



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, ID 83706 • (208) 373-0502
www.deq.idaho.gov

Brad Little, Governor
John Tippetts, Director

July 2, 2020

Trish Arave, Plant Manager
J.R. Simplot Company – Don Siding Pocatello
P.O. Box 912
Pocatello, ID 83204

RE: Facility ID No. 077-00006, J.R. Simplot Company – Don Siding, Pocatello
Final Tier I Operating Permit Letter

Dear Ms. Arave:

The Department of Environmental Quality (DEQ) is issuing Tier I Operating Permit No. T1-2017.0024 to J.R. Simplot Company – Don Siding at Pocatello in accordance with IDAPA 58.01.01.300 through 386, Rules for the Control of Air Pollution in Idaho (Rules). This Tier 1 permit was a Minor Modification to modify the compliance assurance operating parameters for the defluorination scrubber.

The enclosed permit is effective immediately, summarizes the applicable requirements for your facility, and requires an annual compliance certification for all emissions units. This permit replaces Tier I Operating Permit No. T1-2017.0024 issued April 3, 2020. The enclosed operating permit is based on the information contained in your permit application received on May 11, 2020. Modifications to and/or renewal of this operating permit shall be requested in a timely manner in accordance with the Rules.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Melissa Gibbs, Regional Air Quality Manager, 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 call Kelli Wetzel at (208) 373-0502 or kelli.wetzel@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

A handwritten signature in cursive script that reads "Darin Parpian".

for, Mike Simon
Stationary Source Bureau Chief
Air Quality Division

MS\kw

Permit No. T1-2017.0024 PROJ 62445

Air Quality

TIER I OPERATING PERMIT

Permittee J.R. Simplot Company – Don Siding Pocatello
Permit Number T1-2017.0024
Project ID 62445
Facility ID 077-00006
Facility Location 1150 West Highway 30
Pocatello, ID 83204

Permit Authority

This permit (a) is issued according to the “Rules for the Control of Air Pollution in Idaho” (Rules) (IDAPA 58.01.01.300–386) (b) incorporates all applicable terms and conditions of prior air quality permits issued by the Idaho Department of Environmental Quality (DEQ) for the permitted source, unless the permittee emits toxic pollutants subject to state-only requirements pursuant to IDAPA 58.01.01.210 and the permittee elects not to incorporate those terms and conditions into this operating permit.

The permittee shall comply with the terms and conditions of this permit. The effective date of this permit is the date of signature by DEQ on this cover page.

Date Issued July 2, 2020

Date Expires April 3, 2025



Kelli Wetzels, Permit Writer



for, Mike Simon, Stationary Source Manager

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1 Acronyms, Units, and Chemical Nomenclature

acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BMP	best management practices
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CMS	continuous monitoring systems
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Idaho Department of Environmental Quality
dscf	dry standard cubic feet
EPA	United States Environmental Protection Agency
GHG	greenhouse gases
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
HHV	higher heating value
hp	horsepower
hr/yr	hours per consecutive 12-calendar-month period
ICE	internal combustion engines
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
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
MMBtu	million British thermal units
MMscf	million standard cubic feet
MRRR	Monitoring, Recordkeeping and Reporting Requirements
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
O ₂	oxygen
PC	permit condition
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers

ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PTC	permit to construct
PTE	potential to emit
PW	process weight rate
RICE	reciprocating internal combustion engines
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SPA	super phosphoric acid
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar-month period
T1	Tier I operating permit
T2	Tier II operating permit
ULSD	ultra low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compound

2 Permit Scope

Purpose

2.1 This Tier I operating permit establishes facility-wide requirements in accordance with the Idaho State Implementation Plan control strategy and the Rules.

This permit action is minor modification to update the CAM low-end indicator range for pressure drop for the defluorination scrubber at the Granulation No. 3 Plant. The new requirement is based on operating parameters that occurred during a source test conducted on April 21, 2020.

2.2 This Tier I operating permit incorporates the following permits, consent orders, and consent decree:

- Permit to Construct No. P- P-2016.0055 issued August 19, 2019, Replacement of an existing Tier II operating permit and five PTCs and incorporate emission limits from the 2004 RACT Consent Order and PM₁₀ emission limits for the Phosphoric Acid Manufacturing Plant.
- Permit to Construct No. 077-00006 issued September 13, 1995, Granulation No. 3 East Dry Bulk Station
- Permit to Construct No. 1260-0060 issued April 17, 1990, Extended Absorption Scrubber
- Consent Order signed September 1, 2004, Fluoride in Forage (State-only)
- Consent Order signed June 27, 2016, Fluoride in Forage and Resolution of the Compliance Schedule in the Tier I Operating Permit
- EPA Consent Decree signed December 3, 2015, Sulfuric acid plants (also incorporated into P-2016.0055)

2.3 This Tier I operating permit replaces the following permit(s):

- Tier I Operating Permit No. T1-2017.0024 issued April 3, 2020.

Regulated Sources

Table 2.1 lists all sources of regulated emissions in this permit.

Table 2.1 Regulated Sources

Permit Section	Source	Control Equipment
4	<p><u>Caterpillar Boiler Generator (an emergency CI generator)</u> Manufacturer: Caterpillar Rated capacity: 400 kw standby rating or 755 brake horsepower (hp) Maximum fuel usage: 36.65 gallons per hour Fuel type: diesel Manufactured date: prior to 1980</p> <p><u>Cummins Ore Receiving Generator (an emergency CI generator)</u> Manufacturer: Cummins Rated capacity: 350 kw standby rating or 535 brake hp Maximum fuel usage: 34.4 gallons per hour Fuel type: diesel Manufactured date: 1994</p> <p><u>TG Turning Gear (an emergency SI generator)</u> Manufacturer: CAT Rated capacity: 50 kW Fuel type: natural gas Manufactured date: 2018</p> <p><u>Sub 3400 (an emergency SI generator)</u> Manufacturer: Onan Rated capacity: 90 brake hp Fuel type: natural gas Manufactured date: 1997</p> <p><u>PPA Generator (Phone system, an emergency SI generator)</u> Manufacturer: Onan Rated capacity: 58 brake hp Fuel type: natural gas Manufactured date: 1995</p>	None
5	<p><u>Ammonium sulfate plant</u> Manufacturer: Simplot and various contractors Dryer rated capacity: 8.3 T/hr ammonium sulfate Dryer burner rated heat input rate: 3 MMBtu/hr Dryer installed date: 1964 Dryer last modified date: 1998 Cooler rated capacity: 8.3 T/hr ammonium sulfate Cooler installed date: 1964 Cooler last modified date: 1991</p>	Dryer Venturi scrubber Cooler Venturi scrubber Barometric condenser Building enclosure
6	<p><u>HPB&W boiler</u> Manufacturer: Babcock & Wilcox Model: FM 106-97 Rated heat input rate: 175 MMBtu/hr Rated steaming capacity: 120,000 lb/hr Burner type: LoNOx@ burner Fuel: natural gas Manufactured date: 2000 Installed date: 2000</p>	None

