



**Air Quality
TIER II OPERATING PERMIT**

State of Idaho
Department of Environmental Quality

PERMIT No.: T2-2009.0105

FACILITY ID No.: 027-00010

AQCR: 64 **CLASS:** A **ZONE:** 11

SIC: 2063 **NAICS:** 311313

UTM COORDINATE (km): 534.5, 4828.0

1. PERMITTEE

The Amalgamated Sugar Company LLC – Nampa Factory (TASCO)

2. PROJECT

Project No. 60867, BART Tier II Operating Permit

3. MAILING ADDRESS

P.O. Box 8787

CITY

Nampa

STATE

ID

ZIP

83653-8787

4. FACILITY CONTACT

Glen Patrick

TITLE

Plant Environmental Manager

TELEPHONE

(208) 468-6883

5. RESPONSIBLE OFFICIAL

Kent Quinney

TITLE

Plant Manager

TELEPHONE

(208) 466-3541

6. EXACT PLANT LOCATION

138 W. Karcher Ave., Nampa, Idaho

COUNTY

Canyon

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Beet Sugar Manufacturing

8. PERMIT AUTHORITY

This permit is issued according to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.400 through 410, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be operated by this permit.

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.

MORINE LEWIS, PERMIT WRITER
DEPARTMENT OF ENVIRONMENTAL QUALITY

MIKE SIMON, STATIONARY SOURCE PROGRAM MANAGER
DEPARTMENT OF ENVIRONMENTAL QUALITY

Date Issued:	December 23, 2011
Date Modified/Revised:	
Date Expires:	December 23, 2016

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Acronyms, Units, and Chemical Nomenclature

AQCR	Air Quality Control Region
BART	Best Available Retrofit Technology
B&W	Babcock & Wilcox
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
fpm	feet per minute
gpm	gallons per minute
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
iwg	inches of water gauge
lb/hr	pounds per hour
lb steam/hr	pounds of steam output per hour
LNBs	low NO _x burners when firing coal
MMBTU/hr	million British thermal units per hour
MMscf/hr	million standard cubic feet per hour
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operations and maintenance
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	prevention of significant deterioration of air quality
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO _x	sulfur oxides
TAP	toxic air pollutants
TASCO	The Amalgamated Sugar Company, LLC – Nampa Factory
T/hr	tons per hour
U.S.C.	United States Code
UTM	Universal Transverse Mercator
VOC	volatile organic compounds

1. TIER II OPERATING PERMIT SCOPE

Purpose

1.1 The purpose of this Tier II Operating Permit is to establish Best Available Retrofit Technology (BART) and BART Alternative emission standards and requirements for the TASC0 Riley Boiler and Nampa factory in accordance with 40 CFR 51.308(e) and IDAPA 58.01.01.668.

This permit is not effective until a revised Regional Haze State Implementation Plan (RH SIP) is approved by the U.S. Environmental Protection Agency (EPA) which incorporates BART requirements from this permit.

Upon the effective date of a revised RH SIP, this permit supersedes Tier II Operating Permit No. T2-2009.0105 issued on September 7, 2010.

Regulated Sources

1.2 The emission sources regulated by this permit are listed in the following Regulated Emission Point Sources Table.

REGULATED EMISSION POINT SOURCES TABLE

Permit Section	Source Description	Control Equipment Descriptions
2 & 3	<u>Riley Boiler (S-B3)</u> Installation Date: 1969 Rated steam capacity: 250,000 lb steam/hr Maximum capacity: 350 MMBTU/hr Maximum operation: 8,760 hr/yr Fuel types: coal, natural gas	<u>Baghouse (A-B3)</u> Manufacturer: Envirotech Corp. Control efficiency: ≥99.0% for PM (BART for PM) <u>Coal-Firing LNBs</u> Control efficiency: ≥60.7% for NO _x (BART for NO _x)
	<u>B&W Boiler #1 (S-B1)</u> Installation Date: 1942 Rated steam capacity: 105,000 lb steam/hr Maximum capacity: 126 MMBTU/hr Maximum operation: 8,760 hr/yr Fuel types: coal, natural gas	<u>Coal-Firing LNBs</u> Control efficiency: ≥55% for NO _x (BART Alternative for SO ₂)
2 & 3	<u>B&W Boiler #2 (S-B2)</u> Installation Date: 1942 Rated steam capacity: 105,000 lb steam/hr Maximum capacity: 126 MMBTU/hr Maximum operation: 8,760 hr/yr Fuel types: coal, natural gas	<u>Coal-Firing LNBs</u> Control efficiency: ≥55% for NO _x (BART Alternative for SO ₂)
2 & 4	<u>Pulp Dryers (S-D1, S-D2, and S-D3)</u>	<u>Permanent shutdown</u> (BART Alternative for SO ₂)

2. FACILITY-WIDE CONDITIONS

Obligation to Comply

- 2.1 Receiving a Tier II operating permit shall not relieve any owner or operator of the responsibility to comply with all applicable local, state, and federal rules and regulations, in accordance with IDAPA 58.01.01.406.

