissions at the facility, and a PTC modification for the conveyor penetrations and other physical changes to the RE is not required.

Synopsis of planned physical changes: To perform retrieval as described above, six reclaim conveyor wall penetrations will be installed, two on the East wall of Pad 2, and four penetrations on the West wall of Pad 1 (see figure following). The openings, which will measure about 7 ft in height and approximately 6 ft wide, will be sealed when the conveyor is not in place.

Other planned modifications include:

- Install concrete footings to support the reclaim conveyor load-out section (located outside of the RE).
- Install three (3) light bridge cranes in addition to the existing cranes. Two (2) will be in the Pad 2 area and one (1) in the Pad 1 area.
- Fabricate and install movable ventilation duct to provide industrial ventilation in Pad 1 and Pad 2 areas. The existing ventilation system will be used to ventilate the RE.
- Install electrical gear to provide power to the soil and drum conveyors and soil conveyor dust collection system. There will be three (3) different locations for the drum conveyor system (1 at Pad 2 and 2 at Pad 1).

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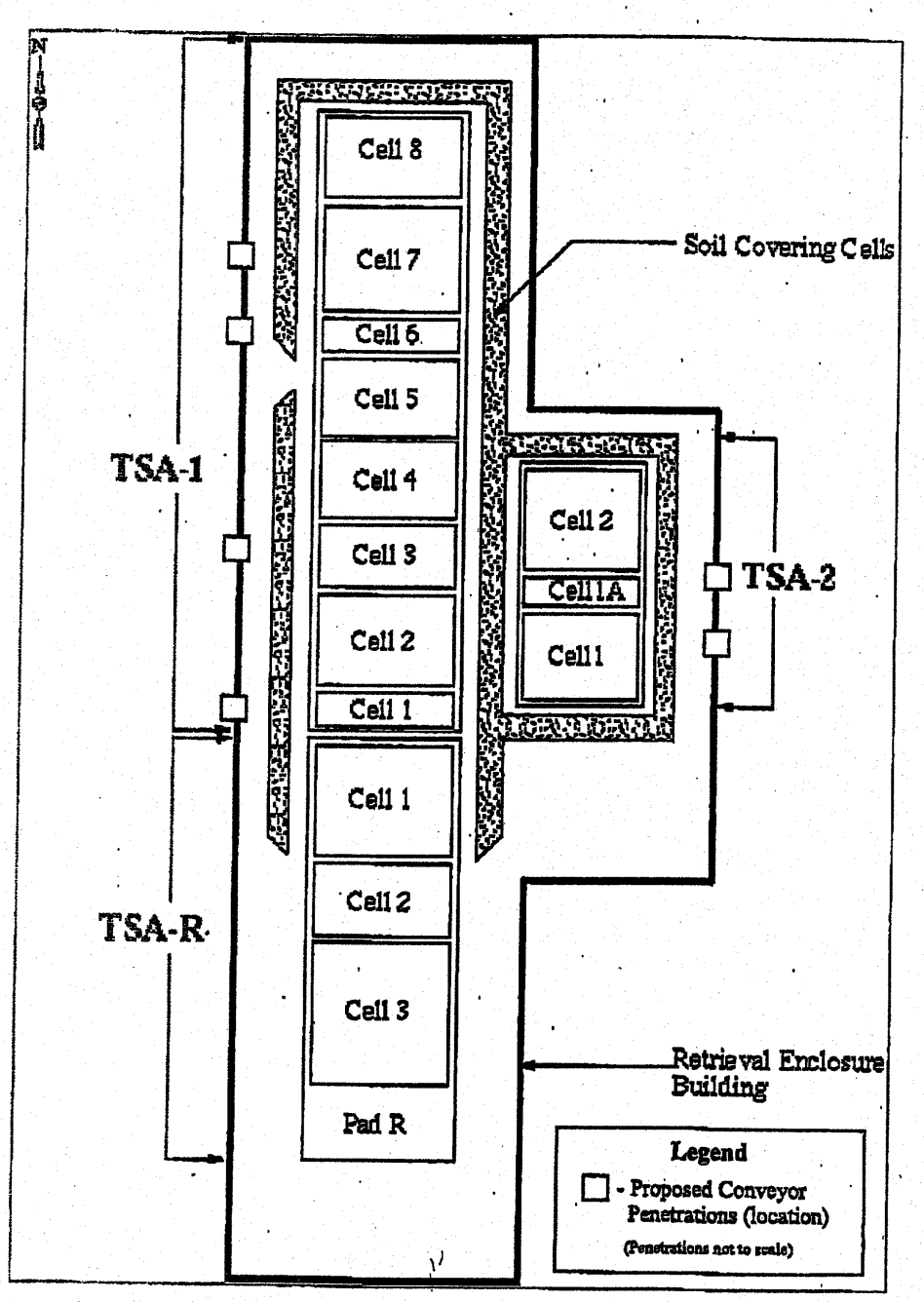
[2] PM-10 is particulate with a diameter of 10 μm or less. All particulate has been assumed to be PM-10.

