



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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

January 12, 2018

Robert Boston
Deputy Manager, DOE – Idaho Operations Office
U S Dept. of Energy-INL
1955 Fremont Ave.
Idaho Falls, ID 83401

RE: Facility ID No. 023-00001, U S Dept. of Energy-INL, Scoville
Final Permit Letter

Dear Mr. Boston:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2015.0023 Project 61525 to U S Department of Energy-INL located near Scoville for a Facility Emissions Cap. This PTC is issued in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho) and is based on the certified information provided in your PTC application received May 15, 2017 and on all relevant comments received on DEQ's proposed permit during the public comment period.

This permit is effective immediately and replaces the following permits:

- PTC No. 011-00022, issued February 20, 2003 for the Utility Paint Spray Booth
- PTC No. P-2012.0053, issued September 18, 2012 for four boilers at Idaho Nuclear Technology and Engineering Center
- PTC No. P-2011.0092, issued October 18, 2011 for the Specific Manufacturing Capability (SMC)
- PTC P-2011.0109 issued July 31, 2013 for the Transuranic Storage Area – Retrieval Enclosure (TSA – RE)
- PTC P-023-0001 issued June 7, 2002 for the Advanced Mixed Waste Treatment Facility (AMWTF)
- PTC P-2013.0023 issued August 30, 2013 for the Sodium Distillation System
- PTC P-2008.0073 issued December 5, 1989 and revised June 10, 2008 for the Materials and Fuels Complex (MFC) Fuel Conditioning Facility (FCF)
- PTC P-2011.0113, issued January 31, 2012 for Materials and Fuels Complex (MFC) Irradiated Materials Characterization Laboratory (IMCL)
- PTC P-2011.0077 issued April 8, 2011 for the Materials and Fuels Complex (MFC) Fuel Manufacturing Facility (FMF)

This permit does not release U S Department of Energy-INL from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

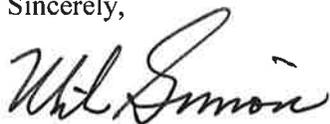
This permit is issued in accordance with the procedures and requirements for permits establishing a Facility Emissions Cap (FEC) and will expire five (5) years from the issuance date. Your renewal application shall be submitted in accordance with IDAPA 58.01.01.179.02.

As requested, concurrent with this permit issuance DEQ is canceling Tier I Operating Permit number T1-2009.0148 issued February 6, 2013; the terms and conditions shall no longer apply.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Rensay Owen, Regional Air Quality Manager, at (208) 528-2650 to review and discuss the terms and conditions of this permit. Should you choose to schedule this meeting, DEQ recommends that the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any other staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to contact Dan Pitman at (208) 373-0502 or daniel.pitman@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,



Mike Simon
Stationary Source Program Manager
Air Quality Division

MS\DP

Permit No. P-2015.0023 PROJ 61525

Enclosures

Air Quality

PERMIT TO CONSTRUCT

Permittee	U S Dept. of Energy - INL
Permit Number	P-2015.0023
Project ID	61525
Facility ID	023-00001
Facility Location	Hwy. 20/26 between Arco and Idaho Falls, and Hwy. 33 between Mud Lake and Arco Scoville, ID 83415

Permit Authority

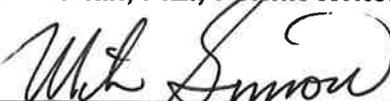
This permit (a) is issued according to the "Rules for the Control of Air Pollution in Idaho" (Rules), IDAPA 58.01.01.200-228; (b) pertains only to emissions of air contaminants regulated by the State of Idaho and to the sources specifically allowed to be constructed or modified by this permit; (c) has been granted on the basis of design information presented with the application; (d) does not affect the title of the premises upon which the equipment is to be located; (e) 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; (f) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; and (g) in no manner implies or suggests that the Idaho Department of Environmental Quality (DEQ) or its officers, agents, or employees assume 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. Changes in design, equipment, or operations may be considered a modification subject to DEQ review in accordance with IDAPA 58.01.01.200-228.

Date Issued January 12, 2018

Date Expires January 12, 2023



Dan Pitman, P.E., Permit Writer



Mike Simon, Stationary Source Manager

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1 Permit Scope

Purpose

- 1.1 This permit to construct (PTC) serves to limit facility-wide emissions below Tier I permitting thresholds so that the existing Tier I operating permit may be canceled.
- 1.2 This PTC incorporates Facility Emission Cap (FEC) permit conditions in accordance with IDAPA 58.01.01.176 through 181. The FEC permit conditions authorize changes to the facility that increase emissions of criteria pollutants and hazardous air pollutant for those changes that comply with the terms and conditions of this permit and that meet the requirements of IDAPA 58.01.01.181. The FEC permit conditions do not authorize modifications to the facility that affect toxic air pollutants, or radionuclides.
- 1.3 This PTC authorizes the operation of a 29.3 MMBtu/hr fuel oil fired boiler at the Naval Reactor Facility with emissions greater than below regulatory concern (BRC) exemption thresholds. No other specific changes to the facility were proposed.
- 1.4 This permit serves to cancel Permit to Construct No. P-000534, issued May 18, 2004 that allows for non-emergency use of large diesel generator engines at the Advanced Test Reactor (ATR) Complex (Units 674-M-6, 670-M-42 and 670-M-43). Consistent with the requirements of Consent Order Case No. E-2012.0012, dated March 27, 2013 the units shall now only operate as emergency stationary RICE as specified in this permit.
- 1.5 This PTC incorporates and replaces the following permits:
 - PTC No. 011-00022, issued February 20, 2003 for the Utility Paint Spray Booth
 - PTC No. P-2012.0053, issued September 18, 2012 for four boilers at Idaho Nuclear Technology and Engineering Center
 - PTC No. P-2011.0092, issued October 18, 2011 for the Specific Manufacturing Capability (SMC)
 - PTC P-2011.0109 issued July 31, 2013 for the Transuranic Storage Area – Retrieval Enclosure (TSA – RE)
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 - PTC P-2008.0073 issued December 5, 1989 and revised June 10, 2008 for the Materials and Fuels Complex (MFC) Fuel Conditioning Facility (FCF)
 - PTC P-2011.0113, issued January 31, 2012 for Materials and Fuels Complex (MFC) Irradiated Materials Characterization Laboratory (IMCL)
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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

ASTM	American Society for Testing and Materials
AMWTP	Advanced Mixed Waste Treatment Project
AMWTF	Advanced Mixed Waste Treatment Facility
ATR	Advanced Test Reactor
Btu	British thermal units
CCE	Contamination Control Enclosure
CEMS	continuous emission monitoring systems
CFR	Code of Federal Regulations
CI	compression ignition
CO	carbon monoxide
COMS	continuous opacity monitoring systems
CPP	Chemical Processing Plant
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
FAST	Fluorinel and Storage Facility
FCF	Fuel Conditioning Facility
FEC	Facility Emissions Cap
FFTF	Fast Flux Test Facility
FMF	Fuel Manufacturing Facility
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
HEPA	high efficiency particulate air
HRA	Hot repair area
HRF	Hot repair facility
ICE	internal combustion engines
IMCL	Irradiated Materials Characterization Laboratory
IWTU	Integrated Waste Treatment Facility
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
lb/hr	pounds per hour
MACT	Maximum Achievable Control Technology
MFC	Materials and Fuels Complex
MMBtu	million British thermal units
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NR	Non-road
NRF	Naval Reactor Facility
NSPS	New Source Performance Standards
NWCF	New Waste Calcining Facility
O&M	operation and maintenance
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers

PTC	permit to construct
RCE/ICE	Retrieval Contamination Enclosure/Inner Contamination Enclosure
RICE	reciprocating internal combustion engines
scf	standard cubic feet
SES	Safety Exhaust System
SI	Spark Ignition
SMC	Specific Manufacturing Capability
SO ₂	sulfur dioxide
SO _x	sulfur oxides
TAN	Test Area North
TSA-R	Transuranic Storage Area – Pad R
TSA-RE	Transuranic Storage Area Retrieval Enclosure
T/yr	tons per consecutive 12 calendar month period
VOC	volatile organic compounds

2 Facility Emissions Cap (FEC) Requirements

2.1 Process Description

This permit authorizes changes to the facility that increase emissions of criteria pollutants and hazardous air pollutant for those changes that comply with the terms and conditions of section 2.2 through 2.12 of this FEC permit and that meet the requirements of IDAPA 58.01.01.181.

This permit does not authorize modifications to the facility that affect toxic air pollutants, or radionuclides. Modifications to the facility that affect toxic air pollutant emissions, or radionuclides, shall either qualify and comply with the exemption criteria of IDAPA 58.01.01.220-223 or a permit shall be obtained authorizing the modification.

FEC Emission Limits

2.2 Facility-wide emissions from the US Department of Energy–INL facility shall not exceed any corresponding emissions rate limits listed in Table 2.1.

Table 2.1 Facility-wide Emission Limits^a

PM	PM ₁₀ ^b /PM _{2.5} ^c	SO ₂	NO _x	CO	VOC	Individual HAP	Aggregate HAP
T/yr ^d	T/yr ^d	T/yr ^d	T/yr ^d	T/yr ^d	T/yr ^d	T/yr ^d	T/yr ^d
6.6	5.6	16.9	95.0	17.7	3.7	< 10	< 25

a In absence of any other credible evidence, compliance is ensured by complying with permit operating, monitoring, and record keeping requirements.

b Particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers, including condensable particulate as defined in IDAPA 58.01.01.006.

c. Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers, including condensable particulate as defined in IDAPA 58.01.01.006.

d Tons per any consecutive 12-calendar month period.

Monitoring and Recordkeeping Requirements

2.3 For all pollutants listed in the FEC Emission Limits section of this permit, each calendar month the permittee shall calculate and record total facility-wide emissions that occurred during the previous consecutive 12 month period, including the individual and total HAP emissions. Emissions totals shall be available within 30 days of the end of each reporting period. Emission rates shall be recorded in units of tons per year. Records shall be maintained in accordance with General Provisions including but not limited to maintaining documentation of all emission factors and equations used to estimate emissions, maintain monitoring records of all fuel used in all stationary sources if fuel use is the basis for emission estimates, identifying the company or entity that performed the analyses, and documenting the analytical techniques or methods used. Emissions estimates for criteria air pollutants listed in Table 2.1 shall be based on the emissions factors and equations provided in the Excel spreadsheet received as part of the application for this FEC permit on October 4, 2016 titled “Baseline Actual Emissions 8-24-16”¹, or other methods may be used if approved by DEQ in writing. Emissions estimates for HAPs shall be based on the emissions factors and equations provided in the Excel spreadsheet received as part of the

¹ DEQ TRIM Record #2016AAG2081

application for this FEC permit on August 3, 2017 titled "2006-2016 HAP PTE 8-1-2017"² except that credit for carbon canister mercury emission control may be accounted for, or other methods may be used if approved by DEQ in writing. Emission estimates shall be documented with sufficient detail so that DEQ can verify the validity of the emission estimates. Records shall be maintained for a period of at least five years and shall be made available to DEQ representatives upon request.

