



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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

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

September 26, 2013

Scott Lusty, Mill Manager
J.R. Simplot Co. – Conda Pumping Station
3064 Conda Rd.
Soda Springs, ID 83276

RE: Facility ID No. 029-00040, J.R. Simplot Co. – Conda Pumping Station, Soda Springs, Permit Revision Notification

Dear Mr. Lusty:

Enclosed is revised Permit to Construct (PTC) P-2013.0037, Project 61225, which replaces the PTC issued September 6, 2013. This permit revises the Operation & Maintenance (O&M) manual standard language in Permit Conditions 2.9 and 2.12 and uses the language from an e-mail sent by Simplot to DEQ on September 23, 2013. The O&M language in Permit Conditions 2.9 and 2.12 now allows more flexibility for implementation of the permit. Please replace the permit that DEQ recently mailed you with this permit. The accompanying Statement of Basis document remains unchanged.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Simon".

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS/drp

Enclosure

Permit No. P-2013.0037 Project 61267

AIR QUALITY

PERMIT TO CONSTRUCT

Permittee J.R. Simplot Co. – Conda Pumping Station
Permit Number P-2013.0037
Project ID 61267
Facility ID 029-00040
Facility Location 3064 Conda Rd.
Soda Springs, ID 83276

Permit Authority

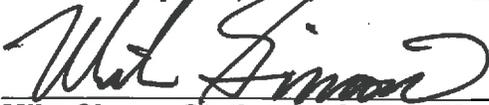
This permit (a) is issued according to the “Rules for the Control of Air Pollution in Idaho” (Rules), IDAPA 58.01.01.200–228; (b) pertains only to emissions of air contaminants regulated by the State of Idaho and to the sources specifically allowed to be constructed or modified by this permit; (c) has 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 26, 2013



Darrin Pampajan

Darrin Pampajan, P.E., Permit Writer



Mike Simon

Mike Simon, Stationary Source Manager

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1 Permit Scope

Purpose

1.1 This is the initial permit to construct (PTC) for a new calciner operation at the Conda pumping station

Regulated Sources

Table 1.1 lists all sources of regulated emissions in this permit.

Table 1.1 Regulated Sources

| Permit Section | Source | Control Equipment |
|----------------|---|--|
| 1 | <p><u>Calciner:</u> Manufacturer: Custom built Model: N/A Burner Model: Maxon 3 Kinemax Manufacture Date: 2013 Heat input rating: 2.0 MMBtu/hr Max. throughput: 0.75 T/hr, 2,800 T/yr Supplemental Fuel: Natural gas only Primary Fuel: Ore</p> | <p><u>Calciner Cyclone:</u> Manufacturer: Custom built – refractory lined Model: N/A Designed flowrate: 500-2,500 scfm Pressure drop: 2-8 in-H₂O PM₁₀ control efficiency: 75%</p> <p><u>Calciner Wet Scrubber:</u> Manufacturer: Custom built Model: N/A Type: Gentrified/Venturi/Packed Bed Liquor flow: 6-14 gpm Pressure drop: 40-50 in-H₂O PM₁₀ control efficiency: 98% SO₂ control efficiency: 80%</p> |
| 2 | <p><u>Materials handling:</u> Open receiving/raw rock storage pile Raw rock feed hopper and feed screw conveyor Open product storage bin and/or open product storage pile</p> | <p>All reasonable precautions shall be taken to prevent particulate matter from becoming airborne</p> |

2 Calciner

2.1 Process Description

Calcination is a thermal treatment process in presence of air applied to ore material to bring about a thermal decomposition, a phase transition, or the removal of a volatile fraction. The calcination process normally takes place at temperatures below the melting point of the product materials. The calciner will be operated as a pilot project and on a temporary basis to determine whether the concept of calcining certain phosphate rock from the Smoky Canyon mine is a feasible means of beneficiation.

2.2 Control Device Descriptions

Table 2.1 Calciner Description

| Emissions Units / Processes | Control Devices | Emission Points |
|--|---|--------------------------------|
| <u>Calciner:</u> Manufacturer: Custom built Model: N/A Burner Model: Maxon 3 Kinemax Manufacture Date: 2013 Heat input rating: 2.0 MMBtu/hr Max. throughput: 0.75 T/hr, 2,800 T/yr Supplemental Fuel: Natural gas only Primary Fuel: Ore | <u>Calciner Cyclone:</u> Manufacturer: Custom built – refractory lined Model: N/A Designed flowrate: 500-2,500 scfm Pressure drop: 2-8 in-H ₂ O PM ₁₀ /PM _{2.5} control efficiency: 75% <u>Calciner Wet Scrubber:</u> Manufacturer: Custom built Model: N/A Type: Gentrified/Venturi/Packed Bed Liquor flow: 6-14 gpm Pressure drop: 40-50 in-H ₂ O PM ₁₀ control efficiency: 98% SO ₂ control efficiency: 80% | (EP-01) Calciner Exhaust Stack |

Emission Limits

2.3 Emission Limits

The emissions from the calciner stack shall not exceed any corresponding emissions rate limits listed in Table 2.2.

