



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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

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

March 25, 2010

Jim Cagle
Risk Manager EHS
Nu-West Industries
3010 Conda Road
Soda Springs, Idaho 83276

RE: Facility ID No. 029-00003, Nu-West, Soda Springs
Final Permit Letter

Dear Mr. Cagle:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2010.0002 to Nu-West for the sulfuric acid plant modifications, 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 December 21, 2009. This permit is effective immediately and replaces PTC No. P-040307, issued on December 10, 2004. This permit does not release Nu-West 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. As you requested, the permit to construct will be incorporated into the Tier I operating permit at the time of renewal.

Pursuant to General Provision 5 of your permit, it is required that Construction and Operation Notification be provided. Please provide this information as listed to DEQ's Pocatello Regional Office, 444 Hospital Way, #300, Idaho, 83201, Fax (208) 236-6168.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Rick Elkins, Air Quality Analyst, at (208) 236-6160 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.

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 Dan Pitman at (208) 373-0502 or

Nu-West Industries, Soda Springs
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daniel.pitman@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

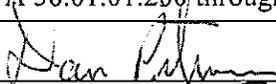
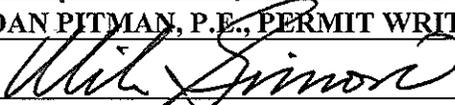
A handwritten signature in black ink, appearing to read "Mike Simon". The signature is written in a cursive, flowing style with a large initial "M".

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS\dp

Project No. P-2010.0002

Enclosures

<p style="text-align: center;">Air Quality PERMIT TO CONSTRUCT State of Idaho Department of Environmental Quality</p>	PERMIT NUMBER	CLASS	SIC
	P-2010.0002	A	2874
	FACILITY ID	AQCR	NAICS
	029-00003	61	325312
	ZONE	UTM COORDINATES (km)	
12	455.8	4731.8	
PERMITTEE			
Nu-West Industries, Inc., Conda Phosphate Operations			
PROJECT			
Permit to Construct Modification			
MAILING ADDRESS	CITY	STATE	ZIP
3010 Conda Road	Soda Springs	ID	83276
FACILITY CONTACT	TITLE	TELEPHONE	
James Cagle	Risk Manager EHS	208-547-4381, ext. 213	
RESPONSIBLE	TITLE	TELEPHONE	
Eric Vettergren	Plant Manager	208-547-4381	
EXACT PLANT LOCATION		COUNTY	
7 miles north of Soda Springs, 1.2 miles east of Highway 34		Caribou	
GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS			
Phosphate-based fertilizer products			
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>			
		DATE ISSUED	March 25, 2010
DAN PITMAN, P.E., PERMIT WRITER			
			
MIKE SIMON, STATIONARY SOURCE MANAGER			

PERMIT TO CONSTRUCT SCOPE3
EAST SULFURIC ACID PLANT4
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PERMIT TO CONSTRUCT SCOPE

Purpose

1. This is a modification of a permit to construct for the East Sulfuric Acid Plant. The No. 2 absorbing tower is being replaced, cesium catalyst is being added to the fourth bed of the converter, the final absorbing tower heat exchanger is being replaced, the cold interpass heat exchanger is being upgraded, the product cooler is being replaced, and acid pumps are being upgraded.
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 Permit to Construct No. P-040307, issued on December 10, 2004.
4. The emission sources regulated by this permit are listed in the following table.

Table 1 REGULATED SOURCE

Source Descriptions	Emission Controls
East Sulfuric Acid Plant	Dual absorption and vertical tube mist eliminator

EAST SULFURIC ACID PLANT

5. Process Description

The East Sulfuric Acid Plant receives elemental sulfur from offsite. The sulfur is combusted to form sulfur dioxide (SO₂). The sulfur dioxide is converted to sulfur trioxide (SO₃) in a series of four catalytic converters; the fourth converter includes a cesium catalyst. The SO₃ is converted to sulfuric acid in two absorption towers.

6. Emission Controls Description

Table 2 EAST SULFURIC ACID PLANT DESCRIPTION

Emissions Units / Processes	Emission Control Devices	Emission Points
East Sulfuric Acid Plant	Dual Absorber and Vertical Tube Mist Eliminator	East Sulfuric Acid Plant Stack
Cooling Tower	none	Fugitive
Two Waste Heat Boilers (use natural gas during startup)	none	Boiler Vent (used only during startup)
Sulfur Storage and Transfer	Enclosed Systems	Fugitive
Acid Storage Tanks and Acid Pump Tanks	Enclosed Systems	Fugitive

Emission Limits

7. The emissions from the East Sulfuric Acid Plant stack shall not exceed any emissions rate limit in the following table.

Table 3 EAST SULFURIC ACID PLANT EMISSION LIMITS^a

Source Description	SO ₂	
	lb/hr ^b	T/yr ^c
East Sulfuric Plant Stack	258	735.5

- a) In absence of any other credible evidence, compliance is assured by complying with permit operating, monitoring, and record keeping requirements.
 b) Pounds per hour, 3 hour rolling average, as determined by multiplying sulfuric acid production data by the CEM results required by 40 CFR 60.84, or DEQ-approved alternative.
 c) Tons per 12 month rolling average (any 12 consecutive months).