[3] The emission factor for cement unloading is from the EPA Office of Air Quality Compilation of Air Pollutant Emission Factors, AP-42, January 1995, Table 11.12-2: Emission Factors for Concrete Batching.


N
Cell 8
Cell 7
Cell 6
Cell 5
Cell 4
Cell 3
Cell 2
Cell 1
Cell 1
Cell 2
Cell 3
Pad R
Soil Covering Cells
TSA-1
TSA-R
Cell 2
Cell 1A
Cell 1
TSA-2
Retrieval Enclosure Building
Legend
- Proposed Conveyor Penetrations (location)
(Penetrations not to scale)

Appendix E

Permit-Radioactive Waste Management Complex, PTC No. 023-00001 –Transuranic Storage Area Retrieval Enclosure

CCN: 00-014622

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

900 North Skyline, Suite B • Idaho Falls, Idaho 83402-1718 • (208) 528-2650

Dirk Kempthorne, Governor
C. Stephen Allred, Director

October 13, 2000

CERTIFIED MAIL 70000520001570572391

James F. Graham, Manager
Air/Water/NEPA
Policy and Permitting Department
Bechtel (BWXT) Idaho LLC
P.O. Box 1625
Mail Stop 3200
Idaho Falls, ID 83415-3200

RE: P-990135, INEEL, Idaho Falls
(Radioactive Waste Management Complex, PTC No. 023-00001)

Dear Mr. Graham:

The following are some of the main events taken place in the Process of your application:

- October 18, 1999, the Idaho Department of Environmental Quality (DEQ) received a Permit to Construct (PTC) application from INEEL for modifications at the Radioactive Waste Management Complex (RWMC).
- November 17, 1999, the application was determined complete.
- March 27, 2000 DEQ issued PTC based on review of your application and all applicable state and federal rules and regulations. On this date DEQ determined that this project meets the provisions of IDAPA 58.01.01.200 (*Rules for the Control of Air Pollution in Idaho*).
- September 26, 2000, DEQ received request for administrative admendment to PTC 023-00001. Enclosed is the final PTC 023-0001 with the corrections requested.

This PTC supersedes any previous PTC 023-00001 issued by DEQ for the RWMC RE and WSF. This permit does not release the permittee from compliance with all other applicable federal, state, local, or tribal laws, regulations, or ordinances. Please pay particular attention to the reporting requirements contained in Paragraph E of the General Provisions section of the permit. This information is needed to properly track the progress of the permit. Please refer to the appropriate permit number when submitting reports required in the Reporting Requirements section of the permit.