Permit Section	Source	Control Equipment
7	<u>Babcock and Wilcox boiler</u> Manufacturer: Nationwide Boiler Incorporated Model: Babcock and Wilcox FM 10-79 Rated heat input rate: 63.8 MMBtu/hr Rated steaming capacity: 58,000 lb/hr Burner type: COEN QLN, low NOx spud type Fuel: natural gas Manufactured date: 1977 Date installed: 2/17/95	None
8	<u>Granulation No. 1 process</u> Manufacturer: Anaconda Reactor/granulator rated capacity: 54.2 T/hr phosphate product Reactor/granulator installed date: 1961 Dryer rated capacity: 54.2 T/hr phosphate product Dryer rated heat input rate: 20 MMBtu/hr Dryer fuel type: natural gas Dryer installed date: 1961 Dryer last modified date: 1984/1985 Material handling rated capacity: 54.2 T/hr phosphate product Material handling equipment installed date: 1961 Material handling equipment last modified date: 1992	Cyclone and dryer scrubber in series Reactor/granulator scrubber Cooler baghouse Granulation No. 1 baghouse (also called vent baghouse)
9	<u>Granulation No. 2 process</u> Manufacturer: D.M. Westherly Reactor/granulator rated capacity: 52.1 T/hr phosphate product Reactor, granulator, and dryer installed date: 1964 Reactor, granulator, and dryer last modified date: 1992/1993 Dryer rated capacity: 52.1 T/hr phosphate product Dryer rated heat input rate: 20 MMBtu/hr Dryer fuel type: natural gas Material handling rated capacity: 52.1 T/hr phosphate product Material handling equipment installed date: 1964 Material handling equipment last modified date: 1992	Cyclone dust collector and Dryer venturi scrubber in series (primary function as process equipment) Tailgas scrubber Granulation No.2 Baghouse/dust baghouse Cooler baghouse
10	<u>Granulation No. 3 process</u> Manufacturer: various manufacturers including Simplot Mixer/blunger/dryer/granulator material handling rated capacity: 31.3 T/hr phosphate product Dryer rated heat input rate: 35 MMBtu/hr Dryer fuel type: natural gas Reactor, granulator, dryer, and granulator material handling equipment installed date: 1953 Reactor, granulator, dryer, and granulator material handling equipment last modified date: 2002 Defluorination process rated capacity: 21 T/hr phosphate product, 12 P ₂ O ₅ T/hr Defluorination process installed date: 2000 Limestone silos and limestone baghouse installed date: 1953 Limestone silos and limestone baghouse last modified date: 1989	Cyclone Entoleter scrubber Defluorination scrubber (material handling) Baghouse Limestone baghouse Diatomaceous earth baghouse1
11	<u>Gypsum stack (pile)</u> A fugitive source. Refer to Section 10 for details.	Reasonable control of fugitive emissions

Permit Section	Source	Control Equipment
12	<u>Phosphoric acid manufacturing plants</u> Manufacturer: Mulberry Welding and Simplot Rated capacity: 64.6 T/hr phosphoric acid, P ₂ O ₅ equivalent Installed date: 1985 Last modified date: 1992	Digester scrubber Belt filter scrubber
13	<u>Reclaim cooling towers</u> Manufacturer: east tower by Fluor, west tower by Lillie-Hoffman, and north tower by Thermal Dynamic Installed date: 1966 Last modified dates: 1976, 1990	Mist-eliminator (primary function as process equipment)
14	<u>Superphosphoric acid (SPA) plant</u> Manufacturer: various manufacturers including Simplot Rated capacity: 55 T/hr SPA, 69% of P ₂ O ₅ equivalent Installed date: 1972 Last modified date: 1999	Primary control scrubber Non-contact condenser and primary control scrubber Extended absorber system and primary control scrubber
15	<u>Sulfuric acid plant No. 300</u> Manufacturer: Monsanto Rated capacity: 1,750 T/day or 72.9 T/hr 100% H ₂ SO ₄ Installed date: February 1966 Last modified date: 2001	DynaWave reverse-jet scrubber followed by Ammsox packed-bed ammonia scrubber
16	<u>Sulfuric acid plant No. 400</u> Manufacturer: Chemetics Rated capacity: 166.7 T/hr 100% H ₂ SO ₄ Installed date: January 1986 Last modified date: 1992 - stack; 1993 economizer	Mist-eliminator (an inherent process equipment)

3 Facility-Wide Conditions

Table 3.1 contains a summary of requirements that apply generally to emissions units at the facility.

Table 3.1 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Monitoring, Recordkeeping, and Reporting Requirements
3.1-3.4	Fugitive Dust	Reasonable control	IDAPA 58.01.01.650–651	3.2–3.4, 3.24, 3.29
3.5, 3.6	Odors	Reasonable control	IDAPA 58.01.01.775–776	3.6, 3.24, 3.29
3.7-3.9	Visible Emissions	20% opacity for no more than 3 minutes in any 60-minute period	IDAPA 58.01.01.625	3.8, 3.9, 3.24, 3.29
3.10-3.14	Excess Emissions	Compliance with IDAPA 58.01.01.130-136	IDAPA 58.01.01.130–136	3.10-3.14, 3.24, 3.29
3.15	PM	Natural gas only 0.015 gr/dscf at 3% O ₂ Fuel oil only 0.05 gr/dscf at 3% O ₂ Coal only 0.05 gr/dscf at 8% O ₂ Wood only 0.08 gr/dscf at 8% O ₂	IDAPA 58.01.01.676–677	(see Emissions Unit/Source Name Section)
3.16, 3.17	Sulfur Content	ASTM grade No. 1 fuel oil ≤ 0.3% by weight ASTM grade No. 2 fuel oil ≤ 0.5% by weight	IDAPA 58.01.01.725	3.17, 3.24, 3.29
3.18	Open Burning	Compliance with IDAPA 58.01.01.600-623	IDAPA 58.01.01.600–623	3.18, 3.24, 3.29
3.19	Asbestos	Compliance with 40 CFR 61, Subpart M	40 CFR 61, Subpart M	3.19, 3.24, 3.29
3.20	Accidental Release Prevention	Compliance with 40 CFR 68	40 CFR 68	3.20, 3.24, 3.29
3.21	Recycling and Emissions Reductions	Compliance with 40 CFR 82, Subpart F	40 CFR 82, Subpart F	3.21, 3.24, 3.29
3.22, 3.23	NSPS/NESHAP General Provisions	Compliance with 40 CFR 60/63, Subpart A	IDAPA 58.01.01.107.03	3.22, 3.23, 3.24, 3.29
3.24	Monitoring and Recordkeeping	Maintenance of required records	IDAPA 58.01.01.322.06	3.24, 3.29
3.25-3.28	Testing	Compliance testing	IDAPA 58.01.01.157	3.25–3.28, 3.24, 3.29
3.29	Reports and Certifications	Submittal of required reports, notifications, and certifications	IDAPA 58.01.01.322.08	3.29
3.30	Incorporation of Federal Requirements by Reference	Compliance with applicable federal requirements referenced	IDAPA 58.01.01.107	3.30
3.31	Special studies	Maintain records of material flow; Monitor ambient fluoride in vegetation used for feed and forage	Consent order 9/1/04	3.24, 3.32