Monitoring requirements shall include, but not be limited to:

- Monthly recording of the amount of fuel combusted in all stationary engines less than or equal to 600 horse-power in units of gallons per month unless emissions are estimated with factors based on hours of operation, in that case hours of operation shall be recorded;
- Monthly recording of the amount of fuel combusted in all stationary engines greater than 600 horse-power in units of gallons per month unless emissions are estimated with factors based on hours of operation, in that case hours of operation shall be recorded;
- Monthly recording of the hours of operation of all stationary engines, and mobile engines located within the RCE/ICE or TSA-R CCE of the TSA-RE, for which emission estimates are based on hours of operation or presume that the equipment operated every hour of the month when calculating emissions.
- Monthly recording of the gallons of propane combusted in all propane fired boilers in units of gallons per month;
- Monthly recording of the gallons of diesel fuel combusted in all boilers in units of gallons per month;
- Monthly maintaining a copy of the most recent NOx source test result in units of pounds per hour for the Integrated Waste Treatment Unit (IWTU), along with documentation that the test was conducted at worst case normal operations as specified by IDAPA 58.01.01.157.02, and monitoring the monthly hours of operation of the IWTU;
- Monthly recording of the hours of operation of mobile equipment within the Transuranic Storage Area Retrieval Enclosure (TSA-RE) or presume that the equipment operated every hour of the month when calculating emissions;

2.4 The permittee shall maintain a list of all stationary sources at the facility that emit FEC pollutants listed in Table 2.1. The list shall include identification of:

- If source was included in the permit application;
- If source was in service at time of permit issuance;
- Equipment location;
- Installation date, if installed after permit issuance;
- Date of removal, if removed after permit issuance; and

² DEQ TRIM Record #2017AAG1557

- If equipment is subject to NSPS requirements (40 CFR 60), or NESHAP requirements (40 CFR 61 & 63).

FEC Permit Revisions

2.5 In accordance with IDAPA 58.01.01.180.01 a permit revision is required for the following:

- A change to existing monitoring, reporting or recordkeeping requirements in the permit establishing the FEC;
- A change to the FEC emission limits; or
- A change to the facility that would impose new requirements not included in the permit establishing the FEC.

Notice and Recordkeeping of Ambient Concentration Estimates

2.6 In accordance with IDAPA 58.01.01.181 this FEC permit authorizes changes that comply with the terms and conditions establishing the FEC, but that are not included in the estimate of ambient concentration analysis approved for the permit establishing the FEC. No permit revision shall be required for facility changes implemented in accordance with the following:

2.6.1 For facility changes that comply with the terms and conditions establishing the FEC, but are not included in the estimate of ambient concentration analysis approved for the permit establishing the FEC, the permittee shall review the estimate of ambient concentration analysis.

2.6.2 In the event that the facility change would result in a significant contribution above the design concentration determined by the estimate of ambient concentration analysis approved for the permit establishing the FEC, but does not cause or significantly contribute to a violation to any ambient air quality standard, the permittee shall provide notice to the Department in accordance with Subsection 181.01.b.

2.6.3 Notice Procedures. The permittee may make a facility change under IDAPA 58.01.01.181 if the permittee provides written notification to the Department so that the notification is received at least seven days in advance of the proposed change or, in the event of an emergency, the permittee provides the notification so that it is received at least twenty-four hours in advance of the proposed change. For each such change, the written notification shall:

- Describe the proposed change;
- Describe and quantify expected emissions; and
- Provide the estimated ambient concentration analysis.

- 2.7 Recordkeeping. In accordance with IDAPA 58.01.01.181.02, for facility changes that comply with the terms and conditions establishing the FEC, but are not included in the estimate of ambient concentration analysis approved for the permit establishing the FEC, the permittee shall review the estimate of ambient concentration analysis. In the event the facility change would not result in a significant contribution above the design concentration determined by the estimate of ambient concentration analysis approved for the permit establishing the FEC, the permittee shall record and maintain documentation of the review on-site.
- 2.8 Estimates of Ambient Concentrations. In accordance with IDAPA 58.01.01.181.03, estimates of ambient concentrations shall be determined during the term of this permit using the same model and model parameters as used with the estimate of ambient concentration analysis approved for the permit establishing the FEC. The permittee shall include any changes to the facility that are not included in the originally approved estimate of ambient concentration analysis.

Reporting Requirements

- 2.9 Once per year, the permittee shall report to DEQ the 12-month total facility-wide criteria pollutant and HAP emissions recorded under the Criteria Pollutant Emissions Calculation and HAP Emissions calculations used to determine compliance with the criteria pollutant FEC and HAP FEC emission limits in Permit Condition 2.2. The report shall include, but is not limited to, all methods, equations, emissions factors, and sources for emissions factors not previously identified used to determine the 12-month total facility-wide criteria pollutant and HAP emissions. Records of the data (e.g. fuel use, hours of operation, etc.) used for determining the 12-month total facility-wide criteria pollutant and HAP emissions shall be submitted with the annual report. In addition, the permittee shall provide DEQ with the 12-month rolling emissions totals generated under the criteria pollutant emissions calculation and HAP emissions calculation for the reporting period.

Any changes in the List of Emissions Units required by Permit Condition 2.4 not identified in the previous annual report shall be identified and explained. The report shall be for the period January 1st through December 31st and shall be due on or before March 31 of each calendar year. All reports must be certified in accordance with IDAPA 58.01.01.123. The report shall be sent to DEQ at the following address:

Air Quality Stationary Source Division
Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706
Telephone: (208) 373-0502
Fax: (208) 373-0340

General FEC Conditions

2.10 Renewal

In accordance with IDAPA 58.01.01.179.02, the permittee shall submit a complete application for a renewal of the terms and conditions establishing the FEC at least six months before, but no earlier than 18 months before, the expiration date of the FEC conditions identified in this permit. To ensure that the term of the permit does not expire before the terms and conditions are renewed, the Permittee is encouraged to submit the application nine months prior to expiration.

In accordance with IDAPA 58.01.01.177, the permittee's renewal application for this permit must include the information required under Sections 176 through 181 and Subsections 177.01 through 177.03.

In accordance with IDAPA 58.01.01.177.02.d for a renewal of terms and conditions establishing a FEC, it is presumed that the previous FEC analysis is satisfactory, unless the Department determines otherwise.

3 Facility-wide Conditions

Fugitive Dust

- 3.1 All reasonable precautions shall be taken to prevent particulate matter from becoming airborne in accordance with the Rules for Control of Fugitive Dust IDAPA 58.01.01.650-651.
- 3.2 The permittee shall maintain records of all fugitive dust complaints received by the facility. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall, at a minimum, include the date each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.
- 3.3 The permittee shall conduct a quarterly facility-wide inspection of potential sources of fugitive dust emissions, during daylight hours and under normal operating conditions, to ensure that the methods used to reasonably control fugitive dust emissions are effective. If fugitive dust emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each quarterly fugitive dust emission inspection. The records shall, at a minimum, include the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive dust emissions were present (if observed), any corrective action taken in response to the fugitive dust emissions, and the date the corrective action was taken.

Notwithstanding IDAPA 58.01.01.157, no prior notification is required for inspections of potential sources of fugitive dust emissions required by this section of the permit.

Visible Emissions

- 3.4 No person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas are the only reason(s) for the failure of the emissions to comply with the requirements of this section.
- 3.5 The permittee shall conduct a quarterly facility-wide inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. Sources that are monitored using a continuous opacity monitoring system (COMS) are not required to comply with this permit condition. The inspection shall consist of a see/no see evaluation for each potential source of visible emissions. If any visible emissions are present from any point of emission, the permittee shall either:
 - a) take appropriate corrective action as expeditiously as practicable to eliminate the visible emissions. Within 24 hours of the initial see/no see evaluation and after the corrective action, the permittee shall conduct a see/no see evaluation of the emissions point in question. If the visible emissions are not eliminated, the permittee shall comply with b).or

- b) perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 readings shall be recorded when conducting the opacity test. If opacity is greater than 20%, as measured using Method 9, for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the excess emissions in accordance with IDAPA 58.01.01.130-136.

Notwithstanding IDAPA 58.01.01.157, no prior notification is required for inspections of potential sources of visible emissions required by this section of the permit.

Excess Emissions

Excess Emissions-General

- 3.6 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130–136 for excess emissions. The provisions of IDAPA 58.01.01.130–136 shall govern in the event of conflicts between the excess emissions facility wide conditions (Permit Conditions 3.6 through 3.10) and the regulations of IDAPA 58.01.01.130–136.

During an excess emissions event, the permittee shall, with all practicable speed, initiate and complete appropriate and reasonable action to correct the conditions causing the excess emissions event; to reduce the frequency of occurrence of such events; to minimize the amount by which the emission standard is exceeded; and shall, as provided below or upon request of DEQ, submit a full report of such occurrence, including a statement of all known causes, and of the scheduling and nature of the actions to be taken.

[IDAPA 58.01.01.132, 4/5/00]

Excess Emissions-Startup, Shutdown, and Scheduled Maintenance

- 3.7 In all cases where startup, shutdown, or scheduled maintenance of any equipment or emission unit is expected to result or results in an excess emissions event, the permittee shall demonstrate compliance with IDAPA 58.01.01.133.01(a) through (d), including, but not limited to, the following:
- Prohibiting any scheduled startup, shutdown, or maintenance resulting in excess emissions shall occur during any period in which an Atmospheric Stagnation Advisory or a Wood Stove Curtailment Advisory has been declared by DEQ.
 - Notifying DEQ of the excess emissions event as soon as reasonably possible, but no later than two hours prior to, the start of the event, unless the permittee demonstrates to DEQ's satisfaction that a shorter advance notice was necessary.
 - Reporting and recording the information required pursuant to the excess emissions reporting and recordkeeping requirements section of this permit and IDAPA 58.01.01.135 and 136 for each excess emissions event due to startup, shutdown, or scheduled maintenance.

Excess Emissions-Upset, Breakdown, or Safety Measures

- 3.8 In all cases where upset or breakdown of equipment or an emissions unit, or the initiation of safety measures, results or may result in an excess emissions event, the permittee shall demonstrate compliance with IDAPA 58.01.01.134.01(a) and (b) and the following:
- Immediately undertake all appropriate measures to reduce and, to the extent possible, eliminate excess emissions resulting from the event and to minimize the impact of such

- excess emissions on the ambient air quality and public health.
- Notify DEQ of any upset, breakdown, or safety event that results in excess emissions. Such notification shall identify the time, specific location, equipment or emissions unit involved, and (to the extent known) the cause(s) of the occurrence. The notification shall be given as soon as reasonably possible, but no later than 24 hours after the event, unless the permittee demonstrates to DEQ's satisfaction that the longer reporting period was necessary.
- Report and record the information required pursuant to the excess emissions reporting and recordkeeping section of this permit and IDAPA 58.01.01.135 and 136 for each excess emissions event caused by an upset, breakdown, or safety measure.
- During any period of excess emissions caused by upset, breakdown, or operation under facility safety measures, DEQ may require the permittee to immediately reduce or cease operation of the equipment or emissions unit causing the period until such time as the condition causing the excess has been corrected or brought under control. Such action by DEQ shall be taken upon consideration of the factors listed in IDAPA 58.01.01.134.03 and after consultation with the permittee.

