



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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

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

January 29, 2010

Dale Baker, Unit Director
J. R. Simplot Company, Caldwell Plant
P. O. Box 1059
Caldwell, ID 83606

RE: Facility ID No. 027-00009, J. R. Simplot Company, Caldwell Plant
Final Permit Letter

Dear Mr. Baker:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2009.0136 to J. R. Simplot Company, Caldwell Plant for the Boiler No. 1 biogas project located at Caldwell, in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho).

This permit is based on your permit application received on November 10, 2009, and supplemental information provided on December 7, 2009 and January 15, 2010. This permit is effective immediately and replaces PTC No. 2008.0091, issued on July 11, 2008. This permit does not release J. R. Simplot Company from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

This permit to construct does not contravene any existing Tier I operating permit conditions, therefore the process or equipment may be operated in accordance with the permit to construct before the Tier I operating permit is issued. The permit to construct will be incorporated into the Tier I operating permit at the time of renewal.

Pursuant to General Provision 31 of your permit, it is required that Construction and Operation Notification be provided. Please provide this information as listed to DEQ's Boise Regional Office, 1445 N. Orchard, Boise, ID 83709, Fax (208) 373-0287.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with J. R. Fuentes, Area Source Specialist, at (208) 373-0550 to review and discuss the terms and conditions of this permit. Should you choose to schedule this meeting, DEQ recommends 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.

J. R. Simplot Company, Caldwell
Page 2

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 Carole Zundel at (208) 373-0477 or carole.zundel@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

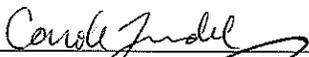
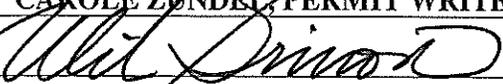
A handwritten signature in black ink, appearing to read "Mike Simon". The signature is fluid and cursive, with the first name "Mike" and last name "Simon" clearly distinguishable.

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS/fv

Project No. P-2009.0136

Enclosures

<p style="text-align: center;">Air Quality PERMIT TO CONSTRUCT State of Idaho Department of Environmental Quality</p>	PERMIT	CLASS	SIC
	P-2009.0136	A	2037
	FACILITY ID	AQCR	NAICS
	027-00009	64	311411
	ZONE	UTM COORDINATES (km)	
	11	521.5	4835.0
PERMITTEE			
J. R. Simplot Company, Caldwell Plant			
PROJECT			
Permit to construct revision			
MAILING ADDRESS	CITY	STATE	ZIP
P. O. Box 1059	Caldwell	ID	83606
FACILITY CONTACT	TITLE	TELEPHONE	
Lance Carter	Environmental Manager	(208) 454-4360	
RESPONSIBLE	TITLE	TELEPHONE	
Dale Baker	Unit Director	(208) 454-4201	
EXACT PLANT LOCATION		COUNTY	
Two miles west of Caldwell on Highway 19		Canyon	
GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS			
Potato processing			
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>			
 CAROLE ZUNDEL, PERMIT WRITER		DATE ISSUED	January 29, 2010
 MIKE SIMON, STATIONARY SOURCE MANAGER			

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PERMIT TO CONSTRUCT SCOPE

Purpose

1. This is a revised permit to construct (PTC) for a new burner on Boiler No. 1 to burn biogas from the anaerobic digester.
2. Those permit conditions that have been modified or revised by this permitting action are identified by a date citation located directly under the permit condition and on the right hand margin.
3. This PTC replaces the following PTC's:
 - Permit to Construct No. P-2008.0091, issued on June 14, 2006, and modified on July 11, 2008
 - Permit to Construct No. P-030014, issued on October 17, 2003
4. The emission sources regulated by this permit are listed in the following table.

Table 1 REGULATED SOURCES

Source Descriptions	Emission Controls
ADI-BVF Anaerobic Digester	Flare
Name: Boiler No. 1 Manufacturer: English Boiler & Tube Boiler Model: 80DD325, with condensing economizer Serial No.: 28016 Manufacture Date: 2008 Fuel: Natural Gas and Biogas Max Capacity: 98.25 MMBtu/hr	Flue Gas Recirculation

ADI-BVF ANAEROBIC DIGESTER

Process Description

5. Process Description

The primary purpose of the ADI-BVF anaerobic digester is to biologically reduce organic matter content in wastewater prior to land application.