Table 2.2 Calciner Emission Limits

| Source Description | PM ₁₀ /PM _{2.5} ^(b) | | SO ₂ | | NO _x | | CO | | VOC | | CO ₂ e | | F | | H ₂ SO ₄ | |
|--------------------|--|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|--------------------------------|---------------------|
| | lb/hr ^(c) | T/yr ^(d) | lb/hr ^(c) | T/yr ^(d) | lb/hr ^(c) | T/yr ^(d) | lb/hr ^(c) | T/yr ^(d) | lb/hr ^(c) | T/yr ^(d) | lb/hr ^(c) | T/yr ^(d) | lb/hr ^(c) | T/yr ^(d) | lb/hr ^(c) | T/yr ^(d) |
| Calciner | 1.13 | 2.11 | 1.20 | 2.27 | 1.05 | 1.96 | 0.31 | 0.57 | 0.05 | 0.09 | 920 | 1,717 | 0.16 | 0.31 | 0.01 | 0.02 |

- In absence of any other credible evidence, compliance is ensured by complying with permit operating, monitoring, and record keeping requirements.
- Particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers, including condensable particulate as defined in IDAPA 58.01.01.006.
- Pounds per hour, as determined by a test method prescribed by IDAPA 58.01.01.157, EPA reference test method, continuous emission monitoring system (CEMS) data, or DEQ-approved alternative.
- Tons per any consecutive 12-calendar month period.

2.4 Opacity Limit

Emissions from the calciner stack, or any other stack, vent, or functionally equivalent opening associated with the calciner, 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.

2.5 Odors

The permittee shall not allow, suffer, cause, or permit the emission of odorous gasses, liquids, or solids to the atmosphere in such quantities as to cause air pollution in accordance with IDAPA 58.01.01.776.01.

Operating Requirements

2.6 Ore Throughput Limits

Ore processing throughput shall not exceed the following limits:

- 18.0 tons per day
- 2,800 tons per consecutive 12-months

2.7 Cyclone Requirement

The Permittee shall install cyclone to control PM₁₀/PM_{2.5} emissions from the calciner.

2.8 Cyclone Operating Parameters Monitoring Device

The Permittee shall install a device for the continuous measurement of the pressure drop across the cyclone in inches of water.

2.9 Cyclone Operating Parameters

The cyclone Operations and Maintenance (O&M) manual shall be submitted to DEQ within 60 days of startup of the air pollution control device for review and comment and shall contain a certification by a responsible official. Any changes to the O&M Manual shall be submitted within 15 days of the change. The O&M manual for the control device shall describe the procedures that will be followed to comply with the General Compliance General Provision of this permit considering the manufacturer specifications for the air pollution control device. The O&M manual shall be a Permittee developed document independent of the manufacturer supplied operating manual but may include summaries of procedures included in the manufacturer supplied operating manual. At a minimum the following items shall be included in the manual:

- Pressure drop across the cyclone in inches of water.

The contents of the O&M manual shall be based on manufacturer's specifications, as well as, operator knowledge and experience. A copy of the manufacturer's recommendations shall be included with the O&M manual and both shall be made available to DEQ representatives upon request.

The operation and monitoring requirements specified in the O&M manual are incorporated by reference to this permit and are enforceable permit conditions.

2.10 Wet Scrubber Requirement

The Permittee shall install a gentrified/venturi/packed bed scrubber to control PM₁₀/PM_{2.5} and SO₂ emissions from the calciner.

2.11 Wet Scrubber Operating Parameters Monitoring Device

The Permittee shall install:

- A device for the continuous measurement of the pressure drop across the scrubber in inches of water.
- A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber in gallons per minute.