Excess Emissions-Reporting and Recordkeeping

- 3.9 The permittee shall submit a written report to DEQ for each excess emissions event, no later than 15 days after the beginning of such an event. Each report shall contain the information specified in IDAPA 58.01.01.135.02.
- 3.10 The permittee shall maintain excess emissions records at the facility for the most recent five calendar-year period. The excess emissions records shall be made available to DEQ upon request and shall include the information requested by IDAPA 58.01.01.136.03(a) and (b) as summarized in the following:
- An excess emissions log book or record for each emissions unit or piece of equipment containing copies of all reports that have been submitted to DEQ pursuant to IDAPA 58.01.01.135 for the particular emissions unit or equipment; and
 - Copies of all startup, shutdown, and scheduled maintenance procedures and upset, breakdown, or safety preventative maintenance plans that have been developed by the permittee in accordance with IDAPA 58.01.01.133 and 134, and facility records as necessary to demonstrate compliance with such procedures and plans.

Open Burning

- 3.11 The permittee shall comply with the requirements of IDAPA 58.01.01.600-624, Rules for Control of Open Burning.

Fuel-Burning Equipment

- 3.12 The permittee shall not discharge to the atmosphere from any fuel-burning equipment particulate matter in excess of 0.015 grains per dry standard cubic foot (gr/dscf) of effluent gas corrected to 3% oxygen by volume for gas, or 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid.

Sulfur Content

- 3.13 The permittee shall not sell, distribute, use, or make available for use distillate fuel oil containing more than the following percentages of sulfur:

- ASTM Grade 1 fuel oil, 0.3% by weight
 - ASTM Grade 2 fuel oil, 0.5% by weight
- 3.14 Fuel oil combusted in stationary on-site boilers and stationary reciprocating internal combustion engines shall not contain more than 15 ppm of sulfur.
- 3.15 The permittee shall maintain documentation of supplier verification of fuel oil sulfur content on an as-received basis.

National Emission Standards for Emissions of Radionuclides other than Radon from Department of Energy Facilities – 40 CFR 61 Subpart H

- 3.16 In accordance with 40 CFR 61.92 emissions of radionuclides to the ambient air from Department of Energy facilities shall not exceed those amounts that would cause any member of the public to receive, in any year, an effective dose equivalent of 10 millirem per year (mrem/yr).
- 3.17 In accordance with 40 CFR 61.93, the permittee shall determine radionuclide emissions and calculate effective dose equivalent values to members of the public using EPA-approved methods.
- 3.18 The permittee shall comply with all applicable monitoring requirements of 40 CFR 61.93 including monitoring requirements of 40 CFR 61.93(e) which specifies Radionuclide emission measurements in conformance with the requirements of paragraph (b) or (c) of this section shall be made at all release points that have a potential to discharge radionuclides into the air in quantities that could cause an effective dose equivalent in excess of 1% of the standard. All radionuclides that could contribute greater than 10% of the potential effective dose equivalent for a release point shall be measured. With prior EPA approval, DOE may determine these emissions through alternative procedures. For other release points that have a potential to release radionuclides into the air, periodic confirmatory measurements shall be made to verify the low emissions. In accordance with 40 CFR 61.93 continuous monitoring shall occur from the sources listed in Table 3.1.

Table 3.1 Continuous Emission Monitoring Requirements

Facility	Emissions Units/Processes	Operating Condition
AMWTP	TSA-RE	The permittee shall have in place, calibrated, and operating, an in-stack continuous emission monitoring system (CEMS) for the measurement of radionuclides in the stack that exhausts to the atmosphere from the RCE/ICE and TSA-R CCE.
AMWTP	Advanced Mixed Waste Treatment Facility (AMWTF)	The permittee shall have in place, calibrated, and operating, an in-stack continuous emission monitoring system (CEMS) for the measurement of radionuclides in the stack that exhausts to the atmosphere from the Zone 3 and Glovebox Ventilation System.
INTEC	FAST, CPP-666	The permittee shall have in place, calibrated, and operating, an in-stack continuous emission monitoring system (CEMS) for the measurement of radionuclides from the CPP-767-001 exhaust stack.
MFC	Fuel Manufacturing Facility (FMF)	When handling fuel outside its primary container, the permittee shall have in place, calibrated, and operating, an in-stack continuous emission monitoring system (CEMS) for the measurement of radionuclides from the FMF Stack.
MFC	Irradiated Materials Characterization Laboratory (IMCL)	When handling nuclear material samples outside their primary containers, the permittee shall have in place, calibrated, and operating, an in-stack continuous emission monitoring system (CEMS) for the measurement of radionuclides from the IMCL

Facility	Emissions Units/Processes	Operating Condition
MFC	Fuel Conditioning Facility (FCF) - Building Maintenance Activities in Low-Level Contamination Areas	exhaust stack. Whenever the facility is operating, the permittee shall have in place, calibrated, and operating, an in-stack continuous emission monitoring system (CEMS) for the measurement of radionuclides from the MFC main stack.
MFC	FCF – Air Cell System (fuel assembly disassembly in cell, combined with emissions from hot repair facility (HRF), hot repair area (HRA), subcell D, glove boxes, air hoods, and other contaminated areas within the building.	Whenever the facility is operating, the permittee shall have in place, calibrated, and operating, an in-stack continuous emission monitoring system (CEMS) for the measurement of radionuclides from the MFC main stack.
MFC	FCF –Argon Cell System (fuel element chopping, electrorefining process, waste preparation for disposal, fuel fabrication).	Whenever the facility is operating, the permittee shall have in place, calibrated, and operating, an in-stack continuous emission monitoring system (CEMS) for the measurement of radionuclides from the MFC main stack.

- 3.19 The permittee shall submit annual reports and maintain records documenting radionuclide emissions and effective dose equivalent values in accordance with 40 CFR 61.94 and 40 CFR 61.95.
- 3.20 In accordance with 40 CFR 61.96 the permittee shall follow all applicable requirements for obtaining EPA approval to construct or modify.

Who implements and enforces this subpart?

- 3.21 DEQ is not delegated this subpart. The requirements of this subpart are incorporated in this permit as reasonable permit conditions in accordance with IDAPA 58.01.01.211. All requests, reports, applications, submittals, and other communications associated with 40 CFR 61, Subpart H shall be submitted to:

Director Air and Waste
USEPA
1200 Sixth Avenue
Seattle, WA 98101

and

Idaho Falls Regional Office
Department of Environmental Quality
900 N. Skyline Drive, Suite B
Idaho Falls, ID 83402

- 3.22 Reserved
- 3.23 Reserved
- 3.24 Reserved

National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines – 40 CFR 63 Subpart ZZZZ

- 3.25 The permittee shall comply with provisions of 40 CFR 63 Subpart ZZZZ-National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, as applicable.

Subpart ZZZZ applies to each affected source that is any existing, new, or reconstructed stationary Reciprocating Internal Combustion Engine (RICE) located at a major or area source of HAP emissions. All stationary RICES at the facility are affected emissions units.

DEQ is not delegated this subpart. The requirements of this subpart are incorporated in this permit as reasonable permit conditions in accordance with IDAPA 58.01.01.211. All requests,

reports, applications, submittals, and other communications associated with 40 CFR 63, Subpart ZZZZ shall be submitted to:

Director Air and Waste
USEPA
1200 Sixth Avenue
Seattle, WA 98101

and Idaho Falls Regional Office
Department of Environmental Quality
900 N. Skyline Drive, Suite B
Idaho Falls, ID 83402

The stationary engines that must comply with 40 CFR 63 Subpart ZZZZ by meeting the requirements of another subpart are listed in Table 3.2, all other stationary engines at the time of permit issuance operate as emergency RICE.

Table 3.2 Engines that Meet 40 CFR 63 Subpart ZZZZ by a Meeting Another Regulation

Location	Manufacturer	Model	Hp	Fuel Type	Comply with 40 CFR Subpart ZZZZ by complying with...
ATR Complex	Clarke John Deere	Clarke JU6HUFAD98 John Deere 6068HFC48A Man. Year: 2009	315	Distillate	40 CFR 60 Subpart IIII
CFA	Cummins	QSL9-G2,NR3 Man. Year: 2010	345	Distillate	40 CFR 60 Subpart IIII
RWMC	Caterpillar	C9 Man. Year: 2011	398	Distillate	40 CFR 60 Subpart IIII
RWMC	Caterpillar	D100-6 Man. Year: 2010	157	Distillate	40 CFR 60 Subpart IIII
RWMC	Mitsubishi	S3L2 Man. Year: 2007	28	Distillate	40 CFR 60 Subpart IIII
RWMC	John Deere	JU6H-UF30 Man. Year: 2007	140	Distillate	40 CFR 60 Subpart IIII
MFC	Caterpillar	D-150-8 Man. Year: 2012	230	Distillate	40 CFR 60 Subpart IIII
RWMC	Generac	GENR-55201 Man. Year: 2010	15	Propane	40 CFR 60 Subpart JJJJ

3.26 40 CFR 63.6595(a) - Compliance Date for Affected Sources

In accordance with 40 CFR 63.6595(a), the permittee must comply with the applicable 40 CFR 63 Subpart ZZZZ emission limitations and operating limitations no later than the date(s) specified in §63.6595. Compression ignition RICE located at an area source of HAP emissions, must comply no later than May 3, 2013. Spark ignition RICE located at an area source of HAP emissions, must comply no later than October 19, 2013.

3.27 40 CFR 63.6640(f)– Operating Limitations

In accordance with 40 CFR 63.6640 (f) the permittee must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1), (f)(2) and (f)(4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1), (f)(2) and (f)(4) of this section, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (f)(1), (f)(2) and (f)(4) of this section, the engine will

not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

- (1) There is no time limit on the use of emergency stationary RICE in emergency situations.
- (2) The permittee may operate emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f) (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
 - (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
 - (iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Standards of Performance for New Stationary Compression Ignition (CI) Internal Combustion Engines (ICE) – 40 CFR 60 Subpart III

3.28 The permittee shall comply with 40 CFR 60 Subpart III-Standards of Performance for New Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), as applicable, and all applicable general provisions of 40 CFR 60 Subpart A.

DEQ is delegated this subpart. All requests, reports, applications, submittals, and other communications associated with 40 CFR 60, Subpart III shall be submitted to:

Idaho Falls Regional Office
 Department of Environmental Quality
 900 N. Skyline Drive, Suite B
 Idaho Falls, ID 83402

Table 3.3 lists all engines subject to 40 CFR 60 Subpart III. All engines are emergency engines.