6. Emission Controls Description

Emissions from the ADI-BVF anaerobic digester are controlled by a waste flare system, which converts biogases formed in the digester to CO₂, SO₂, and water. Emissions can also be burned in Boiler No. 1.

Emission Limits

7. Emission Limits

The total SO₂ emissions from the combustion of biogas from the ADI-BVF digester flare stack and the No. 1 boiler shall not exceed 90.0 tons per any consecutive 12-month period.

[January 29, 2010]

8. Opacity Limit

Emissions from the ADI-BVF digester flare, or any other stack, vent, or functionally equivalent opening associated with the ADI-BVF digester, 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.

[October 17, 2003]

Operating Requirements

9. Hydrogen Sulfide Limit in Biogas

The H₂S concentration in the biogas shall not exceed a maximum of 5391 parts per million by volume (ppmv).

[October 17, 2003]

10. Hydrogen Sulfide Flowrate Limit

The biogas flowrate shall not exceed a maximum of 529 standard cubic feet per minute.

[January 29, 2010]

11. Chemical Oxygen Demand Reduction Limit

The COD reduction of the wastewater in the ADI-BVF digester shall be limited to an average of 2,000,000 pounds per month during any 12-month period. This permit limit shall expire upon initiation of the monitoring of the biogas flow rate to the flare and Boiler No. 1.

[January 29, 2010]

12. Pilot Flame Requirement

The ADI-BVF digester flare shall be operated with a pilot flame present at all times during the operation of the digester.

[October 17, 2003]

13. Reasonable Control of Fugitive Emissions

All reasonable precautions shall be taken to prevent PM from becoming airborne as required in IDAPA 58.01.01.651. In determining what is reasonable, considerations will be given to factors such as the

proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of PM. Precautions used to provide reasonable control of fugitive emissions will be described in a fugitive dust control plan that is developed, implemented, and maintained by the permittee at the facility at all times and made available to DEQ representatives upon request. Some of the reasonable precautions include, but are not limited to, the following:

- Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.
- Application, where practical, of asphalt, oil, water or suitable chemicals to, or covering of dirt roads, material stockpiles, and other surfaces which can create dust.
- Installation and use, where practical, of hoods, fans and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
- Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.
- Paving of roadways and their maintenance in a clean condition, where practical.
- Prompt removal of earth or other stored material from streets, where practical.

[October 17, 2003]

Monitoring and Recordkeeping Requirements

14. Biogas Flow Monitoring

The permittee shall install, calibrate, maintain, and operate a biogas flowmeter to measure the biogas being burned at the flare and Boiler No. 1 from the anaerobic digester. The biogas flowrate shall be monitored continuously and averaged and recorded once per hour. The actual cubic feet per minute (acfm) flow values measured shall be converted to standard cubic feet per minute (scfm) to compare to the biogas flowrate limit in this permit.

[January 29, 2010]

15. Chemical Oxygen Demand Reduction Monitoring

The COD reduced in the ADI-BVF digester shall be monitored and recorded, at a minimum, on a monthly basis. Monthly values shall be used to calculate the 12-month averages. A compilation of the most recent two years of records shall be kept onsite and shall be made available to DEQ representatives upon request. This permit limit shall expire upon initiation of the monitoring of the biogas flow rate to the flare and Boiler No. 1.

[January 29, 2010]

16. Pilot Flame Monitoring

The permittee shall calibrate, maintain, and operate, in accordance with manufacturer's specifications, a thermocouple or other equivalent device that detects the presence of a flame. When a pilot flame is not present, the following information shall be recorded in a log: 1) the date(s) that the flame was not present, 2) the duration that the flame was not present, and 3) the reason that the pilot flame was not present. A compilation of the most recent two years of records shall be kept onsite and shall be made available to DEQ representatives upon request.

[October 17, 2003]

17. Opacity Monitoring

Opacity shall be determined using the procedures contained in IDAPA 58.01.01.625. The permittee shall monitor visible emissions weekly and shall keep records of the observations, complete with conditions at

the time of observation. A compilation of the most recent two years of records shall be kept onsite and shall be made available to DEQ representatives upon request.