Fugitive Dust

- 3.1** All reasonable precautions shall be taken to prevent particulate matter (PM) from becoming airborne in accordance with IDAPA 58.01.01.650–651.
[IDAPA 58.01.01.650–651, 4/11/15]
- 3.2** 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 emissions.
[IDAPA 58.01.01.322.06, 07, 5/1/94]
- 3.3** The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receiving 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.
[IDAPA 58.01.01.322.06, 07, 5/1/94]
- 3.4** Except for the Granulation No. 3 Plant, the permittee shall conduct a monthly facility wide inspection of potential sources of fugitive emissions during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive 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 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 emissions, and the date the corrective action was taken.
[IDAPA 58.01.01.322.06, 07, 5/1/94]

Odors

- 3.5** The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.
[IDAPA 58.01.01.775–776 (state only), 5/1/94]
- 3.6** The permittee shall maintain records of all odor complaints received. If the complaint has merit, the permittee shall take appropriate corrective action as expeditiously as practicable. 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.
[IDAPA 58.01.01.322.06, 07 (state only), 5/1/94]

Visible Emissions

- 3.7** The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, NO_x, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.
[IDAPA 58.01.01.625, 4/5/00]

3.8 The permittee shall conduct a monthly facility-wide inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. Sources that are monitored using a continuous opacity monitoring system (COMS) are not required to comply with this permit condition. The inspection shall consist of a see/no see evaluation for each potential source of visible emissions. If any visible emissions are present from any point of emission, the permittee shall either:

- a) Take appropriate corrective action as expeditiously as practicable to eliminate the visible emissions. Within 24 hours of the initial see/no see evaluation and after the corrective action, the permittee shall conduct a see/no see evaluation of the emissions point in question. If the visible emissions are not eliminated, the permittee shall comply with b).

or

- b) Perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20%, as measured using Method 9, for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective actions and report the period or periods as an excess emission in the annual compliance certification and in accordance with IDAPA 58.01.01.130–136.

[IDAPA 58.01.01.322.06, 5/1/94]

3.9 The permittee shall maintain records of the results of each visible emission inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

[IDAPA 58.01.01.322.07, 5/1/94]

Excess Emissions

Excess Emissions-General

3.10 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130–136 for excess emissions. The provisions of IDAPA 58.01.01.130–136 shall govern in the event of conflicts between the excess emissions facility wide conditions (Permit Conditions 3.10 through 3.14) and the regulations of IDAPA 58.01.01.130–136.

During an excess emissions event, the permittee shall, with all practicable speed, initiate and complete appropriate and reasonable action to correct the conditions causing the excess emissions event; to reduce the frequency of occurrence of such events; to minimize the amount by which the emission standard is exceeded; and shall, as provided below or upon request of DEQ, submit a full report of such occurrence, including a statement of all known causes, and of the scheduling and nature of the actions to be taken.

[IDAPA 58.01.01.132, 4/5/00]

Excess Emissions-Startup, Shutdown, and Scheduled Maintenance

3.11 In all cases where startup, shutdown, or scheduled maintenance of any equipment or emission unit is expected to result or results in an excess emissions event, the permittee shall demonstrate compliance with IDAPA 58.01.01.133.01(a) through (d), including, but not limited to, the following:

- Prohibiting any scheduled startup, shutdown, or maintenance resulting in excess emissions shall occur during any period in which an Atmospheric Stagnation Advisory or a Wood Stove Curtailment Advisory has been declared by DEQ.
- Notifying DEQ of the excess emissions event as soon as reasonably possible, but no later than two hours prior to, the start of the event, unless the permittee demonstrates to DEQ's satisfaction that a shorter advance notice was necessary.
- Reporting and recording the information required pursuant to the excess emissions reporting and recordkeeping requirements (Permit Conditions 3.13 and 3.14) and IDAPA 58.01.01.135 and 136 for each excess emissions event due to startup, shutdown, or scheduled maintenance.

[IDAPA 58.01.01.133, 4/11/06]

Excess Emissions-Upset, Breakdown, or Safety Measures

3.12 In all cases where upset or breakdown of equipment or an emissions unit, or the initiation of safety measures, results or may result in an excess emissions event, the permittee shall demonstrate compliance with IDAPA 58.01.01.134.01(a) and (b) and the following:

- Immediately undertake all appropriate measures to reduce and, to the extent possible, eliminate excess emissions resulting from the event and to minimize the impact of such excess emissions on the ambient air quality and public health.
- Notify DEQ of any upset, breakdown, or safety event that results in excess emissions. Such notification shall identify the time, specific location, equipment or emissions unit involved, and (to the extent known) the cause(s) of the occurrence. The notification shall be given as soon as reasonably possible, but no later than 24 hours after the event, unless the permittee demonstrates to DEQ's satisfaction that the longer reporting period was necessary.
- Report and record the information required pursuant to the excess emissions reporting and recordkeeping facility wide conditions (Permit Conditions 3.13 and 3.14) and IDAPA 58.01.01.135 and 136 for each excess emissions event caused by an upset, breakdown, or safety measure.
- During any period of excess emissions caused by upset, breakdown, or operation under facility safety measures, DEQ may require the permittee to immediately reduce or cease operation of the equipment or emissions unit causing the period until such time as the condition causing the excess has been corrected or brought under control. Such action by DEQ shall be taken upon consideration of the factors listed in IDAPA 58.01.01.134.03 and after consultation with the permittee.

[IDAPA 58.01.01.134, 4/11/06]

Excess Emissions-Reporting and Recordkeeping

3.13 The permittee shall submit a written report to DEQ for each excess emissions event, no later than 15 days after the beginning of such an event. Each report shall contain the information specified in IDAPA 58.01.01.135.02.

[IDAPA 58.01.01.135, 4/11/06]

3.14 The permittee shall maintain excess emissions records at the facility for the most recent five calendar-year period. The excess emissions records shall be made available to DEQ upon request and shall include the information requested by IDAPA 58.01.01.136.03(a) and (b) as summarized in the following:

- An excess emissions log book for each emissions unit or piece of equipment containing copies of all reports that have been submitted to DEQ pursuant to IDAPA 58.01.01.135 for the particular emissions unit or equipment; and
- Copies of all startup, shutdown, and scheduled maintenance procedures and upset, breakdown, or safety preventative maintenance plans that have been developed by the permittee in accordance with IDAPA 58.01.01.133 and 134, and facility records as necessary to demonstrate compliance with such procedures and plans.

