



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

October 18, 2011

Ms. Jo Anna Stenzel, Director, Environmental Support and Services
Battelle Energy Alliance, LLC
P. O. Box 1625
Idaho Falls, ID 83415

RE: Facility ID No. 011-00023, Specific Manufacturing Capability, Idaho National Laboratory
Final Permit Letter

Dear Ms. Stenzel:

The Department of Environmental Quality (DEQ) is issuing modified Permit to Construct (PTC) No. P-2011.0092 Project 60825 for the Test Area North (TAN) Specific Manufacturing Capability facility (SMC) at the Idaho National Laboratory (INL). 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 November 30, 2010.

This permit is effective immediately. This permit does not release the permittee from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

This PTC was processed in accordance with IDAPA 58.01.01.209.05.a. The permittee may operate the source after the PTC is issued so long as it does not violate any terms or conditions of the existing Tier I operating permit, and the applicable requirements contained in the PTC will be incorporated into the existing Tier I permit upon renewal, as applicable to that permit.

Pursuant to the Construction and Operation Notification General Provision of your permit, no notification to the DEQ Idaho Falls Regional Office is required for this particular permit modification.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Maria Miles, Air Quality Analyst, 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.

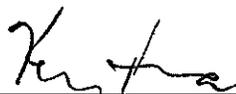
Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to contact Ken Hanna at (208) 373-0283 or kenneth.hanna@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

A handwritten signature in black ink that reads "Mike Simon". The signature is fluid and cursive, with the first name "Mike" and last name "Simon" clearly legible.

Mike Simon
Stationary Source Program Manager
Air Quality Division

MSKH
Permit No. P-2011.0092 PROJ 60825
Enclosures

<p style="text-align: center;">Air Quality PERMIT TO CONSTRUCT State of Idaho Department of Environmental Quality</p>	PERMIT NUMBER	CLASS	SIC
	P-2011.0092	A	8733
	FACILITY ID	AQCR	NAICS
	023-00001	61	541712
	UTM ZONE	UTM COORDINATES (km)	
12	361.1 Easting	4857.4 Northing	
PERMITTEE			
U.S. Department of Energy, Idaho Operations Office (DOE-ID), Idaho National Laboratory (INL)			
PROJECT			
PROJECT 60825, Specific Manufacturing Capability (SMC) at Test Area North (TAN)			
MAILING ADDRESS	CITY	STATE	ZIP
1955 Fremont Avenue	Idaho Falls	ID	83415
FACILITY CONTACT	TITLE	TELEPHONE	
Teresa Perkins	Director, Environment and Sustainability Division, DOE-ID	208-526-1483	
RESPONSIBLE OFFICIAL/TITLE		TELEPHONE	
Manager, Department of Energy-Idaho Operations Office Director, ES&H, Battelle Energy Alliance, LLC		(Obtain telephone numbers through facility contact if necessary)	
EXACT PLANT LOCATION		COUNTY	
Test Area North (TAN) at the INL		Butte	
GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS			
Multipurpose National Laboratory			
PERMIT AUTHORITY			
<p>This permit is issued according to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200 through 228, and 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.</p> <p>This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the 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.</p> <p>This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.</p> <p>This permit has been granted on the basis of design information presented with its application. Changes in design, equipment or operations may be considered a modification. Modifications are subject to DEQ review in accordance with IDAPA 58.01.01.200 through 228 of the Rules for the Control of Air Pollution in Idaho.</p>			
 KEN HANNA, PERMIT WRITER		DATE ISSUED October 18, 2011	
 MIKE SIMON, STATIONARY SOURCE MANAGER			

PERMIT TO CONSTRUCT SCOPE	3
TEST AREA NORTH – SPECIFIC MANUFACTURING CAPABILITY (TAN SMC)	4
PERMIT TO CONSTRUCT GENERAL PROVISIONS.....	8

PERMIT TO CONSTRUCT SCOPE

Purpose

1. This is a modification of a permit to construct for the Specific Manufacturing Facility (SMC) located at the INL Test Area North (TAN).
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.
3. This PTC replaces Permit to Construct No. P-030501, issued on May 20, 2004.
4. The emission sources regulated by this permit are listed in the following table.