Incorporation of Federal Requirements by Reference

- 2.2 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, in accordance with IDAPA 58.01.01.107. Documents include, but are not limited to:

- Protection of Visibility, 40 CFR Part 51, Subpart P, Section 308 – Best Available Retrofit Technology (BART) requirements

For permit conditions referencing or cited in accordance with any document incorporated by reference (including permit conditions identified as BART and CAM), 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.

DEQ Address

- 2.3 Any reporting required by this permit, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, notifications of intent to test, testing reports, or compliance certifications, 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. Any reporting required by this permit shall be submitted to the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Boise Regional Office
1445 N. Orchard
Boise, ID 83706

Phone: (208) 373-0550
Fax: (208) 373-0287

Performance Testing

- 2.4 When testing is required, the following test methods shall be used to measure the pollutant emissions unless otherwise approved by DEQ in accordance with IDAPA 58.01.01.157.

TEST METHODS

Pollutant	Test Method
PM ₁₀	EPA Method 201.a and Method 202
NO _x	EPA Method 7
SO ₂	EPA Method 6
CO	EPA Method 10

3. BOILERS

3.1 Process Description

The Nampa factory operates three industrial boilers each fired by pulverized coal and/or natural gas to supply steam and generate electricity for processing of sugar beets into sugar and byproducts, including animal feed at the Nampa facility. These boilers are the one Riley Boiler and two Babcock & Wilcox (B&W) Boilers.

3.2 BART and BART Alternative Control Equipment Descriptions

- BART for the control of PM emissions is the existing Baghouse (A-B3) on the Riley Boiler.
- BART for the control of NO_x emissions is Coal-Firing LNBS on the Riley Boiler.
- The BART Alternative to the control of SO₂ emissions is Coal-Firing LNBS on B&W Boiler #1 and Coal-Firing LNBS on B&W Boiler #2 for the control of NO_x, and shutdown of the three coal-fired Pulp Dryers (S-D1, S-D2, and S-D3) for the control of PM, NO_x, and SO₂.

Compliance Dates

3.3 BART 40 CFR 51.308, Subpart P – BART Control Equipment Installation and Operation Due Date

Unless the Riley Boiler is fired with natural gas only, the permittee shall install and operate BART and BART Alternative controls (Permit Conditions 3.6 and 3.7) as expeditiously as practicable, but in no event later than July 22, 2016, in accordance with IDAPA 58.01.01.668.04 and 40 CFR 51.308(e)(1)(iv).

The permittee may submit a request to obtain DEQ-approved BART alternatives and to revise this permit in accordance with IDAPA 58.01.01.404.04. DEQ will process the request in accordance with IDAPA 58.01.01.404. The request must be submitted timely such that any revisions to this permit and the corresponding revision to the RH SIP are approved prior to July 22, 2016. Pursuant to Section 110(k)(2) of the Clean Air Act, EPA has 12 months to act on a requested SIP revision.

Emissions Limits

3.4 BART 40 CFR 51.308, Subpart P – BART Emission Limits

On and after July 22, 2016, emissions from the Riley Boiler shall not exceed any corresponding emission rate limit listed in the following BART Emission Limits Table, in accordance with 40 CFR 51.308(e) and IDAPA 58.01.01.668.

BART EMISSION LIMITS TABLE ^(a)

Source Description	PM ₁₀ lb/hr ^{(b)(c)}	NO _x lb/hr ^{(b)(c)}
Riley Boiler	12.4	147

^{a)} In absence of any other credible evidence, compliance is assured by complying with permit operating, monitoring, and recordkeeping requirements.

^{b)} Pounds per hour as determined by the prescribed test method (Permit Condition 2.4), or alternative test method approved by DEQ in accordance with IDAPA 58.01.01.157.

^{c)} BART emission rate limit established pursuant to 40 CFR 51.308(e).

3.5 BART 40 CFR 51.308, Subpart P – BART Alternative Emission Limits

At all times the Riley Boiler is fired with coal on and after July 22, 2016, emissions from the B&W Boiler #1 and B&W Boiler #2 combined shall not exceed any corresponding emission rate limit listed in the following BART Alternative Emission Limits Table, in accordance with 40 CFR 51.308(e) and IDAPA 58.01.01.668.