[IDAPA 58.01.01.136, 4/5/00]

Fuel-Burning Equipment

3.15 The permittee shall not discharge to the atmosphere from any fuel-burning equipment PM in excess of 0.015 grains per dry standard cubic foot (gr/dscf) of effluent gas corrected to 3% oxygen by volume for gas, 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid.

[IDAPA 58.01.01.676–677, 5/1/94]

Sulfur Content

3.16 The permittee shall not sell, distribute, use, or make available for use any of the following:

- Distillate fuel oil containing more than the following percentages of sulfur:
 - ASTM Grade 1 fuel oil, 0.3% by weight
 - ASTM Grade 2 fuel oil, 0.5% by weight
- Coal containing greater than 1.0% sulfur by weight
- DEQ may approve an exemption from these fuel sulfur content requirements (IDAPA 58.01.01.725.01 725.04) if the permittee demonstrates that, through control measures or other means, SO₂ emissions are equal to or less than those resulting from the combustion of fuels complying with these limitations.

[IDAPA 58.01.01.725, 4/11/15]

3.17 The permittee shall maintain documentation of supplier verification of distillate fuel oil sulfur content on an as received basis.

[IDAPA 58.01.01.322.07, 5/1/94]

Open Burning

3.18 The permittee shall comply with the “Rules for Control of Open Burning” (IDAPA 58.01.01.600–623).

[IDAPA 58.01.01.600–623, 3/29/12]

Asbestos

3.19 NESHAP 40 CFR 61, Subpart M—National Emission Standard for Asbestos

The permittee shall comply with all applicable requirements of 40 CFR 61, Subpart M—
“National Emission Standard for Asbestos.”

[40 CFR 61, Subpart M]

Accidental Release Prevention

3.20 This facility is subject to 40 CFR Part 68 and shall certify compliance with all requirements of 40 CFR Part 68, including the registration and submission of the RMP, as part of the annual compliance certification required by 40 CFR 70.6(c)(5).

[40 CFR 68.215(a)(2); IDAPA 58.01.01.322.11, 4/6/05; 40 CFR 68.215(a)(ii)]

Recycling and Emissions Reductions

3.21 40 CFR Part 82—Protection of Stratospheric Ozone

The permittee shall comply with applicable standards for recycling and emissions reduction of refrigerants and their substitutes pursuant to 40 CFR 82, Subpart F, “Recycling and Emissions Reduction.”

[40 CFR 82, Subpart F]

NSPS/NESHAP General Provisions

3.22 NSPS 40 CFR 60, Subpart A-General Provisions

The permittee shall comply with the applicable requirements of 40 CFR 60, Subpart A-“General Provisions”-in accordance with 40 CFR 60.1. A summary of requirements for affected facilities is provided in Table 3.2.

Table 3.2 NSPS 40 CFR 60, Subpart A - Summary of General Provisions

Section	Subject	Summary of Section Requirements
60.4	Address	<ul style="list-style-type: none"> All requests, reports, applications, submittals, and other communications associated with 40 CFR 60, Subpart(s) shall be submitted to: Pocatello Regional Office 444 Hospital Way, #300 Pocatello, ID 83201
60.7(a), (b), and (f)	Notification and Recordkeeping	<ul style="list-style-type: none"> Notification shall be furnished of commencement of construction postmarked no later than 30 days of such date. Notification shall be furnished of initial startup postmarked within 15 days of such date. Notification shall be furnished of any physical or operational change that may increase emissions postmarked 60 days before the change is made. Records shall be maintained of the occurrence and duration of any startup, shutdown or malfunction; any malfunction of the air pollution control equipment; or any periods during which a CMS or monitoring device is inoperative. Records shall be maintained, in a permanent form suitable for inspection, of all measurements, performance testing measurements, calibration checks, adjustments and maintenance performed, and other required information. Records shall be maintained for a period of two years following the date of such measurements, maintenance, reports, and records.
60.8	Performance Tests	<ul style="list-style-type: none"> At least 30 days prior notice of any performance test shall be provided to afford the opportunity to have an observer to be present. Within 60 days of achieving the maximum production rate, but not later 180 days after initial startup, performance test(s) shall be conducted and a written report of the results of such test(s) furnished. Performance testing facilities shall be provided as follows: <ul style="list-style-type: none"> Sampling ports adequate for test methods applicable to such facility. Safe sampling platform(s). Safe access to sampling platform(s). Utilities for sampling and testing equipment. Performance tests shall be conducted and data reduced in accordance with 40 CFR 60.8(b), (c), and (f)
60.11(a), (d), (f), and (g)	Compliance with Standards and Maintenance Requirements	<ul style="list-style-type: none"> When performance tests are required, compliance with standards is determined by methods and procedures established by 40 CFR 60.8. At all times, including periods of startup, shutdown, and malfunction, the owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.
60.11(b), (c), and (e)	Compliance with Standards and Maintenance Requirements (Opacity)	<ul style="list-style-type: none"> Compliance with opacity standards shall be determined by Method 9 in Appendix A of 40 CFR 60. The permittee may elect to use COM measurements in lieu of Method 9, provided notification is made at least 30 days before the performance test. The opacity standards shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided. Opacity observations shall be conducted concurrently with the initial performance test required in 40 CFR 60.8 in accordance with the requirements and exceptions in 40 CFR 60.11(e).

Table 3.2 NSPS 40 CFR 60, Subpart A – Summary of General Provisions (continued)

Section	Subject	Summary of Section Requirements
60.12	Circumvention	<ul style="list-style-type: none"> No permittee shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.
60.13	Monitoring Requirements (CMS)	<ul style="list-style-type: none"> All CMS and monitoring devices shall be installed and operational prior to conducting performance tests required by 40 CFR 60.8. A performance evaluation of the COMS or CEMS shall be conducted before or during any performance test and a written report of the results of the performance evaluation furnished. Reporting requirements include submitting performance evaluations reports within 60 days of the evaluations required by this section, and submitting results of the performance evaluations for the COM within 10 days before a performance test, if using a COM to determine compliance with opacity during a performance test instead of Method 9. The zero and span calibration drifts must be checked at least once daily and adjusted in accordance with the requirements in 40 CFR 60.13(d). The zero and upscale (span) calibration drifts of a COMS must be automatically, intrinsic to the opacity monitor, checked at least once daily. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all CMS shall be in continuous operation and shall meet minimum frequency of operation requirements as specified in 40 CFR 60.13(e). All CMS or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. CMS shall be located and installed in accordance with the requirements in 40 CFR 60.13(f) and (g). Data shall be reduced and computed in accordance with the procedures in 40 CFR 60.13(h), (i), and (j).
60.14	Modification	<ul style="list-style-type: none"> A physical or operational change which results in an increase in the emission rate to the atmosphere or any pollutant to which a standard applies shall be considered a modification, and upon modification an existing facility shall become an affected facility in accordance with the requirements and exemptions in 40 CFR 60.14. Within 180 days of the completion of any physical or operational change, compliance with all applicable standards must be achieved.
60.15	Reconstruction	<ul style="list-style-type: none"> An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate in accordance with the requirements of 40 CFR 60.15.