Table 1 REGULATED SOURCES

Source Descriptions	Emission Controls
TAN 629-013 Phase I Stack	HEPA filter
TAN 679-022, 023, 024; Phase II – North (3 stacks)	HEPA filter
TAN 679-025, 026, 027; Phase II – South (3 stacks)	HEPA filter
TAN 681-018 and TAN 681-020 – Process Reclamation Facility	HEPA filter
TAN 679-067a, 25 MMBtu/hr Boiler	Good combustion Control
TAN 679-067b, 60 Horsepower Boiler (2.0 MMBtu/hr)	Good combustion Control
TAN 679-068, 25 MMBtu/hr Boiler	Good combustion Control
TAN 629-012, 014 – 2B Paint Process	Paint booth pre-filters and HEPA filter

TEST AREA NORTH – SPECIFIC MANUFACTURING CAPABILITY (TAN SMC)

Process Description

5. The following is a narrative description of the permitted emissions units at Test Area North (TAN) that are regulated in this 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.

6. Emission Controls Description

Table 2 TAN SMC EMISSIONS UNIT DESCRIPTION

Emissions Units / Processes	Emission Control Devices	Emission Points
TAN 629-013 Phase I Stack	HEPA filter	TAN 629-013 Phase I Stack
TAN 679-022, 023, 024; Phase II – North (3 stacks)	HEPA filter	TAN 679-022, 023, 024
TAN 679-025, 026, 027; Phase II – South (3 stacks)	HEPA filter	TAN 679-025, 026, 027
TAN 681-018 and TAN 681-020 – Process Reclamation Facility	HEPA filter	TAN 681-018 and TAN 681-020 Stacks
TAN 679-067a, 25 MMBtu/hr Boiler	Good combustion Control	TAN 679-067a Boiler Stack
TAN 679-067b, 60 Horsepower Boiler (2.0 MMBtu/hr)	Good combustion Control	TAN 679-067b Boiler Stack
TAN 679-068, 25 MMBtu/hr Boiler	Good combustion Control	TAN 679-068 Boiler Stack
TAN 629-012, 014 – 2B Paint Process	Paint booth pre-filters and HEPA filter	TAN 629-012 and TAN 629-014 Stacks

Emission Limits

7. 40 CFR 61 Subpart H NESHAP Radionuclide Dose Impact Limit

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) in accordance with 40 CFR 61.92.

8. Boiler Emission Limits

The combined emissions of SO₂ and NO_x from the three SMC boilers that vent to stacks TAN 679-067a, TAN 679-067b and TAN 679-068 shall not exceed any emissions rate limit in the following table.

Table 3 COMBINED BOILER EMISSION LIMITS

Source Description	SO ₂		NO _x	
	lb/hr ^a	T/yr ^b	lb/hr ^a	T/yr ^b
Combined Emissions From Boilers TAN 679-067a (25 MMBtu/hr), TAN 679-067b (60 Horsepower), and TAN 679-068 (25 MMBtu/hr)	19.8	79.3	5.53	22.1

- a) Pounds per hour, as determined by a test method prescribed by IDAPA 58.01.01.157, EPA reference method, or DEQ-approved alternative.
 b) Tons per any consecutive 12-calendar month period.

[OCTOBER 18, 2011]

9. 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.
10. Opacity Limit
Emissions from the sources listed below, or any other stack, vent, or functionally equivalent opening associated with the SMC, shall not 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.
- TAN 629-013 Phase I Stack
 - TAN 679-022, 023, 024; Phase II – North (3 stacks)
 - TAN 679-025, 026, 027; Phase II – South (3 stacks)
 - TAN 681-018 and TAN 681-020 – Process Reclamation Facility
 - TAN 679-067a, 25 MMBtu/hr Boiler
 - TAN 679-067b, 60 Horsepower Boiler (2.0 MMBtu/hr)
 - TAN 679-068, 25 MMBtu/hr Boiler
 - TAN 629-012, 014; 2B Paint Process
11. For each of the SMC boilers (i.e., TAN 679-067a, TAN 679-067b, TAN 679-068), the permittee shall not discharge to the atmosphere 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 gaseous fuel, or 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid fuel in accordance with IDAPA 58.01.01.676-677.
[OCTOBER 18, 2011]
12. 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.
[OCTOBER 18, 2011]