Table 3.3 Engines Subject to 40 CFR Subpart III

Location	Manufacturer	Model	Hp	Cylinder Displacement (L)	Use
ATR Complex	Clarke John Deere	Clarke JU6HUFAD98 John Deere 6068HFC48A	315	1.13	Fire Water Pump

		Man. Year: 2009			
CFA	Cummins	QSL9-G2,NR3 Man. Year: 2010	345	1.5	Emergency
RWMC	Caterpillar	C9 Man. Year: 2011	398	1.47	Emergency
RWMC	Caterpillar	D100-6 Man. Year: 2010	157	1.1	Emergency
RWMC	Mitsubishi	S3L2 Man. Year: 2007	28	0.375	Emergency
RWMC	John Deere	JU6H-UF30 Man. Year: 2007	140	1.13	Fire Water Pump
MFC	Caterpillar	D-150-8 Man. Year: 2012	230	1.5	Emergency
AMWTP	John Deere	4045 HF285 Man. Year: 2008	115	1.13	Power for supplied breathing air trailer

3.29 **40 CFR 60.4207 – Fuel Requirements**

In accordance with 40 CFR 60.4207(b), fuel purchased on or after October 1, 2010 for use in the stationary CI ICE shall meet the following per-gallon standard [derived from 40 CFR 80.510(b)]:

- (1) Sulfur content.
 - (i) 15 ppm maximum for Nonroad (NR) diesel fuel.
- (2) Cetane index or aromatic content, as follows:
 - (i) A minimum cetane index of 40; or
 - (ii) A maximum aromatic content of 35 volume percent.

3.30 **40 CFR 60.4211 – Compliance Requirements**

- In accordance with 40 CFR 60.4211(a), the permittee must operate and maintain the stationary CI ICE and control device according to the manufacturer's emission-related written instructions. In addition, owners and operators change only those emission-related settings that are permitted by the manufacturer. The permittee must also meet the requirements of 40 CFR parts 89, and/or 1068, as they apply to the permittee.
- In accordance with 40 CFR 60.4211(c) the permittee must comply by purchasing an engine certified to the emission standards §60.4205(b) or §60.4205(c), as applicable. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g).
- In accordance with 40 CFR 60.4211(f) the permittee must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
 - (1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) The permittee may operate emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

3.31 **40 CFR 60.4218, General Provisions to NSPS 40 CFR 60 Subpart A**

- The permittee is not required to submit an initial notification as required in 40 CFR 60.7(a)(1) for the emergency stationary CI ICE, in accordance with 40 CFR 60.4214(b).
- The permittee shall comply with Table 8 to Subpart III of Part 60-Applicability of General Provisions to Subpart III.

Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines (ICE) – 40 CFR 60 Subpart JJJJ

3.32 In accordance with 40 CFR 60.4230 the provisions of this subpart are applicable owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in the following paragraphs. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after July 1, 2008, for engines with a maximum engine power less than 500 HP, in accordance with 40 CFR 60.4230(a)(4)(iii).

The provisions of §60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006, in accordance with 40 CFR 60.4230(a)(6).

Table 3.4 Affected Engine

Location	Manufacturer	Hp
RWMC	Generac Model: GENR-55201	15

- 3.33 In accordance with 40 CFR 60.4233(a) owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, must comply with the emission standards in §60.4231(a) for their stationary SI ICE.
- 3.34 In accordance with 40 CFR 60.4235 owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.
- 3.35 In accordance with 40 CFR 60.4236(a) after July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233.
- 3.36 In accordance with 40 CFR 60.4243 SI internal combustion engines that are manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), the permittee must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, the permittee must operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. The permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.
- 3.37 In accordance with 40 CFR 60.4243(d) if the permittee owns or operates an emergency stationary ICE, the permittee must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If permittee does not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) The permittee may operate emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing

authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Not applicable.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

3.38 In accordance with 40 CFR 60.4245 owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (3) of this section.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

Who implements and enforces this subpart?

DEQ is delegated this subpart. All requests, reports, applications, submittals, and other communications associated with 40 CFR 60, Subpart JJJJ shall be submitted to:

Idaho Falls Regional Office
Department of Environmental Quality
900 N. Skyline Drive, Suite B
Idaho Falls, ID 83402

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources – 40 CFR 63 Subpart JJJJJJ

Table 3.5 Affected Boilers

Operational Area	Rated Capacity (MMBtu/hr)	Manufacturer/Serial # Construction Year	Model	Fuel Type/Existing or New
CFA	1.5	Cleaver Brooks /4G016435 Construction Year: 1985	M4S 1500-100	#2 Diesel/Existing
CFA	2.1	Cleaver Brooks/L-83922 Construction Year: 1987	CB-101-50	#2 Diesel/Existing
INTEC	36.4	Cleaver Brooks/NB 10475 Construction Year: 2000	CBLE	#2 Diesel/Existing
INTEC	36.4	Cleaver Brooks/NB 10478 Construction Year: 2000	CBLE	#2 Diesel/Existing
INTEC	36.4	Cleaver Brooks/NB 10484 Construction Year: 2000	CBLE	#2 Diesel/Existing
INTEC	36.4	Cleaver Brooks/NB 10476 Construction Year: 2000	CBLE	#2 Diesel/Existing
NRF	52.4	Henry Vogt/none Construction Year: 1961	DT-99-95	#2 Diesel/Existing
NRF	52.4	Henry Vogt/none Construction Year: 1961	DT-99-95	#2 Diesel/Existing
NRF	29.3	Cleaver Brooks/T5086-1-1 Construction Year: 2016	CBR-101-700-250ST	#2 Diesel/New
SMC	25	Cleaver Brooks/L-81365 Construction Year: 1987	CB-500 (100)600-150	#2 Diesel/Existing
SMC	25	Cleaver Brooks/OLO444437 Construction Year: 1987	CB-500 (100)600-150	#2 Diesel/Existing

40 CFR 63.11201 Standards

3.39 In accordance with 40 CFR 63.11201(b) the permittee must comply with each work practice standard, emission reduction measure, and management practice specified in Table 2 to this subpart that applies to your boiler. An energy assessment completed on or after January 1, 2008 that meets or is amended to meet the energy assessment requirements in Table 2 to this subpart satisfies the energy assessment requirement. A facility that operates under an energy management program established through energy management systems compatible with ISO 50001, that includes the affected units, also satisfies the energy assessment requirement.

Table 2 to Subpart JJJJJJ of Part 63—Work Practice Standards, Emission Reduction Measures, and Management Practices

If your boiler is in this subcategory . . .	You must meet the following . . .
1. new oil-fired boilers (units with heat input capacity of 10 MMBtu/hr or greater)	Minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.
12. Existing oil-fired boilers with heat input capacity of equal to or less than 5 MMBtu/hr	Conduct an initial tune-up as specified in §63.11214, and conduct a tune-up of the boiler every 5 years as specified in §63.11223.
14. Existing coal-fired, biomass-fired, or	Conduct an initial tune-up as specified in §63.11214, and conduct a tune-up of the

oil-fired boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up	boiler every 5 years as specified in §63.11223.
15. New coal-fired, biomass-fired, or oil-fired boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up	Conduct a tune-up of the boiler every 5 years as specified in §63.11223.
16. Existing coal-fired, biomass-fired, or oil-fired boilers (units with heat input capacity of 10 MMBtu/hr and greater), not including limited-use boilers	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (1) to (4) appropriate for the on-site technical hours listed in §63.11237:
	(1) A visual inspection of the boiler system,
	(2) An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,
	(3) An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,
	(4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
	(5) A list of major energy conservation measures that are within the facility's control,
	(6) A list of the energy savings potential of the energy conservation measures identified, and
	(7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

In accordance with 40 CFR 63.11201(d) these standards apply at all times the affected boiler is operating, except during periods of startup and shutdown as defined in §63.11237, during which time you must comply only with Table 2 to this subpart.

40 CFR 63.11205 - What are the general requirements for complying with this subpart?

3.40 In accordance with 40 CFR 63.11205(a) at all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

40 CFR 63.11210 - What are the initial compliance requirements and by what date must I conduct them?

- 3.41 In accordance with 40 CFR 63.11210(j)(1) existing boilers must demonstrate compliance with subpart JJJJJ within 180 days of the later of March 21, 2014 or upon the existing major source commencing operation as an area source.

In accordance with 40 CFR 63.11210(j)(2) any new boiler at the existing source must demonstrate compliance with Subpart JJJJJ within 180 of the later of March 21, 2011 or startup.

In accordance with 40 CFR 63.11210(j)(3) notifications of such changes must be submitted according to §63.11225(g).

- 3.42 In accordance with 40 CFR 63.11210(f) for new oil-fired boilers that combust only ultra-low-sulfur fuel as defined in §63.11237, you are not subject to the PM emission limit in Table 1 of this subpart providing you monitor and record on a monthly basis the type of fuel combusted.
- 3.43 In accordance with 40 CFR 63.11210(g) for new affected boilers that have applicable work practice standards or management practices, the permittee is not required to complete an initial performance tune-up, but the permittee is required to complete the applicable biennial or 5-year tune-up as specified in §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new affected source.

40 CFR 63.11214 How does the permittee demonstrate initial compliance with the work practice standard, emission reduction measures, and management practice?

- 3.44 In accordance with 40 CFR 11214(b) for existing or new oil-fired boilers, the permittee must conduct a performance tune-up according to §63.11223(b) and, for existing boilers, the permittee must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the boiler.
- 3.45 In accordance with 40 CFR 11214(c) for an existing affected boiler with a heat input capacity of 10 million Btu per hour or greater, the permittee must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 to this subpart and is an accurate depiction of your facility.

40 CFR 63.11223 How does the permittee demonstrate continuous compliance with the work practice and management practice standards?

- 3.46 In accordance with 40 CFR 63.11223(a) for affected sources subject to the work practice standard or the management practices of a tune-up, the permittee must conduct a performance tune-up according to paragraph (b) of this section and keep records as required in §63.11225(c) to demonstrate continuous compliance. The permittee must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.
- 3.47 In accordance with 40 CFR 63.11223(b) except as specified 40 CFR 63.11223 (c) through (f), the permittee must conduct a tune-up of the boiler biennially to demonstrate continuous compliance

as specified in the following paragraphs (1) through (7). Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler.

- (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.
- (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
- (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.
- (4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
- (5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
- (6) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (b)(6)(i) through (iii) of this section.
 - (i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
 - (ii) A description of any corrective actions taken as a part of the tune-up of the boiler.
 - (iii) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
- (7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

3.48 In accordance with 40 CFR 40 CFR 63.11223(c) boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up must

conduct a tune-up of the boiler every 5 years as specified in paragraphs (1) through (7) of Permit Condition 3.47. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed boiler with an oxygen trim system, the first 5-year tune-up must be no later than 61 months after the initial startup. The permittee may delay the burner inspection specified by this permit and inspection of the system controlling the air-to-fuel ratio specified in this permit until the next scheduled unit shutdown, but the permittee must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.

- 3.49 In accordance with 40 CFR 40 CFR 63.11223(e) oil-fired boilers with a heat input capacity of equal to or less than 5 million Btu per hour must conduct a tune-up every 5 years as specified in paragraphs (1) through (7) of Permit Condition 3.47. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed oil-fired boiler with a heat input capacity of equal to or less than 5 million Btu per hour, the first 5-year tune-up must be no later than 61 months after the initial startup. The permittee may delay the burner inspection specified in this permit and inspection of the system controlling the air-to-fuel ratio specified in this permit until the next scheduled unit shutdown, but the permittee must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.