[October 17, 2003]

18. Operations and Maintenance Manual Requirements

The permittee shall maintain an O&M manual for the ADI-BVF digester flare that describes the procedures that will be followed to comply with the general provision regarding maintenance and efficient operation of the control equipment and the manufacturer specifications for the air pollution control device. This manual shall remain onsite at all times and shall be made available to DEQ representatives upon request.

[October 17, 2003]

STEAM GENERATING PLANT – BOILER NO. 1

Process Description

19. Process Description

Boiler No. 1 is a natural gas and biogas fired boiler that provides process steam to heat potato steam peelers, blanchers, and fryers. Boiler No. 8 (Kewanee Boiler, Emission Point B8, 80.8 MMBtu/hr rated capacity, natural gas-fired) is not addressed in this permit since it was installed in 1966 and has not been modified since. Boilers No. 9, No. 10, and No. 11 have been permanently removed from service.

20. Emission Controls Description

Table 2 BOILER NO. 1 DESCRIPTION

Emissions Units / Processes	Emission Control Devices	Emission Points
Name: Boiler No. 1 Manufacturer: English Boiler & Tube Boiler Model: 80DD325, with condensing economizer Serial No.: 28016 Manufacture Date: 2008 Fuel: Natural Gas and Biogas Max Capacity: 98.25 MMBtu/hr	Flue Gas Recirculation	B01

Operating Requirements

21. Fuel Type Restriction

Boiler No. 1 shall be fired on natural gas or a mixture of natural gas and biogas.

[January 29, 2010]

22. Existing Boiler No. 10

Boiler No. 10 shall be permanently shut down and rendered inoperable prior to operating Boiler No. 1.

[January 29, 2010]

23. Emissions Control Device

Boiler No. 1 shall be equipped with a flue gas recirculation system. The flue gas recirculation system shall be operational at all times that the boiler is operating.

[January 29, 2010]

Monitoring and Recordkeeping Requirements

24. 40 CFR 60 Subpart Dc, Fuel Monitoring

The permittee shall monitor and maintain records of the amount of natural gas and biogas combusted in Boiler No. 1 each day in accordance with 40 CFR 60.48c(g)(1), or the permittee may elect to record and maintain records of the amount of fuel combusted during each calendar month in accordance with 40 CFR 60.48c(g)(2); or to record and maintain records of the total amount of gas delivered to that property during each calendar month in accordance with 40 CFR 60.48c(g)(3).

[January 29, 2010]

Reporting Requirements

25. 40 CFR 60 Subpart A, Reporting

For Boiler No. 1, the permittee shall comply with all applicable notification requirements of 40 CFR 60.48c(a) and 40 CFR 60.7, including:

- Notification of the date of construction and the heat input capacity of the affected units, no later than 30 days after such date.
- Notification of the actual date of initial startup, postmarked within 15 days of such date.
- Notification of any physical and operational changes which may increase emissions, unless that change is specifically exempted by 40 CFR Subpart Dc or by 40 CFR 60.14(e). The notification shall be postmarked 60 days before the change is made, or as soon as reasonably practicable. The notification shall include: the precise nature of the change, present and proposed emission control systems, productive capacity before and after the change, and the expected completion date of the change.

Notifications should be submitted to the following address:

Department of Environmental Quality
Boise Regional Office
Attn: Air- NSPS Reporting
1445 N. Orchard
Boise, ID 83706

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

[July 11, 2008]

Compliance with 40 CFR 60 Subpart Dc

26. Should there be a conflict between 40 CFR 60 and the 40 CFR 60 requirements specified in the monitoring, recordkeeping, and reporting permit conditions in this permit, 40 CFR 60 shall govern.

[July 11, 2008]

PERMIT TO CONSTRUCT GENERAL PROVISIONS

General Compliance

27. 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.]
28. 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]
29. 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

30. 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

31. 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;
 - 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;
 - 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.

Performance Testing

32. 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.
33. 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.
34. 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

35. 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

36. 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

37. 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

38. 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

39. 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

40. 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

41. 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]