You, as well as any other entity, may have the right to appeal this final agency action pursuant to the Idaho Department of Health and Welfare Rules, Title 5, Chapter 3, "Rules Governing Contested Case Proceedings and Declaratory Rulings," by filing a petition with the Hearings Coordinator, Department of Health and Welfare, Administrative Procedures Section, 450 West State Street, Tenth Floor, Boise, Idaho 83720-5450, within thirty-five (35) days of the date of this decision. However, DEQ encourages you to contact the Air Quality Permit Program to address any concerns you may have with the enclosed permit prior to filing a petition for a contested case.

If you have any questions regarding the terms or conditions of the enclosed permit, please contact Rensay Owen or Jorge Garcia at (208)528-2650.

Sincerely,

James Johnston
Administrator
Idaho Falls Regional Office

JJ/DH: ty 87135 J:\XFER\AIR_PERM\IFRO\PTC\INEEL\RWMC\990135.PL

Enclosures

cc Database/Source File (023-00001)
Idaho Falls RO source file
L. Kral, EPA Region 10

STATE OF IDAHO

PERMIT TO CONSTRUCT AN AIR POLLUTION EMITTING SOURCE

PERMIT NUMBER 0 2 3 - 0 0 0 0 1

AQCR 0 6 1 **CLASS** A 1 **SIC** 9 9 9 9

ZONE 1 2 **UTM COORDINATE (km)** 3 3 5 . 1 , 4 8 1 8 . 2

1. PERMITTEE

Department of Energy / Idaho National Engineering and Environmental Laboratory / Radioactive Waste Management Complex

2. PROJECT

Transuranic Storage Area Retrieval Enclosure

3. MAILING ADDRESS	CITY	STATE	ZIP CODE
850 Energy Drive	Idaho Falls	ID	83401

4. SITE LOCATION COUNTY	NO. OF FULL-TIME EMPLOYEES	PROPERTY AREA AT SITE (Acreage)
Butte	8,100	569,000

5. PERSON TO CONTACT	TITLE	TELEPHONE
Richard C. Cullison	Manager, DOE Environmental Programs	208-526-2181

6. EXACT PLANT LOCATION

INEEL, Scoville, ID, Latitude North 43° 30' 02.56" :Longitude West 113° 02' 24'6" UTM Coordinates N 4, 818, 226.5 meters and E 335, 059.2 meters

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Government research and support facilities.

8. GENERAL CONDITIONS

This permit is issued according to the *Rules for the Control of Air Pollution in Idaho*, Section 16.01.01.200, and pertains only to emissions of air contaminants that are regulated by the State of Idaho and to the sources specifically allowed to be constructed by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located, (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment, (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances, (d) in no manner implies or suggests that the Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ) or its officers, agents, or employees, assumes any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit is not transferable to another person, place, piece or set of equipment. This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require Department approval pursuant to the *Rules for the Control of Air Pollution in Idaho,* IDAPA 16.01.01.200, et.seq.

ADMINISTRATOR
DIVISION OF ENVIRONMENTAL QUALITY
IDAHO FALLS REGIONAL OFFICE

DATE: October 13, 2000

PERMIT TO CONSTRUCT PERMITTEE, PROJECT, AND LOCATION	PERMIT NUMBER
Department of Energy INEEL - RWMC Idaho Falls, ID	0 2 2 - 0 0 0 0 1
SOURCE	
Government research and support facilities.	

1. **EMISSION LIMITS**

1.1 Radionuclide emissions from the retrieval enclosure (RE) stack and the RE soil vacuum unit shall not, by themselves or, in combination with emissions from other INEEL sources, exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent in excess of ten (10) millirem in accordance with 40 CFR 61, Subpart H. Doses due to radon-220 and radon-222 and their respective decay products are excluded from this limit. The dose from aggregate RE ventilation stack and soil vacuum emissions shall not exceed the value listed in Appendix A of this Permit.

2. **OPERATING REQUIREMENTS**

2.1 This source shall operate within the requirements of the U.S. Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants for radionuclide emissions from Department of Energy facilities (Code of Federal Regulations, 40 Part 61.90).