40 CFR 63.11225 What are the notification, reporting, and recordkeeping requirements?

- 3.50 The permittee must submit the notifications specified at 40 CFR 63.11225(a)(1) through (5) that apply to the permittee. Including:

- In accordance with 40 CFR 63.11225(a)(2) an Initial Notification must be submitted no later than January 20, 2014 or within 120 days after the source becomes subject to the standard.
- In accordance with 40 CFR 63.11225(a)(4) you must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in §63.11196. The permittee must submit the Notification of Compliance Status in accordance with paragraphs (i) and (vi) of this condition. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs (i) through (v) of this condition, as applicable, and signed by a responsible official.

(i) The permittee must submit the information required in §63.9(h)(2), except the information listed in §63.9(h)(2)(i)(B), (D), (E), and (F).

(ii) “This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler.”

(iii) “This facility has had an energy assessment performed according to §63.11214(c).”

(iv) Does not apply.

(v) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: “No secondary materials that are solid waste were combusted in any affected unit.”

(vi) The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in §63.13.

3.51 In accordance with 40 CFR 63.11225(b) the permittee must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (1) through (4) of this permit condition. The permittee must submit the report by March 15 if any instance described by paragraph (3) of this permit condition occurred. For boilers that are subject only to a requirement to conduct a biennial or 5-year tune-up according to §63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial or 5-year compliance report as specified in paragraphs (1) and (2) of this permit condition.

(1) Company name and address.

(2) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."

(ii) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit."

(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.

(4) The total fuel use by each affected boiler subject to an emission limit, for each calendar month within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by you or EPA through a petition process to be a non-waste under §241.3(c), whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of §241.3, and the total fuel usage amount with units of measure.

3.52 In accordance with 40 CFR 63.11225(c) the permittee must maintain the records specified in the following paragraphs.

- As required in §63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

- You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by §63.11214 and §63.11223 as specified in paragraphs (c)(2)(i) through (vi) of this section.
 - Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
 - For each boiler required to conduct an energy assessment, you must keep a copy of the energy assessment report.
- Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.
- Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

3.53 In accordance with 40 CFR 63.11225(d) records must be in a form suitable and readily available for expeditious review. The permittee must keep each record for 5 years following the date of each recorded action. The permittee must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The permittee may keep the records off site for the remaining 3 years.

3.54 Reserved.

40 CFR 63.11235 What parts of the General Provisions apply?

3.55 Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

40 CFR 63.11236 Who implements and enforces this subpart?

3.56 DEQ is not delegated this subpart. The requirements of this subpart are incorporated in this permit as reasonable permit conditions in accordance with IDAPA 58.01.01.211. All requests, reports, applications, submittals, and other communications associated with 40 CFR 63, Subpart JJJJJ shall be submitted to:

Director Air and Waste
USEPA
1200 Sixth Avenue
Seattle, WA 98101

and Idaho Falls Regional Office
Department of Environmental Quality
900 N. Skyline Drive, Suite B
Idaho Falls, ID 83402

Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units – 40 CFR 60 Subpart Dc

3.57 DEQ is delegated this subpart. All requests, reports, applications, submittals, and other communications associated with 40 CFR 60, Subpart Dc shall be submitted to:

Idaho Falls Regional Office
 Department of Environmental Quality
 900 N. Skyline Drive, Suite B
 Idaho Falls, ID 83402

Table 3.6 Affected Boilers

Operational Area	Rated Capacity (MMBtu/hr)	Manufacturer/Serial #	Model	Fuel Type
AMWTP	12.55	Seller Eng./11668	S-300-W	Propane
AMWTP	12.55	Seller Eng./11669	S-300-W	Propane
AMWTP	12.55	Seller Eng./11670	S-300-W	Propane
INTEC	36.4	Cleaver Brooks/NB 10475	CBLE	#2 Diesel
INTEC	36.4	Cleaver Brooks/NB 10478	CBLE	#2 Diesel
INTEC	36.4	Cleaver Brooks/NB 10484	CBLE	#2 Diesel
INTEC	36.4	Cleaver Brooks/NB 10476	CBLE	#2 Diesel
NRF	29.3	Cleaver Brooks/T5086-1-1	CBR-101-700-250ST	#2 Diesel

Standard for sulfur dioxide (SO₂)

- 3.58 In accordance with 40 CFR 60.42c(d), for sources that do not elect to conduct a performance test, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur.
- 3.59 In accordance with 40 CFR 60.42c(h) compliance with the fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier.
- 3.60 In accordance with 40 CFR 60.42c(i) the fuel sulfur limits apply at all times, including periods of startup, shutdown, and malfunction.

Standard for particulate matter (PM)

- 3.61 In accordance with 40 CFR 60.43c(c) on and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

In accordance with 40 CFR 60.43c(d) the PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

Compliance and performance test methods and procedures for sulfur dioxide

- 3.62 In accordance with 40 CFR 60.44c(h) where the permittee seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier.

Compliance and performance test methods and procedures for particulate matter

- 3.63 In accordance with 40 CFR 60.45c(a) an affected facility subject to the opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using Method 9.

Emission monitoring for particulate matter

- 3.64 In accordance with 40 CFR 60.47c(a) the owner or operator of an affected facility subject to an opacity standard in §60.43c(c) that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A-4 of this part and the procedures in §60.11 to demonstrate compliance with the applicable limit in §60.43c by April 29, 2011 and shall comply with either paragraphs (1), (2), or (3) of this section. The observation period for Method 9 of appendix A-4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (2) and (3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A-4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (1)(i) through (1)(iv) of this section, as determined by the most recent Method 9 of appendix A-4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later.

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 of this part performance tests, elect to perform

subsequent monitoring using Method 22 of appendix A-7 of this part according to the procedures specified in paragraphs (2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (i.e., 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (i.e., 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (i.e., 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in §60.45c(a)(8).

(ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

3.65 In accordance with 40 CFR 60.47c(f)(3) an owner or operator of an affected facility that is subject to an opacity standard in §60.43c(c) is not required to operate a COMS provided that the affected facility burns only gaseous fuels and/or fuel oils that contain no greater than 0.5 weight percent sulfur, and the owner or operator operates the unit according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under §60.48c(c).

Reporting and recordkeeping requirements

3.66 In accordance with 40 CFR 60.48c(a) the owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

3.67 In accordance with 40 CFR 60.48c(b) the owner or operator of each affected facility subject to the SO₂ emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests.

3.68 In accordance with 40 CFR 60.48c(c) in addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

- (i) Dates and time intervals of all opacity observation periods;
- (ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
- (iii) Copies of all visible emission observer opacity field data sheets.

(2) For each performance test conducted using Method 22 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

- (i) Dates and time intervals of all visible emissions observation periods;
- (ii) Name and affiliation for each visible emission observer participating in the performance test;
- (iii) Copies of all visible emission observer opacity field data sheets; and
- (iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator.

- 3.69 In accordance with 40 CFR 60.48c(d) the owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.
- 3.70 In accordance with 40 CFR 60.48c(e) the owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.
- Calendar dates covered in the reporting period.
 - Each 30-day average SO₂ emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.
 - If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described below. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.
 - Fuel supplier certification shall include the following information for distillate oil:
 - (i) The name of the oil supplier;
 - (ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and
 - (iii) The sulfur content or maximum sulfur content of the oil.
- 3.71 In accordance with 40 CFR 60.48c(g)(1) except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.
- (2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO₂ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.
- (3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO₂ standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

- 3.72 In accordance with 40 CFR 60.48c(i) all records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.
- 3.73 In accordance with 40 CFR 60.48c(j) the reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to DEQ and shall be postmarked by the 30th day following the end of the reporting period.

Incorporation of Federal Requirements by Reference

- 3.74 Unless expressly provided otherwise, any reference in this permit to any document identified in IDAPA 58.01.01.107.03 shall constitute the full incorporation into this permit of that document for the purposes of the reference, including any notes and appendices therein. Documents include, but are not limited to:
- Standards of Performance for New Stationary Sources (NSPS), 40 CFR Part 60 Subparts A, Dc, IIII, JJJJ
 - National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61 Subpart H & 40 CFR Part 63 Subparts ZZZZ and JJJJJ

For permit conditions referencing or cited in accordance with any document incorporated by reference (including permit conditions identified as NSPS or NESHAP), should there be any conflict between the requirements of the permit condition and the requirements of the document, the requirements of the document shall govern, including any amendments to that regulation.

HEPA Filter Requirements

- 3.75 All HEPA filters in the filtering systems required by this permit shall meet the following requirements.
- 3.76 New HEPA filters shall be tested by challenging the filters with particulates prior to installation. With the exception of the TAN 629-013 Phase I Stack HEPA filters, the HEPA filters shall be certified by the manufacturer or the permittee to be 99.97% efficient in removing a monodispersed 0.3 micron aerosol. Documentation that the filters were tested and that they are certified to a removal efficiency of 99.97% when tested using a monodispersed 0.3 micron aerosol shall remain on-site and shall be made available to Department representatives upon request. The TAN 629-013 Phase I Stack HEPA filters shall meet a control efficiency of 99% using the same methods.
- 3.77 Prior to placing new HEPA filters in service they shall be leak tested in place using an accepted test aerosol in accordance with ASME N510 and/or N511.
- 3.78 Periodic in place leak tests of HEPA filters shall occur using an accepted test aerosol in accordance with ASME N510 and/or N511. In place testing shall occur no less frequently than every 2 years.
- 3.79 The permittee shall install, maintain and operate instrumentation to measure the pressure drop across the HEPA filter(s).
- 3.80 HEPA filters shall be operated at or below their rated pressure drop, or the permittee shall remove

it from service or replace it within 10 calendar days.

- 3.81 When operating, the permittee shall monitor and record the pressure drop across process HEPA filters once per week.
- 3.82 Within 60 days of permit issuance the permittee shall maintain documentation to include, at minimum, written procedures that specify how the pressure drop across the filters will be measured and the conditions that require change out of the filters including the HEPA filters rated pressure drop.
- 3.83 HEPA filters systems shall be used to control emissions from the processes listed in Table 3.7.

Table 3.7 Processes with HEPA Filter Emissions Controls

Facility	Emissions Units / Processes	Emission Control Devices	Emission Points
AMWTP	TSA-RE - RCE/ICE and TSA-R CCE HEPA Filter System	HEPA filter system in series	WMF 636-002
AMWTP	Advanced Mixed Waste Treatment Facility (AMWTF) Zone 3 and Glovebox Ventilation System	Three stages of HEPA filter system in series. Each HEPA filter stage shall contain a minimum of two HEPA filters constructed in parallel; one filter shall be used to control emissions while the second filter is used as a backup.	WMF 676-002 & 003
INTEC	Fluorinel Dissolution Process and Fuel Storage (FAST) – Operation of the Sodium Distillation System (SDS) and mixed and remote-handled transuranic (RH-TRU) waste processing	Cell Off-Gas: two stages of HEPA filters Final HEPA Filters: four parallel filter banks	CPP-767-001
MFC	Fuel Manufacturing Facility (FMF)	Two HEPA filter banks in series Control	MFC-704-008 Gloveboxes and hoods at FMF
MFC	Irradiated Materials Characterization Laboratory (IMCL)	HEPA filter system	MFC-1729-001 Enclosures, Hoods and Gloveboxes at IMCL
MFC	Fuel Conditioning Facility (FCF) - Building Maintenance Activities in Low-Level Contamination Areas	HEPA filter	MFC-764-00 MFC Main Stack
MFC	FCF - Air Cell System (fuel assembly disassembly in cell, combined with emissions from hot repair facility (HRF), hot repair area (HRA), subcell D, glove boxes, air hoods, and other contaminated areas within the building.	Two-stage HEPA filter system	MFC-764-001 MFC Main Stack
MFC	FCF - Argon Cell System (fuel element chopping, electrorefining process, waste stream preparation for disposal fuel fabrication).	Two-stage HEPA filter system	MFC-764-00 MFC Main Stack
SMC	TAN 629-013 Phase I Stack ¹	HEPA filter bank	TAN 629-013 Phase I Stack
SMC	TAN 679-022, 023, 024; Phase II - North (3 stacks)	HEPA filter bank	TAN 679-022, 023, 024 Stacks
SMC	TAN 679-025, 026, 027; Phase II - South (3 stacks)	HEPA filter bank	TAN 679-025, 026, 027 Stacks
SMC	TAN 681-018 and TAN 681-020 - Process Reclamation Facility	HEPA filter bank	TAN 681-018 and TAN 681-020 Stacks

Note 1: TAN 629-013 Phase I Stack HEPA filters shall be maintained at 99% efficiency.