[40 CFR 60, Subpart A]

3.23 NESHAP 40 CFR 63, Subpart A—General Provision

The permittee shall comply with the requirements of 40 CFR 63, Subpart A—“General Provisions.” A summary of applicable requirements for affected sources is provided in Table 3.3.

Table 3.3 NESHAP 40 CFR 63, Subpart A – Summary of General Provisions for Affected Sources

Section	Subject	Summary of Section Requirements		
63.13	Address	<ul style="list-style-type: none"> • All requests, reports, applications, submittals, and other communications associated with 40 CFR 63, Subpart(s) shall be submitted to: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Director, Office of Air Quality US EPA 1200 Sixth Ave. Seattle, WA 98101</td> <td style="width: 50%; border: none;">Pocatello Regional Office 444 Hospital Way, #300 Pocatello, ID 83201</td> </tr> </table> 	Director, Office of Air Quality US EPA 1200 Sixth Ave. Seattle, WA 98101	Pocatello Regional Office 444 Hospital Way, #300 Pocatello, ID 83201
Director, Office of Air Quality US EPA 1200 Sixth Ave. Seattle, WA 98101	Pocatello Regional Office 444 Hospital Way, #300 Pocatello, ID 83201			
63.4(a)	Prohibited Activities	<ul style="list-style-type: none"> • No permittee must operate any affected source in violation of the requirements of 40 CFR 63 in accordance with 40 CFR 63.4(a). No permittee subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part. 		
63.4(b)	Circumvention/ Fragmentation	<ul style="list-style-type: none"> • No permittee shall build, erect, install or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. • Fragmentation which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability in accordance with 40 CFR 63.4(c). 		
63.6(b) and (c)	Compliance Dates	<ul style="list-style-type: none"> • The permittee of any new or reconstructed source must comply with the relevant standard as specified in 40 CFR 63.6(b). <ul style="list-style-type: none"> ◦ The permittee of a source that has an initial startup before the effective date of a relevant standard must comply not later than the standard's effective date in accordance with 40 CFR 63.6(b)(1). ◦ The permittee of a source that has an initial startup after the effective date of a relevant standard must comply upon startup of the source in accordance with 40 CFR 63.6(b)(2). • The permittee of any existing sources must comply with the relevant standard by the compliance date established in the applicable subpart or as specified in 40 CFR 63.6(c). <ul style="list-style-type: none"> ◦ The permittee of an area source that increases its emissions of hazardous air pollutants such that the source becomes a major source shall be subject to relevant standards for existing sources in accordance with 40 CFR 63.6(c)(5). 		
63.6(e) and (f)	Compliance with Standards and Maintenance Requirements (Non-Opacity)	<ul style="list-style-type: none"> • At all times, including periods of startup, shutdown, and malfunction, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions in accordance with 40 CFR 63.6(e). • The permittee of an affected source must develop a written startup, shutdown, and malfunction plan and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard in accordance with 40 CFR 63.6(e). The permittee must maintain the current plan at the affected source and must make the plan available upon request. If the plan fails to address or inadequately addresses a malfunction, the permittee must revise the plan within 45 days after the event. • The permittee must record and report actions taken during a startup, shutdown, or malfunction in accordance with the requirements in 40 CFR 63.6(e). The permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the plan in the semiannual startup, shutdown, and malfunction report. • Non-opacity emission standards shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified, in accordance with 40 CFR 63.6(f). 		

Table 3.3 NESHAP 40 CFR 63, Subpart A – Summary of General Provisions for Affected Sources (continued)

Section	Subject	Summary of Section Requirements
63.7	Performance Testing Requirements	<ul style="list-style-type: none"> • If required to do performance testing, the permittee must perform such tests within 180 days of the compliance date in accordance with 40 CFR 63.7(a). • The permittee must notify in writing of the intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow review of the site-specific test plan and to have an observer present during the test in accordance with 40 CFR 63.7(b). • Before conducting a required performance test, the permittee shall develop and, if requested, shall submit a site-specific test plan for approval in accordance with 40 CFR 63.7(c). The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. • If required to do performance testing, the permittee shall provide performance testing facilities in accordance with 40 CFR 63.7(d): <ul style="list-style-type: none"> ○ Sampling ports adequate for test methods applicable to such source. ○ Safe sampling platform(s); ○ Safe access to sampling platform(s); ○ Utilities for sampling and testing equipment; and ○ Any other facilities deemed necessary for safe and adequate testing of a source. • Performance tests shall be conducted and data reduced in accordance with 40 CFR 63.7(e) and (f). • The permittee shall report the results of the performance test before the close of business on the 60th day following the completion of the test, unless specified or approved otherwise in accordance with 40 CFR 63.7(g).
63.9	Notification Requirements	<ul style="list-style-type: none"> • The permittee of an affected source that has an initial startup before the effective date of a relevant standard shall notify in writing that the source is subject to the relevant standard, in accordance with 40 CFR 63.9(b)(2). The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information: <ul style="list-style-type: none"> ○ The name and address of the permittee; ○ The address (i.e., physical location) of the affected source; ○ An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date; ○ A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and ○ A statement of whether the affected source is a major source or an area source. • The permittee of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required must provide the following information in writing in accordance with 40 CFR 63.9(b)(4): <ul style="list-style-type: none"> ○ A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source; ○ A notification of the actual date of startup of the source delivered or postmarked within 15 calendar days after that date. • The permittee of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required must provide the following information in writing in accordance with 40 CFR 63.9(b)(5): <ul style="list-style-type: none"> ○ A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and ○ A notification of the actual date of startup of the source delivered or postmarked within 15 calendar days after that date. ○ Unless the permittee has requested and received prior permission, the notification must include the information required in the application for approval of construction or reconstruction as specified in 40 CFR 63.5(d)(1).

Table 3.3 NESHAP 40 CFR 63, Subpart A – Summary of General Provisions for Affected Sources (continued)

Section	Subject	Summary of Section Requirements
63.9	Notification Requirements (continued)	<ul style="list-style-type: none"> • The permittee shall notify in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the opportunity to review and approve the site-specific test plan required by 40 CFR 63.7(c), and to have an observer present during the test. • The permittee of an affected source shall notify in writing of the anticipated date for conducting the opacity or visible emission observations in accordance with 40 CFR 63.9(f), if such observations are required. • Each time a notification of compliance status is required under this part, the permittee of such source shall submit a notification of compliance status in accordance with 40 CFR 63.9(h)(2)(i). The notification shall list: <ul style="list-style-type: none"> ○ The methods that were used to determine compliance; ○ The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted; ○ The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods; ○ The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard; ○ If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification); ○ A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and ○ A statement by the permittee of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements. • The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard unless otherwise specified in accordance with 40 CFR 63.9(h)(2)(ii). If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with a standard, the notification shall be sent before close of business on the 30th day following the completion of the observations. • Each time a notification of compliance status is required under this part, the permittee of such source shall submit the notification of compliance status following completion of the relevant compliance demonstration activity specified. • If a permittee submits estimates or preliminary information in an application in place of the actual emissions data or control efficiencies, the permittee shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section in accordance with 40 CFR 63.9(h)(5). • Any change in the information already provided under this section shall be provided in writing within 15 calendar days after the change in accordance with 40 CFR 63.9(j).