2.2 Testable high efficiency particulate air (HEPA) filters efficiency shall be maintained at or above 99.97 percent removal efficiency as determined by guidelines of the American Society of Mechanical Engineers (ASME) N510, Section 10.

2.3 If the removal efficiency of the testable HEPA filter or HEPA filter bank falls below 99.97 percent as determined by the guidelines of ASME N510, Section 10, the testable HEPA filter or HEPA filter bank shall be isolated or replaced within 10 days until the required efficiency is achieved.

2.4 Each testable HEPA filter or filter bank shall be operated at a pressure drop that is limited to a maximum of 5.0 inches water column. If the total pressure drop across a HEPA filter or HEPA filter bank exceeds 5.0 inches water column, the permittee shall isolate it or replace it within 10 days.

2.5 Operators shall be alerted of a degraded HEPA filter (breached, plugged or leaking) by a monitor alarm or by a decrease in the differential pressure readings across the HEPA filter in accordance with the applicant's submittal.

2.6 Fugitive dust and radionuclide particulate from the disposed baghouse fines shall be placed in appropriate containers and disposed of properly, in accordance with the applicant's submittal.

2.7 The facility shall retrieve a maximum of 25,000 fifty-five gallon drum equivalents of contact handled (CH) waste per year.

DATE: 10/03/2000

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PERMIT TO CONSTRUCT PERMITTEE, PROJECT, AND LOCATION	PERMIT NUMBER
Department of Energy INEEL - RWMC Idaho Falls, ID	0 2 2 - 0 0 0 0 1
SOURCE	
Government research and support facilities.	

2.8 The gas burner heater for the retrieval enclosure (RE) shall operate within the following operating parameters:

2.8.1	Maximum Operating Time per year	2000 Hours
2.8.2	Maximum Fuel Consumption	34.3 GPH
2.8.3	Fuel for the gas burner heater shall be propane fuel.	

2.9 The emergency generator shall operate within the following operating parameters:

2.9.1	Maximum operating time per year	500 Hours
2.9.2	Maximum fuel consumption	40 GPH
2.9.3	Fuel for the emergency generator shall be Diesel #2 with a maximum sulfur content of 0.5 percent.	

2.10 The RE soil vacuum shall operate within the following parameters:

2.10.1	Maximum operating time per year	2700 Hours
2.10.2	Maximum fuel consumption	17.9 GPH
2.10.3	Fuel for the vacuum engine shall be Diesel #2 with a maximum sulfur content of 0.5 percent.	

3. MONITORING REQUIREMENTS

3.1 The permittee shall conduct an initial in-place efficiency test on the testable HEPA filters or filter bank within 90 days of startup, as applicable. Periodic in-place efficiency test shall be conducted thereafter at least once every twelve (12) months, per Nuclear Air Cleaning Handbook, ERDA 76-21, Section 8.3.5, "Frequency of Testing". Testing shall be conducted using guidelines of ASME N510, Section 10, "HEPA Filter Bank In-Place Test". In addition, after replacement or installation of a HEPA filter, an in-place efficiency test shall be conducted within 90 days of the date that the HEPA filter is placed in operation.

3.2 Pressure monitoring devices shall be installed to enable monitoring of pressure drop across the testable HEPA filters. The pressure drop monitoring equipment shall be maintained in good working order. Pressure drop shall be checked daily when the HEPA filters are in operation.

3.3 The permittee shall monitor and test emissions of radionuclides from the RE pursuant to Code of Federal Regulations, 40 Part 61.93.

DATE: 10/03/2000

DH/tk Q:\PERMITS\RWMC\990135.PTC

PERMIT TO CONSTRUCT PERMITTEE, PROJECT, AND LOCATION	PERMIT NUMBER
Department of Energy INEEL - RWMC Idaho Falls, ID	0 2 2 - 0 0 0 0 1
SOURCE	
Government research and support facilities.	