4 Utility Spray Paint Booth

4.1 Process Description

The utility paint booth is a maintenance paint booth and is not used as part of any production line. Items to be painted will vary in both material type and configuration. The source is located at the Materials and Fuels Complex (MFC).

4.2 Control Device Description

Emissions from the utility paint booth are controlled by a Binks cabinet type exhaust chamber with a particulate control efficiency of 87%.

4.3 Purpose

The purpose of this section of the permit is to incorporate and replace the requirements of Permit to Construct No. 011-0002, issued February 20, 2003.

As part of this initial FEC permit issuance there are no new or modified emissions units at the MFC.

Emission Limits

4.4 Emission Limits

The particulate matter (PM) and volatile organic compound (VOC) emissions from the utility paint spray booth stack shall not exceed any corresponding emissions rate limits listed in Table 4.1.

Table 4.1 Utility Paint Spray Booth Emissions^a Limits

Source Description	PM	VOC
	T/yr ^b	T/yr ^b
Utility Paint Spray Booth	0.2	0.8

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

^b tons per consecutive 12-month period

Operating Requirements

- 4.5 The permittee shall maintain and implement an O&M manual for the exhaust filter. This manual shall contain, at a minimum, the filter replacement schedule. The manual shall remain on-site and be made available to DEQ representatives upon request.
- 4.6 The utility paint spray booth shall not be operated unless all exhaust filters are in place and intact.
- 4.7 Only filters which have a manufacturer guarantee to remove at least 87% of particulate shall be used in the cabinet type exhaust chamber.
- 4.8 The permittee shall not use any paints or solvents with potential hourly toxic emission rates that are greater than screening emission rates listed in IDAPA 58.01.01.585 or 586 without prior Department approval.

Monitoring and Recordkeeping Requirements

- 4.9 The permittee shall perform a toxic emissions analysis on any paints and solvents used in the

booth. Records of all toxic analyses performed shall be maintained on-site and made available to Department representatives upon request. The records shall contain, at a minimum, the paint and solvent specifications and all of the calculations used to determine the hourly emission rates.

- 4.10 The permittee shall maintain records of the types, quantities, solids content, solvent content, and date of application for all paints and solvents used in the paint booth. The permittee shall calculate the total PM and VOC emissions for the previous month assuming all solvents are emitted to the atmosphere. Each month the total PM and VOC emissions that occurred during the previous consecutive 12-month period shall be recorded. Records shall be maintained in accordance with the General Provisions.

5 Chemical Processing Plant (CPP)-606 Boilers

5.1 Process Description

The primary purpose of the four boilers at CPP-606 is to provide steam for heating and process use for the Idaho Nuclear Technology and Engineering Center (INTEC) facility.

5.2 Control Device Descriptions

Emissions from the CPP-606 boilers are uncontrolled.

5.3 Purpose

The purpose of this section of the permit is to incorporate and replace the requirements of Permit to Construct No. P-2012.0053 issued September 18, 2012. As part of this initial FEC permit issuance there are no new or modified emissions units at the CPP.

In addition to complying with this section of the permit the permittee shall comply with the FEC limits included in Section 2 of this permit.

Regulated Sources

The following table lists all sources of regulated emissions in Section 5 of the permit.

Regulated Sources		
Permit Sections	Source	Control Equipment
5.4-5.6	Four 36.4 MMBtu/hr boilers, distillate fuel oil, located in Building: CPP-606	None

5.4 Emission Limits

The SO₂, and NO_x, emissions from the CPP-606 boiler stacks shall not exceed any corresponding emissions rate limits listed in the following table.

CPP-606 Boiler Emissions Limits*				
Source Description	SO ₂		NO _x	
	lb/hr	T/yr	lb/hr	T/yr
CPP-606 boilers	0.18	0.81	17.3	75.6

* The permittee shall not exceed the T/yr listed based on any consecutive 12-month period.

Operating Requirements

5.5 Boiler Fuel Throughput Limit

The total amount of boiler fuel combusted for all Building CPP-606 boilers shall not exceed 864 gallons per hour.

Monitoring and Recordkeeping Requirements

5.6 Boiler Fuel Throughput Monitoring

The total amount of boiler fuel combusted for all Building CPP-606 boilers shall be monitored and recorded once each calendar week in units of gallons per hour.

6 Integrated Waste Treatment Unit (IWTU)

6.1 Process Description

The Integrated Waste Treatment Unit (IWTU) is designed to treat liquid sodium bearing waste (SBW) and newly generated liquid waste (NGLW) to produce a solid treatment product for ultimate disposal. The IWTU will utilize steam reforming technology which includes a dual fluidized-bed process that uses superheated steam, carbon, and other additives to convert the SBW into a solid, granular treatment product that is packaged into canisters suitable for ultimate disposal. The system is designed to operate with a liquid feed rate that will not exceed 3.5 gallons per minute. The process is named the Integrated Waste Treatment Unit because two fluidized-bed steam reformers, the Denitration and Mineralization Reformer (DMR) and the Carbon Reduction Reformer (CRR), are integrated into a single treatment process with a common air pollution control system. The DMR, CRR and material transfer and loadout systems utilize filters that are integral to the processing system used to capture and package the solid treatment product; these filters are not part of the air pollution control system. The IWTU air pollution control system includes the Process HEPA Filter System (which is located downstream from the DMR and CRR).

6.2 Purpose

The purpose of this section of the permit is to incorporate new permit limits to assure compliance with one hour NO₂ ambient standards and to require carbon adsorption to control mercury emissions similar to the existing requirements in the RCRA permit. Permit to Construct No. P-2008.0199 issued May 3, 2007 and revised August 31, 2009 remains in place and is not superseded by this FEC permit.

The permittee has not proposed to modify the IWTU.

Emission Limits

6.3 NO_x Emissions Limit

The NO_x emissions from the IWTU stack shall not exceed 12.4 pounds per hour.

Operating Requirements

6.4 Throughput Limit

The throughput rate of liquid waste fed into the IWTU shall not exceed 210 gallons per hour.

6.5 Mercury Adsorbers

The permittee shall maintain, and operate two mercury adsorbers that use granulated activated carbon (GAC) beds to control mercury emissions from the IWTU. The permittee shall monitor for mercury breakthrough (i.e., perform process sampling) between the two beds once each month. When the mercury concentration in the offgas between the beds exceeds 50,000 µg/dscm (dry standard cubic meter) waste feed to the IWTU shall be halted and changeout of the spent GAC will commence.

Prior to IWTU startup after permit issuance with any waste or simulated waste that contains mercury the permittee shall develop and receive DEQ approval for a mercury breakthrough monitoring plan. The permittee may rely upon an approved mercury breakthrough monitoring plan in a Resource Conservation and Recovery Act (RCRA) permit provided that approved plan is submitted to DEQ's Air Quality Division.

6.6 NO_x Performance Test

Within 60 days of achieving maximum production rate of the IWTU, but not later than 180 days after initial startup of the source after permit issuance, the permittee shall conduct a performance test to measure NO_x emissions from the IWTU stack to demonstrate compliance with the NO_x pound per hour emission limit. The test may be performed before radioactive material is introduced into the IWTU using surrogate liquid feed (not radioactive) that is representative of the actual mixed waste liquid that will be processed by the IWTU. The test shall be conducted in accordance with the procedures outlined in 40 CFR 60, Appendix A, Method 7, or a DEQ-approved alternative. The test shall be performed in accordance with IDAPA 58.01.01.157 and PTC General Provisions. In addition, the following actions shall be taken during each performance test run and reported in the performance test report:

- The IWTU shall be operated at the worst case normal production rate during the performance test. A description of how this requirement was met shall be included in the performance test report.
- Visible emissions shall be observed and recorded using the methods specified in IDAPA 58.01.01.625.
- The processing rate of the IWTU shall be recorded in units of gallons per hour of waste fed into the unit.

Periodic performance testing for NO_x emissions from the IWTU stack shall be accomplished by the permittee as follows to demonstrate compliance with the pound per hour NO_x emission rate limit. If the NO_x measured during the most recent performance test is less than or equal to 50% the pound per hour limit, then the permittee shall conduct a performance test within three years from the most recent test date. If the NO_x measured in the most recent performance test is between 50% and 80% of pound per hour limit, then the permittee shall conduct a performance test within two years from the most recent test date. If the most recent test exceeds 80% of the pound per hour limit, a test shall be conducted within one year. All testing shall be in accordance with the General Provisions.

If the IWTU ceases operation after initial startup after permit issuance the permittee may seek to obtain approval from DEQ for an alternative testing schedule. Requests for an alternative testing schedule shall be submitted in writing.

6.7 Throughput Monitoring

The total gallons of liquid waste fed into the IWTU shall be monitored and recorded using a data logger at least hourly, in units of gallons per hour. All monitoring records shall be retained for a period of at least five years and shall be made available in either hard copy or electronic format to DEQ representatives upon request.

7 Test Area North – Specific Manufacturing Capability (TAN SMC)

7.1 Process Description

The following is a narrative description of the permitted emissions units at Test Area North (TAN) that are regulated in this section of the permit. This description is for informational purposes only.

Test Area North is in the northern part of the INL site and primarily consists of the Specific Manufacturing Capability (SMC) facility, along with a fire station and vehicle fueling station. A private contractor operates TAN on behalf of DOE-ID.

The SMC is a state-of-the-art research and manufacturing complex. The SMC includes a multiphased manufacturing operation that produces fabricated metal assemblies. Radionuclide emissions from SMC are generally limited to those present in depleted uranium. The SMC project supports two major process areas: (a) TAN 629 Fabrication and Assembly; and (b) TAN 679 Rolling Operations.

It is noted that when DEQ requests classified records, the records shall be made available only to DEQ representatives with appropriate national security clearances and a need to know, in accordance with federal regulations.

7.2 Purpose

The purpose of this section of the permit is to incorporate and replace the requirements of Permit to Construct No. P-2011.0092 issued October 18, 2011.

As part of this initial FEC permit issuance there are no new or modified emissions units at the SMC.