Table 3.3 NESHAP 40 CFR 63, Subpart A – Summary of General Provisions for Affected Sources (continued)

Section	Subject	Summary of Section Requirements
63.10	Recordkeeping and Reporting Requirements	<ul style="list-style-type: none"> • The permittee shall maintain files of all required information recorded in a form suitable and readily available for expeditious inspection and review in accordance with 40 CFR 63.10(b)(1). The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. • The permittee shall maintain relevant records of the following in accordance with 40 CFR 63.10(b)(2); <ul style="list-style-type: none"> ○ The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards; ○ The occurrence and duration of each malfunction of operation or the required air pollution control and monitoring equipment; ○ All required maintenance performed on the air pollution control and monitoring equipment; ○ Actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan; or ○ Actions taken during periods of malfunction when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan; ○ All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see 40 CFR 63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events); ○ Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods); ○ All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report); ○ All results of performance tests, CMS performance evaluations, and opacity and visible emission observations; ○ All measurements as may be necessary to determine the conditions of performance tests and performance evaluations; ○ All CMS calibration checks; ○ All adjustments and maintenance performed on CMS; ○ All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under 40 CFR 63.8(f)(6); and ○ All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9. • If an permittee determines that his or her stationary source that emits one or more HAP, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to a relevant standard because of limitations on the source's potential to emit or an exclusion, the permittee must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first in accordance with 40 CFR 63.10(b).

[40 CFR 63, Subpart A]

Monitoring and Recordkeeping

3.24 The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this operating 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 58.01.01.322.06, 07, 5/1/94]

Performance Testing

3.25 If performance testing is required, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test or shorter time period as provided in a permit, order, consent decree, or by DEQ approval. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests such testing not be performed on weekends or state holidays.

3.26 All 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, prior to conducting any performance test, the permittee is encouraged to submit in writing to DEQ, at least 30 days in advance, the following for approval:

- The type of method to be used.
- Any extenuating or unusual circumstances regarding the proposed test.
- The proposed schedule for conducting and reporting the test.

[IDAPA 58.01.01.157, 4/11/15; IDAPA 58.01.01.322.06, 08.a, 09, 4/5/00]

3.27 Within 60 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 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.

3.28 The proposed test date(s), test date rescheduling notice(s), compliance test report, and all other correspondence shall be sent to the DEQ address specified in the "Reports and Certifications" facility wide condition (Permit Condition 3.29).

[IDAPA 58.01.01.157, 4/11/15; IDAPA 58.01.01.322.06, 08.a, 09, 4/5/00]

Reports and Certifications

3.29 All periodic reports and certifications required by this permit shall be submitted to DEQ within 30 days of the end of each specified reporting period. Excess emissions reports and notifications shall be submitted in accordance with IDAPA 58.01.01.130–136. Reports, certifications, and notifications shall be submitted to:

Air Quality Permit Compliance
Department of Environmental Quality
Pocatello Regional Office
444 Hospital Way, Suite 300
Pocatello, ID 83201
Phone: (208) 236-6160
Fax: (208) 236-6168

The periodic compliance certification required in the general provisions (General Provision 18.22) shall also be submitted within 30 days of the end of the specified reporting period to:

Part 70 Operating Permit Program
U.S. EPA Region 10, Mail Stop: OAW-150
1200 Sixth Ave., Suite 155
Seattle, WA 98101

[IDAPA 58.01.01.322.08, 11, 4/5/00]

Incorporation of Federal Requirements by Reference

3.30 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. Documents include, but are not limited to:

- Standards of Performance for New Stationary Sources (NSPS), 40 CFR Part 60
- National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61
- National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP), 40 CFR Part 63

For permit conditions referencing or cited in accordance with any document incorporated by reference (including permit conditions identified as NSPS or NESHAP), 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 to that regulation.

[IDAPA 58.01.01.107, 3/29/17]

Special Studies

3.31 The permittee shall comply with the following DEQ approved documents as required in the consent order signed September 1, 2004. The permittee shall keep the documents on site.

- Fluoride Emissions Modeling
- Fluoride in Forage Sampling Plan
- Fluoride in Forage Education Plan
- Fluoride in Forage Notification Plan

[Consent Order 9/1/04 (state-only)]

Reporting Requirements for Ambient Fluoride Monitoring

3.32 The ambient fluoride in vegetation used for feed and forage monitoring results shall be submitted in an annual report to DEQ no later than December 31 of the calendar year in which the samples were collected. The results shall be reported in parts per million. The permittee shall maintain all fluoride in vegetation monitoring data collected in the Don Siding area for not less than five years.

[IDAPA 58.01.01.322.08, 5/1/94]

4 Emission Unit Group 1: Emergency Engines

Summary Description

Simplot owns and operates five emergency stationary reciprocating internal combustion engines (RICE). Two engines are compression ignition (CI) with a site rating of greater than 500 brake hp, and the remaining three are spark ignition (SI) with a site rating of less than 500 brake hp.

Table 4.1 describes the devices used to control emissions from the emergency engines.

Table 4.1 Emergency Engines Description

Source ID	Emissions Units / Processes	Control Devices	Applicable Subpart
1003	Caterpillar Boiler, CI RICE, diesel, 755 hp	None	----
1216.1	Cummins Ore Receiving, CI RICE, diesel, 535 hp	None	----
1220	CAT DG50-2 TG Turning Gear, SI RICE, natural gas, 50 kW	None	JJJJ
1225	Sub 3400, SI RICE, natural gas, 90 hp	None	ZZZZ
250	PPA Generator (phone system), SI RICE, natural gas, 58 hp	None	ZZZZ

40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

4.1 Affected Source – 40 CFR 63.6590 What parts of my plant does this subpart cover?

- In accordance with 40 CFR 63.6590(a), four emergency RICEs are existing stationary RICEs located at a major source of HAP emissions. Two SI RICEs among these five emergency RICEs are subject to the requirements in this subpart.
- In accordance with 40 CFR 63.6590(b)(iii), existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions do not have to meet the requirements of this subpart and 40 CFR 63 subpart A, including initial notification requirements.

