



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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C.L. "Butch" Otter, Governor
Curt Fransen, Director

September 18, 2012

Teresa Perkins, Director, Environmental and Sustainability Division
U.S. Department of Energy
1955 North Fremont Avenue
Idaho Falls, ID 83401

RE: Facility ID No. 023-00001, Department of Energy, Idaho National Laboratory, Idaho Falls
Permit to Construct Revision

Dear Ms. Perkins:

The Department of Environmental Quality (DEQ) is issuing a revised permit to construct (PTC) No. P-2012.0053 Project No. 61100 for Idaho National Laboratory (INL)/Idaho Nuclear Technology and Engineering Center (INL/INTEC) at Idaho Falls in accordance with IDAPA 58.01.01.201, Rules for the Control of Air Pollution in Idaho. This permit has been revised by DEQ as requested by the Department of Energy (DOE) during our meeting with DOE staff on August 8, 2012. This permit revision was initiated by DEQ to remove the EPA Region 10 as a recipient of the semi-annual report required by permit condition 2.14 of PTC No. P-030505, issued on January 21, 2004.

EPA granted DEQ delegation for compliance and enforcement for 40 CFR 60, Subpart Dc on July 1, 2008. Consequently, all required reporting should be sent to DEQ and not EPA.

It should be noted that there are no Statement of Basis or PTC permitting fees associated with this permitting action.

Please be aware this permit replaces PTC No. P-030505, issued January 21, 2004, the terms and conditions of which shall no longer apply.

If you have questions regarding this permitting action, please contact Harbi Elshafei at 208-373-0501 or harbi.elshafei@deq.idaho.gov.

Sincerely,

A handwritten signature in black ink that reads "Mike Simon".

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS/HE

Permit No. P-2012.0053 PROJ 61100
Enclosure

Air Quality

PERMIT TO CONSTRUCT

Permittee U.S. Department of Energy – INL INTEC Facility
Permit Number P-2012.0053
Project ID 61100
Facility ID 023-00001
Facility Location INTEC Facility, Building CPP-606
E 343.812, N 4826.008

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 September 18, 2012

Harbi A Elshafei

Harbi Elshafei, Permit Writer

Mike Simon

Mike Simon, Stationary Source Manager

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1 Permit Scope

Purpose

- 1.1 This is a DEQ initiated permit to construct (PTC) revision. The permit revision removes the requirement that the INL submit semi-annual reports to EPA Region X for the four NSPS Subpart Dc applicable boilers at INTEC (Permit Condition 2.14 of PTC No. P-030505, issued January 21, 2004.) DEQ has been delegated regulatory authority by EPA for Subpart Dc and the INL has been submitting the required reports to DEQ's Idaho Falls Regional Office.
- 1.2 Those permit conditions that have been modified or revised by this permitting action are identified by the permit issue date citation located directly under the permit condition and on the right-hand margin.
- 1.3 This PTC replaces Permit to Construct No. P-030505, issued on January 21, 2004.

Regulated Sources

The following table lists all sources of regulated emissions in this permit.

Regulated Sources

Permit Section	Source	Control Equipment
2.0	Four 36.4 MMBtu/hr boilers, distillate fuel oil, located in Building: CPP-606	None

2 CPP-606 Boilers

2.1 Process Description

The primary purpose of the four boilers at CPP-606 is to provide steam for heating and process use for the INTEC facility.

2.2 Emissions Control Device Descriptions

Emissions from the CPP-606 boilers are uncontrolled.

Emission Limits

2.3 Emission Limits

The SO₂, NO_x and beryllium 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		Beryllium	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
CPP-606 boilers	895	163	415	75.6	1.05E-02	1.91E-03

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

2.4 Fuel Burning Equipment - Particulate Matter Emission Standard

In accordance with IDAPA 58.01.01.676 (Rules for the Control of Air Pollution in Idaho), the permittee shall not discharge into the atmosphere from the Building CPP-606 boilers stacks any gases that contain particulate matter emissions in excess of 0.050 grains per dry standard cubic foot (gr/dscf) corrected to 3% oxygen.

2.5 Opacity Limit

Emissions from the Building CPP-606 boilers stacks, or any other stack, vent, or functionally equivalent opening, emissions that exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

2.6 40 CFR 60.43c Opacity Limit

In accordance with 40 CFR 60.43c, the permittee shall not discharge into the atmosphere from the Building CPP-606 boilers stacks any gases that exhibit greater than 20% opacity (six-minute average), except for one six-minute period per hour of not more than 27% opacity. The opacity standard shall apply at all times except during periods of startup, shutdown, or malfunction. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625 and as specified in 40 CFR Part 60.

Operating Requirements

2.7 Boiler Fuel

The permittee shall combust distillate oil exclusively in the Building CPP-606 boilers. The distillate oil combusted in these boilers shall not contain greater than 0.3 weight percent sulfur.