Operating Requirements

13. Process and Building HEPA Filter Systems
When in operation, the permittee shall operate and maintain the following HEPA filter systems to filter building/process exhaust prior to release to the atmosphere, according to the requirements specified below:
- TAN 629-013 HEPA filters (identified as F-AE-601 and F-AE-602) shall be operated as specified below, except the removal efficiency shall be maintained at or above 99% instead of 99.97%
 - TAN 679-022, TAN 679-023, TAN 679-024, TAN 679-025, TAN 679-026 and TAN 679-027 HEPA filters
 - TAN 681-018 and TAN 681-020 HEPA filters
 - 2B Paint Process HEPA filters
- 13.1 Each HEPA filter shall have a minimum particle removal efficiency of no less than 99.97%.
- 13.2 The permittee shall maintain and operate instrumentation to measure the pressure drop across the filter(s). HEPA filter efficiency shall be tested according to the ASME N510 and/or N511 testing standard(s). Records of any testing performed shall be maintained in accordance with the General Provisions of this permit.

- 13.3 The permittee shall maintain written documentation to ensure compliance with this permit. This shall include, at a minimum, written procedures that specify how the pressure drop across the filter will be measured, the frequency of pressure drop monitoring, and the conditions that require change-out of the filters.
[State-only Requirement, OCTOBER 18, 2011]
14. Only distillate fuel oil, liquefied petroleum gas (LPG), or natural gas shall be combusted in the three SMC Boilers: TAN 679-067a (25 MMBtu/hr), TAN 679-067b (60 Horsepower), and TAN 679-068 (25 MMBtu/hr).
[OCTOBER 18, 2011]
15. No person shall sell, distribute, use, or make available for use any fuel oil containing more than the following percentages of sulfur except as exempted in accordance with IDAPA 58.01.01.725:
- ASTM Grade 1 fuel oil - 0.3% by weight
 - ASTM Grade 2 fuel oil - 0.5% by weight
- [OCTOBER 18, 2011]**

Monitoring and Recordkeeping Requirements

16. HEPA Filter Pressure Drop Monitoring
 When in operation, the permittee shall monitor and record the pressure drop across the HEPA filter stages of the HEPA filter systems at least once per day according to written procedures.
[State-only Requirement, OCTOBER 18, 2011]
17. 40 CFR 61 Subpart H NESHAP Radionuclide Monitoring
 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.
18. When the SMC facility is operating, the permittee shall monitor and record the monthly and consecutive 12-month period fuel consumption and type of fuel combusted by the three boilers that vent to stacks TAN 679-067a, TAN 679-067b and TAN 679-068. All records shall be maintained in accordance with permit condition 31.
[OCTOBER 18, 2011]
19. Each month the permittee shall calculate and record the average pounds per hour per month SO₂ and NO_x emissions and the SO₂ and NO_x emissions per consecutive 12-month period from the three boilers that vent to stacks TAN 679-067a, TAN 679-067b and TAN 679-068 using appropriate EPA AP-42 or manufacturer supplied emissions factors, or a DEQ approved alternative method. All records shall be maintained in accordance with permit condition 31.
[OCTOBER 18, 2011]
20. The permittee shall maintain a record of either one or the other of the following types of painting production information. The records shall be maintained in accordance with permit condition 31:
- the number of parts processed during the previous consecutive 12 months at the 2B Paint Process (i.e., that vent to stacks TAN 629-012 and TAN 629-014), or;
 - 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.
- [OCTOBER 18, 2011]**

21. 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 permit condition 31.
[OCTOBER 18, 2011]

Reporting Requirements

22. 40 CFR 61 Subpart H NESHAP Annual Report
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.

PERMIT TO CONSTRUCT GENERAL PROVISIONS

General Compliance

23. 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 and 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.]**
24. 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]**
25. 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

26. 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 or 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

27. The permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211:
- 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.

[IDAPA 58.01.01.211, 5/1/94]

Performance Testing

28. 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, at its option, may 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.
29. 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.
30. Within 30 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]

Monitoring and Recordkeeping

31. The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Records of monitoring information 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 and 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

32. The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

[IDAPA 58.01.01.130-136, 4/5/00]

Certification

33. 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

34. 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

35. 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

36. 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

37. 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]