[40 CFR 63.6590]

- The permittee shall operate the two CI RICEs (i.e., Caterpillar Boiler Generator and Cummins Ore Receiving Generator) for emergency use only consistent with the description provided in 40 CFR 63.6640(f)(2) so that these two CI RICEs do not have to meet any requirements in this subpart and 40 CFR 63 subpart A.

[IDAPA 58.01.01.322.01, 3/19/99]

4.2 Compliance Date – 40 CFR 63.6595 When do I have to comply with this subpart?

In accordance with 40 CFR 63.6595(a)(1), for an existing stationary spark ignition RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, the permittee shall comply with the applicable operating limitations no later than October 19, 2013.

[40 CFR 63.6595(a)(1)]

Operating Requirements

4.3 Operating Limitations - 40 CFR 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

In accordance with 40 CFR 63.6602, the permittee shall comply with the requirements in Table 2c to this subpart. They are listed as follows:

- Change the oil and filter every 500 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(j) or Permit Condition 4.5 in order to extend the specified oil change requirement in Table 2c of this subpart;
- Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. The permittee can petition the Administrator (i.e., EPA) pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[40 CFR 63.6602]

4.4 General Requirements - 40 CFR 63.6605 What are my general requirements for complying with this subpart?

In accordance with 40 CFR 63.6605 (a), the permittee shall be in compliance with the operating limitations in this subpart that apply to the permittee at all times.

In accordance with 40 CFR 63.6605 (b), the permittee at all times shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.6605]

4.5 40 CFR 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

- In accordance with 40 CFR 63.6625 (e) or 63.6640 (a), the permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

- In accordance with 40 CFR 63.6625 (f), the permittee shall install a non-resettable hour meter if one is not already installed.
- In accordance with 40 CFR 63.6625 (h), the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
- In accordance with 40 CFR 63.6625 (j), the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[40 CFR 63.6625]

Reporting Requirements

4.6 40 CFR 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

- In accordance with 40 CFR 63.6640 (a), the permittee shall demonstrate continuous compliance with each operating limitation in Table 2c to this subpart that apply to you according to methods specified in Table 6 to this subpart. The methods for existing emergency and black start stationary RICE ≤ 500 HP located at a major source of HAP are listed as follows:
 - (i) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
 - (ii) Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- In accordance with 40 CFR 63.6640(b), the permittee shall report each instance in which you did not meet each operating limitation in Table 2c as listed under Permit Condition 4.3.
- In accordance with 40 CFR 63.6640(e), the permittee shall report each instance in which the permittee did not meet the requirements in Table 8 to this subpart that apply to the permittee. Table 8 is the Applicability of General Provisions to Subpart ZZZZ.

[40 CFR 63.6640]

Compliance Requirements

4.7 40 CFR 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

In accordance with 40 CFR 63.6640(f)(1), the permittee shall operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section listed as follows. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

- (i) 40 CFR 63 Subpart ZZZZ does not impose time limits on the use of emergency stationary RICE in emergency situations.
- (ii) The permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
- (iii) The permittee may operate the emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that the permittee may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph 40 CFR 63.6640(f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

[40 CFR 63.6640]

Recordkeeping Requirements

4.8 40 CFR 63.6655 What records must I keep?

- In accordance with 40 CFR 63.6655(a), the permittee shall keep the following records:
 - Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment according to 40 CFR 63.6655(a)(2).
 - Records of all required maintenance performed on the monitoring equipment according to 40 CFR 63.6655(a)(4).
 - Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation according to 40 CFR 63.6655(a)(5).
- In accordance with 40 CFR 63.6655 (d), the permittee shall keep the records required in Table 6 of this subpart (i.e., Permit Condition 4.7) to show continuous compliance with each operating limitation that applies to you.
- In accordance with 40 CFR 63.6655 (e), the permittee shall keep the records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the permittee's own maintenance plan.
- In accordance with 40 CFR 63.6655 (f), the permittee shall keep the records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the permittee shall keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

[40 CFR 63.6655]

4.9 40 CFR 63.6660 In what form and how long must I keep my records?

In accordance with 40 CFR 63.6660,

- The records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).
- As specified in 40 CFR 63.10(b)(1), the permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- The permittee shall keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).

[40 CFR 63.6660]

Other Requirements

4.10 40 CFR 63.6665 What parts of the General Provisions apply to me?

In accordance with 40 CFR 63.6665, the permittee is subject to Table 8 for the SI RICEs except for 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).

[40 CFR 63.6665]

40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

4.11 Affected Source – 40 CFR 60.4230 Am I subject to this subpart?

In accordance with 40 CFR 60.4230(a)(4)(iv), owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 kW (25 HP). One SI RICE among these five emergency RICEs is subject to the requirements in this subpart.

[40 CFR 60.4230]

Operating Requirements

4.12 Emission Standards - 40 CFR 60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

In accordance with 40 CFR 60.4233(d), owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE.

Table 4.2 Table 1 to Subpart JJJJ – NO_x, CO and VOC Emission Standards for Stationary Emergency Engines > 25HP

Engine type and fuel	Maximum engine power	Manufacture Date	Emission Standards		
			g/HP-hr		
			NO _x	CO	VOC
Emergency	25<HP<130	1/1/2009	10 ^(a)	387	N/A

a) The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x + HC.

[40 CFR 60.4233]

4.13 Emission Standards - 40 CFR 60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

In accordance with 40 CFR 60.4234, the permittee must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

[40 CFR 60.4234]

4.14 40 CFR 60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

In accordance with 40 CFR 60.4237, the permittee must install a non-resettable hour meter upon startup of the emergency engine if the engine does not meet the standards applicable to non-emergency engines.

[40 CFR 60.4237]

Compliance Requirements

4.15 40 CFR 60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

In accordance with 40 CFR 60.4243(d), the permittee must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

- There is no time limit on the use of emergency stationary ICE in emergency situations.
- The permittee may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).
 - Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
 - Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
 - Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
 - The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

- The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- The power is provided only to the facility itself or to support the local transmission and distribution system.
- The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

In accordance with 40 CFR 60.4243(e), the permittee may operate their engine using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

In accordance with 40 CFR 60.4243(f), if the permittee purchases a non-certified engine or does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, the permittee is required to perform initial performance testing as indicated in this section, but the permittee is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).

[40 CFR 60.4243(d-f)]

Recordkeeping Requirements

4.16 40 CFR 60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

In accordance with 40 CFR 60.4245, the permittee must meet the following notification, reporting and recordkeeping requirements.

- Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.
 - All notifications submitted to comply with this subpart and all documentation supporting any notification.
 - Maintenance conducted on the engine.
 - If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
 - If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

- For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

[40 CFR 60.4245]

5 Emissions Unit Group 2: Ammonium Sulfate Plant

Summary Description

The following is a narrative description of the ammonium sulfate plant regulated in this Tier I operating permit. This description is for informational purposes only.

This process involves making crystalline ammonium sulfate and transferring it to storage and to loadout.