2.12 Wet Scrubber Operating Parameters

The wet scrubber Operations and Maintenance (O&M) manual shall be submitted to DEQ within 60 days of startup of the air pollution control device for review and comment and shall contain a certification by a responsible official. Any changes to the O&M Manual shall be submitted within 15 days of the change. The O&M manual for the control device shall describe the procedures that will be followed to comply with the General Compliance General Provision of this permit considering the manufacturer specifications for the air pollution control device. The O&M manual shall be a Permittee developed document independent of the manufacturer supplied operating manual but may include summaries of procedures included in the manufacturer supplied operating manual. At a minimum the following items shall be included in the manual:

- Pressure drop across the wet scrubber in inches of water.
- Scrubbing liquid flow rate for the wet scrubber in gallons per minute.

The contents of the O&M manual shall be based on manufacturer's specifications, as well as, operator knowledge and experience. A copy of the manufacturer's recommendations shall be included with the O&M manual and both shall be made available to DEQ representatives upon request.

The operation and monitoring requirements specified in the O&M manual are incorporated by reference to this permit and are enforceable permit conditions.

2.13 Five Year Calciner Operation Limitation

Five years after permit issuance the Permittee shall cease operation of the calciner due to short term emissions allowances per IDAPA 58.01.01.215.15. If continued operation of the calciner is desired after five years the Permittee shall apply for a new Permit to Construct.

Monitoring and Recordkeeping Requirements

2.14 Ore Throughput Monitoring

For each day that the calciner is operated the Permittee shall maintain the following records:

- The amount of ore processed in tons per day to demonstrate compliance with the daily Ore Throughput Limits permit condition.

Monthly ore processing throughput shall be determined by summing daily throughput over the previous calendar month. Consecutive 12-months of ore processing throughput shall be determined by summing the monthly throughput over the previous consecutive 12 month period to demonstrate compliance with the consecutive 12-months Ore Throughput Limits permit condition.

2.15 Cyclone Operating Parameters Monitoring

The Permittee shall monitor and record the pressure drop of the gas stream through the cyclone in inches of water once each day when the calciner is in operation.

2.16 Cyclone Inspection Monitoring

The Permittee shall inspect the cyclone each month. The inspection shall be to assure that the cyclone is not plugged, eroded or otherwise not functioning as designed. The Permittee shall maintain a record of the inspections and any maintenance conducted.

2.17 Wet Scrubber Operating Parameters Monitoring

The Permittee shall perform the following:

- Monitor and record the pressure drop of the gas stream through the scrubber in inches of water once each day when the calciner is in operation.
- Monitor and record the scrubbing liquid flow rate in gallons per minute once each day when the calciner is in operation.

2.18 Recordkeeping

All monitoring and recordkeeping documentation required by this permit shall be maintained in accordance with the Recordkeeping general provision.

3 Materials Handling

3.1 Process Description

Phosphate containing ore will be stored at the facility with an open receiving/raw storage pile and conveyed using a rock feed hopper and a feed screw conveyor.

Operating Requirements

3.2 Reasonable Control of Fugitive Emissions

In accordance with IDAPA 58.01.01.650-651, all reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

The permittee shall monitor and maintain records of the frequency and the method(s) used (e.g., water, chemical dust suppressants) to reasonably control fugitive dust emissions.

The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

The permittee shall conduct a daily facility-wide inspection of potential sources of fugitive dust emissions, during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive dust emissions are effective. If fugitive dust emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive dust emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive emissions were present (if observed), any corrective action taken in response to the fugitive dust emissions, and the date the corrective action was taken.

Monitoring and Recordkeeping Requirements

3.3 Fugitive Dust Monitoring and Recordkeeping

The permittee shall conduct a facility-wide inspection of potential sources of visible fugitive emissions during daylight hours and under normal operating conditions once each day that the calciner operates, to demonstrate compliance with the Reasonable Control of Fugitive Emissions permit condition. The inspection shall consist of a see/no see evaluation for each potential source of visible fugitive emissions. If any visible fugitive emissions are present from any source of fugitive emissions, the permittee shall take appropriate corrective action as expeditiously as practicable to mitigate the visible fugitive emissions.

The permittee shall maintain records of the results of each see/no see evaluation of visible fugitive emissions inspection. The records shall include, at a minimum, the date and results of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time visible fugitive emissions are present (if observed), any corrective action taken in response to the visible fugitive emissions, and the date corrective action was taken.

3.4 Recordkeeping

All monitoring and recordkeeping documentation required by this permit shall be maintained in accordance with the Recordkeeping general provision.

4 General Provisions

General Compliance

4.1 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.]

4.2 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]

4.3 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

4.4 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

4.5 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]

4.6 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

- 4.7 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.
- 4.8 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.
- 4.9 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

- 4.10 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

- 4.11 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

- 4.12 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

- 4.13 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

- 4.14 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

- 4.15 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

- 4.16 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]