7.3 Control Device Descriptions

Table 7.1 Tan SMC Emissions Unit Description

Permit Section	Emissions Units / Processes	Emission Control Devices	Emission Points
3.12-3.17, 3.70-3.78	TAN 629-013 Phase I Stack ¹	HEPA filter	TAN 629-013 Phase I Stack
3.12-3.17, 3.70-3.78	TAN 679-022, 023, 024; Phase II – North (3 stacks)	HEPA filter	TAN 679-022, 023, 024
3.12-3.17, 3.70-3.78	TAN 679-025, 026, 027; Phase II – South (3 stacks)	HEPA filter	TAN 679-025, 026, 027
3.12-3.17, 3.70-3.78	TAN 681-018 and TAN 681-020 – Process Reclamation Facility	HEPA filter	TAN 681-018 and TAN 681-020 Stacks
3.35-3.52	TAN 679-067a, 25 MMBtu/hr Boiler	Good combustion Control	TAN 679-067a Boiler Stack
3.35-3.52	TAN 679-068, 25 MMBtu/hr Boiler	Good combustion Control	TAN 679-068 Boiler Stack
3.70-3.78	TAN 629-012, 014 – 2B Paint Process	Paint booth pre-filters and HEPA filter	TAN 629-012 and TAN 629-014 Stacks

Note 1: TAN 629-013 Phase I Stack HEPA filters shall be maintained at 99% efficiency.

Emission Limits

7.4 2B Paint Process Volatile Organic Compound (VOC) Limit

Emissions of VOC from the 2B Paint Process that vent to stacks TAN 629-012 and TAN 629-014 shall not exceed 4.1 tons per any consecutive 12-month period.

7.5 In absence of any other creditable evidence, compliance with emission limits is assured by complying with this permit's operating, monitoring and record keeping requirements.

Operating Requirements

7.6 Only distillate fuel oil, liquefied petroleum gas (LPG), or natural gas shall be combusted in SMC Boilers: TAN 679-067a (25 MMBtu/hr), and TAN 679-068 (25 MMBtu/hr). The TAN 679-067b (60 Horsepower) boiler shall not be operated.

Monitoring and Recordkeeping Requirements

7.7 Each month the permittee shall maintain a record of the quantity of each material used in the 2B Paint Process, including but not limited to pre-treatment wash primer, primer, topcoat, clear coat, catalyst, activator, hardener, and thinner/reducer and the quantities of VOCs contained in these materials.

7.8 Using the painting production records, each month the permittee shall calculate and record the VOC emissions per consecutive 12-month period from the 2B Paint Process that vent to stacks TAN 629-012 and TAN 629-014. All records shall be maintained in accordance with the General Provisions.

8 ATR Complex – Diesel Powered Generators

8.1 Purpose

The purpose of this Section of the permit is to limit the operation of the diesel-powered generators listed in Table 8.1 to emergency use only consistent with the requirements of Consent Order Case No. E-2012.0012, dated March 27, 2013.

As part of this initial FEC permit issuance there are no new or modified emissions units at the ATR Complex.

8.2 Emission Units

Table 8.1 Regulated Sources

Permit Section	Emissions Units / Processes	Control Devices
3.25-3.27 & 8.3	Unit ID: 670-M-42, diesel Powered Generator Manufacturer: Enterprise Engine and Machinery Co. Rating: 2,118 hp Model: DSQ-38; Serial Number: 63001	None
3.25-3.27 & 8.3	Unit ID: 670-M-43, diesel Powered Generator Manufacturer: Enterprise Engine and Machinery Co. Rating: 2,118 hp Model: DSQ-38; Serial Number: 63002	None
3.25-3.27 & 8.3	Unit ID: 674-M-6, diesel Powered Generator Manufacturer: Caterpillar Rating: 2,132 hp Model: 3516; Serial Number: 25Z00569	None

Operating Requirements

8.3 Emergency Use Only

The diesel powered generator engines listed in Table 8.1 shall only operate as emergency stationary RICE in accordance with 40 CFR 63.6640(f). The specific requirements of 40 CFR 63.6640(f) are included in the Facility-wide permit conditions under the heading “National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines – 40 CFR 63 Subpart ZZZZ.”

9 Transuranic Storage Area – Retrieval Enclosure (TSA-RE)

9.1 Process Description

Located on pad Transuranic Storage Area (TSA) Pad 1 in the TSA-Retrieval Enclosure (RE) is an enclosure that encompasses Cells 1, 2, and 3. This enclosure, the Retrieval Contamination Enclosure (RCE), also contain Inner Contamination Enclosure(s) (ICE) that are used for the treatment of wastes. Additionally, located on Pad TSA-R in the TSA-RE, the Contamination Control Enclosure (CCE) is used for the treatment of wastes. The RCE/ICE and TSA-R CCE are used to store, characterize, and treat radioactive-only waste and mixed waste. Wastes currently in storage at the AMWTP, as well as newly-generated waste and mixed waste, may be moved to, stored, characterized, and treated in the RCE/ICE and TSA-R CCE.

Purpose

The purpose of this section of the permit is to incorporate and replace the requirements of Permit to Construct No. P-2011.0109 issued July 31, 2013.

As part of this initial FEC permit issuance there are no new or modified emissions units at the TSA-RE.

9.2 Control Device Descriptions

Table 9.1 Regulated Sources Description

Permit Section	Source Descriptions	Emission Controls
9.5, 9.7, 9.10, 9.11, 3.12-3.17 & 3.70-3.78	TSA-RE Waste Treatment	HEPA Filter
9.3, 9.8, 9.9	Vehicle and Waste Treatment Operations inside the RCE/ICE and the TSA-R CCE at the TSA-RE; Includes but not limited to excavators, skid loaders, conveyors (if used), dump trucks and trailers	Reasonable control of fugitive dust (e.g., water or surfactant spray; shrouds; portable HEPA-filtered vacuums; access controls; use of radiological control areas; HEPA-filtered tents; operational, radiological and hazardous material control procedures; etc.)
3.21-3.23	TSA-RE Standby Generator, diesel-fired Caterpillar Model 3412, 500 kW output	Good combustion control
-	Propane-Fired Heaters (one unit rated at 150,000 Btu/hr & one unit rated at 75,000 Btu/hr)	Good combustion control
-	Propane-Fired Make-up Air Units (three units rated at 1.2 Million Btu/hr each)	Good combustion control

Emission Limits

9.3 Criteria Pollutant Emission Limits

Nitrogen oxides (NO_x) emissions from the mobile equipment operating within the RCE/ICE and TSA-R CCE at the TSA-RE shall not exceed:

- 7.5 pounds per hour;

- 33.0 tons per any consecutive 12-month period.

The NO_x limit applies to equipment used to move soil and retrieve/treat waste within the RCE/ICE at the TSA-RE.

- 9.4 In absence of any other credible evidence, compliance is assured by complying with permit operating, monitoring, and record keeping requirements.

Operating Requirements

9.5 Limits for TSA-RE Waste Retrieval and Waste Treatment

Retrieval of breached containers and treatment of waste containers (liquid treatment, physical sizing and/or repackaging) may be performed in any combination provided the Equivalent Emission Units (EEU) value calculated in accordance with Equation 1 is less than 752 per day. One (1) EEU is equal to the emissions associated with retrieval of one (1) 55-gallon drum when the emissions are controlled using three (3) stages of HEPA filtration.

Equation 1:

Definitions of incorporated variables (the number of containers shall be calculated in terms of 55-gallon drum equivalents [DE]):

- **re** is the number of containers, in drum equivalents, treated by repackaging and/or resizing in one day
- **li** is the number of containers, in drum equivalents, treated for liquids in one day
- **2h** is the sum of retrieval and treatment involving two stages of HEPA filtration:
- **2h = (3 x re) + (4 x li)**
- **3h** is the sum of retrieval and treatment involving three stages of HEPA filtration:
- **3h = (1 x re) + (3 x li)**
- Equivalent Emission Units (**EEU**):
- **EEU = 2h + 3h**

9.6 Heater Fuel

The permittee shall combust propane exclusively in the RCE/ICE and TSA-R CCE heaters and make-up air units.

9.7 RCE/ICE and TSA-R CCE Ventilation System

The permittee shall maintain the RCE/ICE ventilation system in operation while TSA-R CCE operations are occurring. If the RCE/ICE ventilation system is not operating, the TSA-R CCE shall not be in operation.

- 9.8 All diesel engines in mobile equipment used to move soil and move/treat waste within the TSA-RE shall be certified using EPA methods to emit no more than 1.52E-2 pounds of NO_x per horsepower-hour.

The total rated horsepower of all diesel powered mobile equipment operated at any one time within the TSA-RE shall not exceed 115 horsepower.

- 9.9 All propane engines in mobile equipment used to move soil and move/treat waste operated within the TSA-RE shall be certified using EPA methods to emit no more than 6.6E-3 pounds of NO_x per horsepower-hour.

The total rated horse-power of all propane powered mobile equipment operated at any one time within the TSA-RE shall not exceed 244 horsepower.

Monitoring and Recordkeeping Requirements

9.10 Waste Treatment Throughput Monitoring

The permittee shall monitor and record the following on a daily basis to demonstrate compliance with the corresponding operating limits:

- drum equivalents of contact-handled waste treated through liquid absorption, liquid neutralization, or liquid decanting per day inside the RCE/ICE or TSA-R CCE, accounting individually for those treated in areas with 2 stages of HEPA filtration and for those treated in areas with 3 stages of HEPA filtration;
- drum equivalents of contact handled waste treated through repackaging/resizing per day inside the RCE/ICE or TSA-R CCE, accounting individually for those treated in areas with 2 stages of HEPA filtration and for those treated in areas with 3 stages of HEPA filtration.

10 Advanced Mixed Waste Treatment Facility (AMWTF)

10.1 Process Description

The AMWTF is part of the AMWTP. The goal is to process the waste stored at the INL Radioactive Waste Management Transuranic Storage Area (TSA) to produce final waste forms certified for disposal.

A material transfer system is used to remotely convey waste containers, clear containers, and transfer containers filled with waste around the AMWTF in a safe and efficient manner.

Pretreatment within the AMWTF occurs primarily in box lines. Containers are filled with waste, lowered to the box line/drum conveyor areas, lidded, and transferred to downstream treatment areas.

A special case waste area includes a glovebox system consisting of a transfer glovebox, treatment glovebox, sampling glovebox, container-in-container glovebox, and bag-out transfer ports. The special case waste glovebox system interfaces with the material transfer system.

A drum repack system consists of a drum waste-handling enclosure (DWHE) and the drummed waste packaging glovebox (DWPG). The DWHE consists of a drum-opening station with a ventilation hood, sorting carts, drum lift/tipping equipment, various tools/equipment, an empty drum-crushing machine, and an area for staging waste drums. The DWPG portion of the drum repack system is used for repackaging waste into containers.

The supercompaction treatment area consists of the infeed glovebox, the supercompactor glovebox, and the postcompaction glovebox. Containers that are destined for supercompaction are conveyed to the infeed glovebox, where they are prepped (i.e. punctured) for supercompaction. From the infeed glovebox, containers enter the supercompactor, where they are compacted with a hydraulic press. Once supercompacted, the pucks are transferred to the postcompaction glovebox.