2.8 40 CFR 60.42c(d) Boiler Fuel Requirement

In accordance with 40 CFR 60.42c(d), the permittee shall not combust distillate oil that contains greater than 0.5 weight percent sulfur in the Building CPP-606 boilers. In accordance with 40 CFR 60.41c, distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975-11b, "Standard Specification for Fuel Oils".

2.9 Boiler Fuel Throughput Limit

The total amount of boiler fuel combusted for all Building CPP-606 boilers shall not exceed 20,736 gallons per day.

Monitoring and Recordkeeping Requirements

2.10 Boiler Fuel Sulfur Content

To demonstrate compliance with Sections 2.7 and 2.8 of this permit, the fuel oil supplier shall certify all boiler fuel combusted in the Building CPP-606 boilers. In accordance with 40 CFR 60.48c(f), fuel oil supplier certification shall include the name of the fuel oil supplier, and a statement from the fuel oil supplier that the fuel oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c.

2.11 Boiler Fuel Throughput

In accordance with 40 CFR 60.48.c(g), the permittee shall monitor and record the amount of boiler fuel combusted in the Building CPP-606 boilers. The amount of boiler fuel combusted shall be recorded as gallons per day (gal/day), in a log, kept at the facility for the most recent five years period. The log shall be available to DEQ representatives upon request.

2.12 Sulfur Dioxide Performance Test

In accordance with 40 CFR 60.42c (h), the performance test to demonstrate compliance with Section 2.8 of this permit shall consist of certification from the fuel supplier. In accordance with 40 CFR 60.48c(f), fuel supplier certification shall include the following information for distillate oil: (1) the name of the oil supplier; (2) a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c; and (3) the sulfur content or maximum sulfur content of the oil.

Reporting Requirements

2.13 Performance Test Report

In accordance with IDAPA 58.01.01.157.04, if the source test is performed to satisfy a performance test requirement imposed by state or federal regulation, rule, permit, order, or consent decree, a written report shall be submitted to the Department within thirty (30) days of the completion of the test.

2.14 Semi Annual Reporting

In accordance with 40 CFR 60.48c(d), the permittee shall submit semi-annual reports to the DEQ Idaho Falls Regional Office. 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 Idaho Falls Regional Office and shall be postmarked by the 30th day following the end of the reporting period. Each submitted semi-annual report shall contain the information required by 40 CFR 60.48c(e), as applicable. The DEQ Idaho Falls Regional Office mailing address is:

Idaho Department of Environmental Quality
Idaho Falls Regional Office - Air Quality
900 N. Skyline, Ste. B
Idaho Falls, ID 83402

[9/18/12]

2.15 Recordkeeping

In accordance with 40 CFR 60.48c(i), the permittee shall maintain all records of the information required by 40 CFR 60.48c(e). The permittee shall maintain the records for a period of two years following the date of such record.

3 Summary of Emissions Limits

The following table provides a summary of all emissions limits required by this permit.

Summary of Emissions Limits

DOE/INTEC -INL Emissions Limits ^a - Daily (lb/day) and Annual ^b (T/yr)						
Source Description	SO ₂		NO _x		Beryllium	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
CPP-606 boilers	895	163	415	75.6	1.05E-02	1.91E-03

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

b As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the process (es) may operate(s), or by actual annual production rates. The permittee shall not exceed the T/yr listed based on any consecutive 12-month period.

4 Emissions Inventory

The following table is a summary of the emissions increases and decreases associated with the January 21, 2004 permit modification.

Emissions Inventory

Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Decrease (T/yr)	Change in Annual Emissions (T/yr)
NO_x	0	23	(23)
SO₂	0	50	(50)
CO	0	5.45	(5.45)
PM₁₀	0	2.3	(2.3)
VOC	0	0.36	(0.36)
TAPs/HAPs*	0	0.0412	(0.0412)
Total:	0	81.15	(81.15)

* TAPs/HAPs = toxic air pollutants/hazardous air pollutants

5 General Provisions

General Compliance

5.1 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.]

5.2 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]

5.3 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

5.4 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

5.5 This permit shall expire if construction has not begun within two years of its issue date, or if construction is suspended for one year.

[IDAPA 58.01.01.211.02, 5/1/94]

5.6 The permittee shall furnish DEQ written notifications as follows:

- A notification of the date of initiation of construction, within five working days after occurrence; except in the case where pre-permit construction approval has been granted then notification shall be made within five working days after occurrence or within five working days after permit issuance whichever is later;
- A notification of the date of any suspension of construction, if such suspension lasts for one year or more;

- 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; and
- A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211.03, 5/1/94]

Performance Testing

- 5.7 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.
- 5.8 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.
- 5.9 Within 30 days, or up to 60 days when requested 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]

Monitoring and Recordkeeping

- 5.10 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

5.11 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

5.12 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

5.13 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

5.14 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

5.15 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

5.16 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]