3.4 The permittee shall monitor and record the following:

3.4.1 The number of waste containers retrieved, and the number of breached waste containers;

3.4.2 Hours of operation and Fuel Consumption of the following:

a. Gas burner heating unit,

b. Emergency generator unit, and

c. The RE diesel vacuum unit.

4. REPORTING REQUIREMENTS

4.1 The permittee shall submit the following information to the DEQ in a yearly report (due January 31 after the end of each year).

4.1.1 The dates and results of all HEPA filter efficiency tests using the ASME N510, Section 10 guidelines.

4.1.2 The dates of replacement of HEPA filter elements.

4.1.3 All HEPA filter or HEPA filter bank alarms and a record of pressure readings over 5 inches water column.

4.2 The number of waste containers retrieved shall be recorded. Breached waste containers shall be identified by visual inspection. The number of breached waste containers and total waste containers retrieved each calendar year shall be submitted to the DEQ in a yearly report prior to January 31.

4.3 The permittee shall record the hours of operation and fuel consumption of all equipment listed in sections 2.8 to 2.10 of this PTC. The recorded data shall be submitted to the DEQ as part of the yearly report required in section 4.2 of this PTC.

DATE: 10/03/2000

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PERMIT TO CONSTRUCT PERMITTEE, PROJECT, AND LOCATION	PERMIT NUMBER
Department of Energy INEEL - RWMC Idaho Falls, ID	0 2 2 - 0 0 0 0 1

SOURCE

Government research and support facilities.

APPENDIX A

Idaho National Engineering and Environmental Laboratory

Radioactive Waste Management Complex

Transuranic Storage Area Retrieval Enclosure

Dose and Radionuclide Emissions Limits[a] -- Annual

SOURCE DESCRIPTION	RADIONUCLIDES mrem/yr
Retrieval Enclosure	0.01

a As determined by a pollutant specific U.S. EPA reference method, or DEQ approved alternative, or as determined by the DEQ's emission estimation methods used in this permit analysis.

DATE: 10/03/2000

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PERMIT TO CONSTRUCT GENERAL PROVISIONS

A. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the **Rules for the Control of Air Pollution in Idaho.** The emission of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the **Rules for the Control of Air Pollution in Idaho**, and the Environmental Protection and Health Act, Idaho Code 39-101, et.seq.

B. The permittee shall at all times (except as provided in the **Rules for the Control of Air Pollution in Idaho**) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.

C. The permittee shall allow the Director, and/or his authorized representative(s), upon the presentation of credentials:

1) To enter at reasonable times upon the premises where an emission source is located, or in which any records are required to be kept under the terms and conditions of this permit; and

2) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack emission testing in conformance with the DEQ's **Procedures Manual for Air Pollution Control** when deemed appropriate by the Director.

D. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.

E. The permittee shall notify the DEQ, in writing, of the required information for the following events within five working days after occurrence;

1) Initiation of Construction - Date
2) Completion/Cessation of Construction - Date
3) Actual Production Start up - Date
4) Initial Date of Achieving Maximum Production Rate - Production Rate and Date

F. If emission testing is specified, the permittee must schedule such testing within sixty (60) days after achieving the maximum production rate, but not later than one hundred and eighty (180) days after initial start up. Such testing must strictly adhere to the procedures outlined in the DEQ's **Procedures Manual for Air Pollution Control**, and shall not be conducted on weekends or state holidays without prior written DEQ approval. Testing procedures and specific time limitations may be modified by the DEQ by prior negotiation if conditions warrant adjustment. The DEQ shall be notified at least fifteen (15) days prior to the scheduled performance test. Any records or data generated as a result of such performance test shall be made available to the DEQ upon request.

The maximum allowable operating rate shall be limited to 120% of the average operating rate attained during the performance test period, unless (1) a more restrictive operating limit is specified elsewhere in this permit, or (2) at such an operating rate, emissions would exceed any emission limit(s) set forth in this permit.

G. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

DATE: 10/03/2000

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