The post-compaction glovebox contains a puck staging area and a puck drum loading area. Once fully loaded, the puck drums are lidded and fed out of the postcompaction glovebox via conveyors to the clean staging area. From there, the containers are transferred out of the AMWTF.

The process section of the AMWTF is divided into three ventilation confinement zones to minimize the potential for air emissions. Air within the AMWTF generally flows from the outside through clean areas into Zone 1, then into Zone 2, and finally to Zone 3. Exhaust from Zone 3 is controlled by high-efficiency particulate air (HEPA) filters.

The facility operates three heating, ventilation, and air conditioning hot water boilers and one potable hot water heater.

10.2 Purpose

The purpose of this section of the permit is to incorporate and replace the requirements of Permit to Construct No. 023-0001 issued June 7, 2002.

As part of this initial FEC permit issuance there are no new or modified emissions units at the AMWTF.

Operating Requirements

10.3 Facility Waste Throughput Limit

The permittee shall not process more than 85,000 m³ of waste stored at INL without prior Department approval.

10.4 Throughput Limits

- The maximum combined daily throughput of the Drummed-waste Handling Enclosure (DWHE) and the Drummed-waste Processing Glovebox (DWPG) shall not exceed 43 drums per day.
- The maximum daily throughput of the facility box lines shall not exceed 10 boxes per day.
- The maximum daily throughput of the supercompactor gloveboxes shall not exceed 150 drums per day.
- The maximum daily throughput of the special case waste glovebox system shall not exceed 3.64 drums per day.

10.5 Fuel Type Limitation

The permittee shall combust propane exclusively in the three 12.55 MMBtu/hr boilers and one 2.0 MMBtu/hr potable water heater at the facility.

10.6 Install Zone 3 Ventilation System Air Pollution Control Equipment

The permittee shall calibrate, maintain, and operate, in accordance with the General Provisions and manufacturer specifications, three stages of HEPA filters to control emissions from the following process areas that exhaust into the Zone 3 ventilation system: the box line and the DWHE. Each HEPA filter stage shall contain a minimum of two HEPA filters constructed in parallel; one filter shall be used to control emissions while the second filter is used as a backup.

10.7 Install Glovebox Ventilation System Air Pollution Control Equipment

The permittee shall calibrate, maintain, and operate, in accordance with the General Provisions and manufacturer specification, three stages of HEPA filters to control emissions from the following areas that exhaust into the glovebox ventilation system: the special case waste gloveboxes, the supercompactor gloveboxes, and the DWPG.

Monitoring and Recordkeeping Requirements

10.8 Throughput Monitoring

The permittee shall monitor and record the following process throughput information. A compilation of the most recent five years of records shall be kept onsite and shall be made available to Department representatives upon request.

- The total monthly volume of waste processed at this facility.
- The daily throughputs of the DWHE, DWPG, box lines, supercompactor gloveboxes, and special case waste gloveboxes.

11 Materials and Fuels Complex (MFC) Fuel Conditioning Facility (FCF)

11.1 Process Description

The primary mission of the MFC FCF is electrometallurgical treatment of sodium-bonded spent nuclear fuel from EBR-II, Fermi-1, the Fast Flux Test Facility (FFTF), and smaller amounts of other sodium-bonded fuels. The spent fuel inventory is described in a 2000 Final Environmental Impact Statement (FEIS)³ for sodium-bonded fuels from EBR-II, Fermi-1, FFTF, and from miscellaneous smaller sources.

Current plans also call for the installation of two new processing capabilities. The Research Scale Fuel Fabrication Facility Metal Fuel Module is a project designed to demonstrate all aspects of remote metal fuel fabrication technology on a small scale. Installation of oxide fuel fabrication capability is also planned to provide a backup capability for a demonstration project proposed to be undertaken at another National Laboratory.

All radiological emissions from the FCF are emitted to the atmosphere through the MFC Main Stack (Source #MFC-764-001, formerly designated ANL-764-001). The MFC Main Stack is a continuously monitored, 200-foot tall stack. Primary FCF emission units that contribute to the MFC Main Stack exhaust include the following:

- 11.1.1 Building Exhaust System – This system is designed to operate at lower than atmospheric pressure but at pressures higher than contaminated or potentially contaminated areas. Areas exhausted during normal operations include offices, control room, operating corridors and portions of the basement. Air flow from the Building Exhaust System passes through an aerosol tested HEPA filter prior to discharge into the MFC Main Stack.
- 11.1.2 Air Cell System – The air cell is used primarily for storage and for the disassembly of fuel assemblies into fuel elements prior to further processing in the argon cell, but also has the capability to be used for the assembly of fuel assemblies from fuel elements produced in the argon cell. Routine operations typically include, but are not limited to, the handling of complete fuel assemblies, clad fuel elements, packaged process product, in-cell samples, and remotely handled waste. Fuel pin loading, capsule welding, leak testing, and radiography activities will also be performed within the air cell as part of the fuel fabrication process. Transfer of materials from the air cell to the argon cell is through an airlock which is pumped down (evacuated) to limit the amount of nitrogen and oxygen introduced into the argon cell.

Air for the air cell is brought in through two inlets from the general building area. The air cell and other contaminated areas are maintained at a lower pressure than the building but at higher pressure than the argon cell.

The air cell exhaust system draws air from areas and equipment that are either contaminated or potentially contaminated. These areas include the air cell, cask tunnel, transfer tunnel, the basement hot repair facility (HRF), the roof hot repair area (HRA), the suited entry repair area, the decon spray chamber, the radioactive liquid waste system, the argon cell purification and feed/bleed systems, subcell D, glove boxes, air hoods and other contaminated areas within the

³ July 2000, U.S. Department of Energy, Final Environmental Impact Statement for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel, DOE/EIS-0306
<http://www.eh.doe.gov/nepa/eis/eis0306/eis0306.htm>

facility. The air from the air cell exhaust system passes through a two-stage aerosol-tested HEPA filter prior to discharge into the MFC Main Stack.

- 11.1.3 Argon Cell System – Argon cell operations typically include, but are not limited to: electrometallurgical treatment of sodium-bonded spent nuclear fuel, fuel fabrication and analysis, preparation of radiological waste streams (e.g., salt, cadmium, and cladding hulls) for final disposal, and various other fuels-related work. Actinides recovered from the electrorefining process are used as the primary feedstock for metal fuel fabrication activities in the argon cell.

The argon cell atmosphere provides a satisfactory atmosphere for the production of high grade plutonium and uranium metal fuels. The argon cell is maintained at a negative pressure relative to the entire facility by cooling of the argon atmosphere. The cooling system circulates argon in a closed loop system. Small quantities of air may leak into the argon cell through cell penetrations and from airlock transfers. A purification sidestream is available to catalytically combine oxygen with hydrogen to form water which is captured by a dryer. Exhaust from the argon cell purification and feed/bleed systems pass through a two-stage aerosol tested HEPA filter into the air cell exhaust system prior to discharge through the MFC Main Stack.

A Safety Exhaust System (SES) is used for over and under pressure relief of the argon cell. The SES normally exhausts the subcell areas with all exhaust passing through a two-stage aerosol tested HEPA filter prior to discharge into the MFC Main Stack.

Purpose

The purpose of this section of the permit is to incorporate the requirements of PTC P-2008.0073 issued December 5, 1989 and revised June 10, 2008 for the Materials and Fuels Complex (MFC) Fuel Conditioning Facility (FCF).

As part of this initial FEC permit issuance there are no new or modified emissions units at the Materials and Fuels Complex (MFC) Fuel Conditioning Facility (FCF).

11.2 Control Device Descriptions

Table 11.1 MFC FCF Description

Permit Section	Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
11.3-11.5, 3.16-3.21 & 3.75-3.83	Building Maintenance Activities in Low-Level Contamination Areas	HEPA filter	MFC Main Stack (#MFC-764-001) Height: 200feet Exit Diameter: 5.1 feet Max exhaust flow: 58,000 scfm Min exhaust velocity: 1,500 ft/min
11.3-11.5, 3.16-3.21 & 3.75-3.83	Air Cell System (fuel assembly disassembly in cell, combined with emissions from hot repair facility (HRF), hot repair area (HRA), subcell D, glove boxes, air hoods, and other contaminated areas within the building.	Two-stage HEPA filter system	MFC Main Stack (#MFC-764-001)
11.3-11.5, 3.16-3.21 &	Argon Cell System (fuel	Two-stage HEPA	MFC Main Stack

3.75-3.83	element chopping, electrorefining process, waste stream preparation for disposal, fuel fabrication)	filter system	(#MFC-764-001)
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Operating Requirements

11.3 Throughput Limit

Processing of sodium-bonded nuclear fuel (driver fuel, blanket fuel, and experimental fuels described in the July 2000 FEIS, DOE/EIS-0306) shall be limited to no more than 5,000 kilograms (11,023 pounds) of fuel per year.

11.4 Process and Building Pressure Differentials

During routine operations, the air cell shall be maintained at a lower pressure than the building ventilation but higher than the argon cell pressure to preserve flow from the least to the most contaminated areas within the building.

During routine operations, the argon cell shall be maintained at a pressure lower than all other areas of the FCF.

Monitoring and Recordkeeping Requirements

11.5 Throughput Monitoring

The permittee shall monitor and record the fuel type, fuel source, and amount of nuclear fuel processed, (in kilograms and in pounds) on a daily basis. On a monthly basis, the daily totals shall be summed and added to a monthly running total for the amount of fuel processed in that calendar year.

12 General Provisions

General Compliance

12.1 The permittee has a continuing duty to comply with all terms and conditions of this permit. 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 emissions 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, the "Rules for the Control of Air Pollution in Idaho," and the Environmental Protection and Health Act (Idaho Code §39-101, et seq.)

[Idaho Code §39-101, et seq.]

12.2 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.

[IDAPA 58.01.01.211, 5/1/94]

12.3 Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules, and regulations.

[IDAPA 58.01.01.212.01, 5/1/94]

Inspection and Entry

12.4 Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:

- Enter upon the permittee's premises where an emissions source is located, emissions-related activity is conducted, or where records are kept under conditions of this permit;
- Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
- Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
- As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108]

Construction and Operation Notification

12.5 DEQ shall deem the notification provisions of IDAPA 58.01.01.211 satisfied with respect to operations and equipment at the facility in place as of the date of permit issuance, and any future operations and/or new equipment installations or modifications that do not exceed the terms of this permit. Where required, the permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211:

- A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date; and;
- A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date.

[IDAPA 58.01.01.211.03, 5/1/94]

12.6 Reserved

Performance Testing

12.7 If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

12.8 All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

12.9 Within 60 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00 and 4/11/15]

Monitoring and Recordkeeping

- 12.10 The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Monitoring records shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

Excess Emissions

- 12.11 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130–136 for excess emissions due to start-up, shut-down, scheduled maintenance, safety measures, upsets, and breakdowns.

[IDAPA 58.01.01.130–136, 4/5/00]

Certification

- 12.12 All documents submitted to DEQ—including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification—shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

[IDAPA 58.01.01.123, 5/1/94]

False Statements

- 12.13 No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

Tampering

- 12.14 No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Transferability

- 12.15 This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

Severability

- 12.16 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.

[IDAPA 58.01.01.211, 5/1/94]