[March 25, 2010]

8. Rules for Control of Sulfur Oxide Emissions from Sulfuric Acid Plants

No person shall allow, suffer, cause or permit the operation of any sulfuric acid plant which emits sulfur oxides (SO_x) into the atmosphere in excess of twenty-eight (28) pounds per ton of 100% sulfuric acid produced in accordance with IDAPA 58.01.01.845-847.

Operating Requirements

9. Production Rate Limit

The East Sulfuric Acid Plant shall have a maximum daily production rate of 1,550 tons per day as 100% sulfuric acid.

[March 25, 2010]

Monitoring & Recordkeeping/Reporting Requirements

10. Demonstration of Compliance with the SO₂ pound per hour and ton per year limits

The permittee shall:

- Each hour calculate and record the three-hour rolling average SO₂ emissions in pounds per hour as the product of pounds of SO₂ per ton of 100% H₂SO₄ and tons of 100% H₂SO₄ produced (each hour calculate arithmetic average of the proceeding three-hour period);
- Each calendar month calculate and record SO₂ emissions in tons per year as the sum of the preceding 12 months total emissions.
- All three-hour running average sulfur dioxide emissions shall be reported to DEQ in a calendar-quarterly report. The report shall be received by DEQ no later than 30 days after each calendar quarter. All repairs or changes to the continuous emission monitoring system and any calibration problem shall be reported to DEQ within 7 days and shall be included in the quarterly report.

[March 25, 2010]

11. Production Monitoring

Each day, the permittee shall monitor and record the production of the East Sulfuric Acid Plant in ton/day of 100% sulfuric acid.

[March 25, 2010]

Performance Testing Requirements

12. Sulfur dioxide and sulfuric acid mist emission tests shall be performed at least once during each 13-month period using EPA Reference Methods 1, 2, 3, and 8, or DEQ approved alternative methods. All emission tests shall be performed in accordance with IDAPA 58.01.01.157 with the exception that all source testing shall be conducted in accordance with a written and DEQ approved protocol. Visible emissions shall be observed and recorded during the emissions tests using EPA Reference Method 9. A minimum of 24 observations shall be recorded. The production rate in tons of 100% H₂SO₄ per hour (T/hr) shall be recorded during each performance test; the production rate shall included in each test report.

NSPS Requirements – 40 CFR 60 Subpart H

13. NSPS 40 CFR 60 Subpart H – Standard for Sulfur Dioxide

The owner or operator shall not cause to be discharged into the atmosphere from the East Sulfuric Acid Plant any gases which contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 pounds per ton), the production being expressed as 100% H₂SO₄, in accordance with 40 CFR 60.82(a). Periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards, in accordance with 40 CFR 60.84(e).

14. NSPS 40 CFR 60 Subpart H – Standard for Acid Mist

Sulfuric acid mist emissions from the East Sulfuric Acid Plant shall not exceed 0.15 lb per ton of 100% sulfuric acid production in accordance with 40 CFR 60.83(a)(1) as determined by using the test methods and procedures specified in 40 CFR 60.85.

15. **NSPS 40 CFR 60 Subpart H – Standard for Opacity**

Visible emission limits from the East Sulfuric Acid Plant shall not exceed 10% opacity in accordance with 40 CFR 60.83(a)(2).

16. **NSPS 40 CFR 60 Subpart A – Excess Emissions**

Emissions in excess of the level of the applicable NSPS emission limits during periods of startup, shutdown, and malfunction shall not be considered a violation of the applicable emission limit, in accordance with 40 CFR 60.8(c).

[March 25, 2010]

17. **NSPS 40 CFR 60 Subpart H – Emission Monitoring with CEMS**

In accordance with 40 CFR 60.84(a), a continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the owner or operator. The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under 40 CFR 60.13(d), shall be sulfur dioxide (SO₂). Method 8 shall be used for conducting monitoring system performance evaluations under 40 CFR 60.13(c) except that only the SO₂ portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of SO₂.

- A conversion factor shall be established for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each 8-hour period in accordance with 40 CFR 60.84(b).
- In accordance with 40 CFR 60.84(c), the owner or operator shall record all conversion factors and values under 40 CFR 60.84(b) from which they were computed (i.e., CF, r, and s).
- Alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the continuous emission monitoring approach and calculation procedures in determining SO₂ emission rates in terms of the standard in accordance with 40 CFR 60.84(d).
- In accordance with 40 CFR 60.84(e), for the purpose of reports under 40 CFR 60.7(c), periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards under 40 CFR 60.82.

[March 25, 2010]

18. Should there be a conflict between Permit Conditions 13 -17 and 40 CFR 60 Subpart H, 40 CFR 60 Subpart H shall govern, including any amendments to that regulation.

[March 25, 2010]

PERMIT TO CONSTRUCT GENERAL PROVISIONS

General Compliance

19. 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.]**
20. 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]**
21. 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

22. 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

23. 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

24. 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.
25. 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.
26. 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

27. 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

28. 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

29. 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

30. 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

31. 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

32. 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

33. 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]