BART ALTERNATIVE EMISSION LIMITS TABLE ^(a)

Source Description	NO _x lb/hr ^{(b)(c)}
B&W Boiler #1 and B&W Boiler #2, combined	103

- a) In absence of any other credible evidence, compliance is assured by complying with permit operating, monitoring, and recordkeeping requirements.
- b) Pounds per hour as determined by the prescribed test method (Permit Condition 2.4), or alternative test method approved by DEQ in accordance with IDAPA 58.01.01.157.
- c) BART Alternative emission rate limit established pursuant to 40 CFR.51.308(e)(2).

Operating Requirements

3.6 BART 40 CFR 51.308, Subpart P – Baghouse Control Equipment

At all times the Riley Boiler is fired with coal on and after July 22, 2016, the permittee shall operate Baghouse (A-B3) to control PM emissions from the Riley Boiler to ensure compliance with the PM₁₀ emission limit (Permit Condition 3.4), in accordance with 40 CFR 51.308(e) and IDAPA 58.01.01.668. The baghouse need not be operated during periods when the Riley Boiler is being fired exclusively with natural gas.

3.7 BART 40 CFR 51.308, Subpart P – Coal-Firing LNBS

At all times the Riley Boiler is fired with coal on and after July 22, 2016, the permittee shall:

- o Operate Riley Boiler Coal-Firing LNBS at all times the Riley Boiler is fired by coal, to ensure compliance with the relevant NO_x emission limit (Permit Condition 3.4). The Coal-Firing LNBS shall have a maximum rated heat input capacity (highest heating value) of less than or equal to 350 MMBTU/hr.
- o Operate B&W Boiler #1 Coal-Firing LNBS at all times the B&W Boiler #1 is fired by coal, to ensure compliance with the relevant NO_x emission limit (Permit Condition 3.5). The Coal-Firing LNBS shall have a maximum rated heat input capacity (highest heating value) of less than or equal to 126 MMBTU/hr.
- o Operate B&W Boiler #2 Coal-Firing LNBS at all times the B&W Boiler #2 is fired by coal, to ensure compliance with the relevant NO_x emission limit (Permit Condition 3.5). The Coal-Firing LNBS shall have a maximum rated heat input capacity (highest heating value) of less than or equal to 126 MMBTU/hr.

3.8 BART 40 CFR 51.308, Subpart P – Maintenance of BART Equipment

On and after July 22, 2016 the permittee shall maintain each required BART control equipment (if required by Permit Conditions 3.3 or 3.6) and establish procedures to ensure such equipment is properly operated and maintained, in accordance with IDAPA 58.01.01.668.05 and 40 CFR 51.308(e)(1)(v).

3.9 Riley Boiler Fuels

- o Unless complying with the Coal-Firing LNBS requirements (Permit Condition 3.7), on and after July 22, 2016 the Riley Boiler shall be fired using natural gas only.
- o On and after July 22, 2016, the Riley Boiler shall not be fired with coal until such date that the Coal-Firing LNBS are installed and operated in accordance with Permit Condition 3.7.

Monitoring and Recordkeeping Requirements

3.10 Operation and Maintenance Manuals

Within 180 days after installation of Coal-Firing LNBs (Permit Condition 3.7), the permittee shall develop and submit to DEQ an Operation and Maintenance (O&M) manual for review and comment at the address provided (Permit Condition 2.3). Any changes to the O&M manual shall be submitted to DEQ for review and comment within 15 days of the change.

- The O&M manual shall describe for the installed control equipment described in the Regulated Emission Point Sources Table (Permit Condition 1.2), procedures that will be followed to ensure compliance with emission limits (Permit Conditions 3.4 and 3.5), the maintenance of BART equipment requirement (Permit Condition 3.8), the control equipment maintenance and operation general provision (General Provision 2), and the manufacturer's specifications. The O&M manual shall be developed by the permittee based upon, but independent of, the manufacturer supplied operating manual(s).
 - The permittee shall operate control equipment in accordance with the O&M manual. The procedures specified in the O&M manual are incorporated by reference into this permit and are enforceable permit conditions. The O&M manual and copies of any manufacturer's manual(s) and recommendations shall remain on site at all times and shall be made available to DEQ representatives upon request.
 - Procedures for periodic calibration of the pressure drop monitor associated with Baghouse (A-B3), including calibration to an accuracy of within $\pm 5\%$ inches of water gauge. The monitor shall be calibrated on at least an annual basis or as specified by the manufacturer.
-

Performance Testing Requirements

3.11 BART Initial Performance Tests

- On or before December 20, 2016, performance tests shall be conducted on the Riley Boiler exhaust to demonstrate compliance with the following emission limit, in accordance with IDAPA 58.01.01.405 and IDAPA 58.01.01.157:
 - The Riley Boiler PM₁₀ emission limit in pounds per hour (Permit Condition 3.4)
 - Within 180 days of initial startup of Coal-Firing LNBs (Permit Condition 3.7), performance tests shall be conducted on the Riley Boiler exhaust and the B&W Boilers exhaust to demonstrate compliance with the following emission limits, in accordance with IDAPA 58.01.01.405 and IDAPA 58.01.01.157:
 - The Riley Boiler NO_x emission limit in pounds per hour (Permit Condition 3.4)
 - The B&W Boilers combined NO_x emission limit in pounds per hour (Permit Condition 3.5)
-

3.12 CO Initial Performance Tests

Within 180 days of initial startup of the Coal-Firing LNBs (Permit Condition 3.7), performance tests shall be conducted on the Riley Boiler and B&W Boilers exhaust stacks to determine the following emission rates, in accordance with IDAPA 58.01.01.405 and IDAPA 58.01.01.157:

- The Riley Boiler CO emissions in pounds per hour,
 - The B&W Boilers combined CO emissions in pounds per hour
-

3.13 Periodic Performance Testing

After completing the BART initial performance tests, performance tests to determine PM₁₀ and NO_x emissions from the Riley Boiler exhaust and to determine NO_x emissions from the B&W Boilers exhaust shall be conducted as described in Permit Condition 3.11 during the Beet Campaign each year, in accordance with IDAPA 58.01.01.405 and IDAPA 58.01.01.157, unless another testing frequency has been approved by DEQ. For the purposes of this requirement, the Beet Campaign shall be defined as October through February of each year.

3.14 Performance Test Conditions, Monitoring, and Recordkeeping

Each required performance test (Permit Conditions 3.11 through 3.13) shall be conducted using an approved test method (Permit Condition 2.4) and under the following conditions unless otherwise approved by DEQ, in accordance with IDAPA 58.01.01.405, IDAPA 58.01.01.157, and General Provision 6:

- Emissions shall be measured while combusting coal fuel in the boiler(s) being tested
- Three separate test runs shall be conducted for each performance test
- The permittee shall monitor and record the following during each performance test for the boiler tested, unless otherwise approved by DEQ:
 - Steam production rate of the boiler, in pounds per hour (lb steam/hr), once every 15 minutes;
 - Coal feed rate to the boiler, in tons per hour (T/hr), once every 15 minutes (the coal feed rate may be determined using alternate relevant operational parameter(s) and a calculation method which has been approved by DEQ);
 - Natural gas firing rate of the boiler, in million standard cubic feet per hour (MMscf/hr), once every 15 minutes;
 - Highest heating value and analysis results of the coal fuel fired, including ash content; and
 - Pressure drop across Baghouse (A-B3) during each Riley Boiler PM₁₀ test, in inches water gauge (iwg), once every 15 minutes.

3.15 Performance Test Reporting

The permittee shall submit performance test reports to DEQ which include records of the monitoring required (Permit Condition 3.14) and in accordance with the performance testing general provision (General Provision 6). Performance test reports shall be submitted by the permittee to the DEQ address provided (Permit Condition 2.3).

Compliance Notifications

3.16 BART Compliance Notifications

- If coal-firing LNBS have not been installed by July 22, 2016 (Permit Condition 3.7), the permittee shall provide written notification to DEQ describing the method(s) used on the Riley Boiler to disable coal-firing and to ensure that coal is not fired in the Riley Boiler (Permit Condition 3.9) until the coal-firing LNBS have been installed.
- Notification of the anticipated date of initial startup of Coal-Firing LNBS (Permit Condition 3.7) shall be provided not more than sixty days or less than thirty days prior to such date as provided in General Provision 5.
- Notifications shall be submitted to the DEQ address provided (Permit Condition 2.3).

4. SOUTH PULP DRYER

Operating Requirements

4.1 BART 40 CFR 51.308, Subpart P – Shutdown of South Pulp Dryer

The permittee shall permanently shut down the South Pulp Dryer (S-D1).

5. TIER II PERMIT TO OPERATE GENERAL PROVISIONS

General Compliance

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 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.]
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 58.01.01.405, 5/1/94]
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 58.01.01.406, 5/1/94]

Inspection and Entry

4. Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:
 - a. 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;
 - b. Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. 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. The permittee shall furnish DEQ written notifications as follows:
 - a. A notification of the date of initiation of construction, within five working days after occurrence;
 - b. A notification of the date of any suspension of construction, if such suspension lasts for one year or more;
 - c. 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;
 - d. A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and

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

[IDAPA 58.01.01.405, 5/1/94]

Performance Testing

6. 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.

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.

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

7. 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 58.01.01.405, 5/1/94]