Recycled Ammsox® scrubber liquor from sulfuric acid plant No. 300 is transferred to the Ammonium Sulfate Plant where it is combined with sulfuric acid and ammonia in a reactor. Crystallized ammonium sulfate is formed in the reactor, removed from the mother liquor by a centrifuge, transferred to a dryer, and then transferred to a cooler.

The Ammonium sulfate product is transferred from the cooler to the product belt conveyors, which dump to the product stockpile. Product is then transferred by loader from the product stockpile to the reclaim hopper, which feeds a bucket elevator. The bucket elevator chute feeds product into trucks.

Table 5.1 describes the devices used to control emissions from the ammonium sulfate plant.

Table 5.1 Ammonium Sulfate Plant Description

Source ID	Emissions Units / Processes	Control Devices
500	Dryer	Dryer Venturi scrubber
501	Cooler	Cooler Venturi scrubber
504.1	Cooler elevator	
503	Reactor (crystallizer)	Entrainment separator and non-contact condenser
550, 551, 552	Product stockpile and associated materials transfer to and from product stockpile	Building enclosure
553, 554	Bucket elevator material transfer	Wind protection

Table 5.2 contains only a summary of the requirements that apply to the ammonium sulfate plant. Specific permit requirements are listed below.

Table 5.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
5.1	PM	2.44 lb/hr, 10.68 T/yr	PTC No. P-2016.0055	5.8 - 5.10, 5.13 - 5.15
5.2	PM	Process weight rate	IDAPA 58.01.01.701	5.8 - 5.10, 5.13 - 5.15
5.3	PM ₁₀	2.0 lb/hr, 8.76 T/yr	PTC No. P-2016.0055	5.8 - 5.10, 5.13 - 5.15
5.4	SO ₂	0.0007 lb/hr, 0.003 T/yr	PTC No. P-2016.0055	5.11
5.5	CO	0.07 lb/hr, 0.3 T/yr	PTC No. P-2016.0055	
5.6	NO _x	0.25 lb/hr, 1.1 T/yr	PTC No. P-2016.0055	
5.16	PM	0.3 lb/T ammonium sulfate produced	40 CFR 60, Subpart PP (only applies to the ammonium sulfate dryer)	5.17, 5.18
		15% opacity		

Emission Limits

5.1 PM Emission Limit

The total PM emissions from the combined dryer and cooler stacks shall not exceed 2.44 lb/hr and 10.68 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

5.2 PM Emission Limit

No person shall emit PM to the atmosphere from any process or process equipment commencing operating on or after October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in lb/hr, and PW is the process weight in lb/hr:

- If PW is less than 9,250 lb/hr,

$$E = 0.045(PW)^{0.60}$$

- If PW is equal to or greater than 9,250 lb/hr,

$$E = 1.10(PW)^{0.25}$$

[IDAPA 58.01.01.701, 4/5/00]

5.3 PM₁₀ Emission Limit

The total PM₁₀ emissions from the combined dryer and cooler stacks shall not exceed 2.0 lb/hr and 8.76 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

5.4 SO₂ Emission Limit

The total SO₂ emissions from the combined dryer and cooler stacks shall not exceed 0.0007 lb/hr and 0.003 T/yr (tons per any consecutive 12 month period) .

[PTC No. P-2016.0055, 8/19/19]

5.5 CO Emission Limit

The total CO emissions from the combined dryer and cooler stacks shall not exceed 0.07 lb/hr and 0.3 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

5.6 NO_x Emission Limit

The total NO_x emissions from the combined dryer and cooler stacks shall not exceed 0.25 lb/hr and 1.1 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

5.7 Opacity Limit

Emissions from the ammonium sulfate scrubber stack, or any other stack, vent, or functionally equivalent opening associated with the ammonium sulfate plant, shall not exceed 15% opacity.

[PTC No. P-2016.0055, 8/19/19]

Operating Requirements

5.8 Scrubber Maintenance

Maintenance to the corresponding scrubber and process shall be performed if visible emissions from one of the stacks exceed 15% opacity.

[PTC No. P-2016.0055, 8/19/19]

5.9 O&M Manual

The permittee shall have developed an Operations and Maintenance (O&M) manual for each wet scrubber system which describes the procedures that will be followed to comply with Permit Conditions 5.1 and 5.3. The O&M manual shall include, but not be limited to, operating ranges for fluid flow rate to each scrubber, pressure drop across each scrubber, and maintenance procedures and schedule. The O&M manual shall be developed based on manufacturer specifications and the compliance test data obtained in Permit Condition 5.10.

The O&M manual shall remain on site at all times and shall be made available to DEQ representatives upon request.

The permittee shall operate each scrubber system in accordance with the O&M manual.

[PTC No. P-2016.0055, 8/19/19]

Compliance Tests

5.10 PM and PM₁₀ Compliance Test

The permittee shall conduct a compliance test to demonstrate compliance with hourly PM and PM₁₀ emissions limits in Permit Conditions 5.1 and 5.3.

- Emissions shall be measured using the following EPA reference test methods, or approved alternatives: PM - Method 5; PM₁₀ - Methods 5 and 202.
- Testing shall be performed according to the following schedule. If the pollutant emission rate measured in the most recent test is less than or equal to 75% of the emission limit, the next test shall be conducted within five years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission limit, the next test shall be conducted within two years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 90% of the emission limit, the next test shall be conducted within 13-months of the test date.
- The permittee shall record the ammonium sulfate plant production rate, the pressure drop across each scrubber, and the flow rate of the scrubber liquid to each scrubber during source tests.

[PTC No. P-2016.0055, 8/19/19]

Monitoring and Recordkeeping Requirements

5.11 Natural Gas Dryer Usage

To demonstrate compliance with emissions limits in Permit Conditions 5.4 through 5.6, the permittee shall continuously monitor the amount of natural gas fired in the dryer. On a monthly basis, the permittee shall record the natural gas consumption for the previous month and for the previous rolling 12-month period.

- The permittee shall monitor and record the hours of operation of the dryer on a monthly basis.

[PTC No. P-2016.0055, 8/19/19]

5.12 Fugitive Emissions

Fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651.

[PTC No. P-2016.0055, 8/19/19]

5.13 Scrubber Flow Rate

The permittee shall monitor the fluid flow rate to each scrubber. The flow rate shall be recorded once per 24-hour period in gallons per minute (gpm).

[PTC No. P-2016.0055, 8/19/19]

5.14 Scrubber Pressure Drop

The permittee shall monitor the pressure drop across each scrubber. The pressure drop shall be recorded once per 24-hour period as inches of water column.

[PTC No. P-2016.0055, 8/19/19]

5.15 Control Equipment Maintenance Log

The permittee shall maintain an emissions control equipment maintenance log. This log shall be made available to DEQ representatives upon request.

[PTC No. P-2016.0055, 8/19/19]

40 CFR 60 Subpart PP – Standards of Performance for Ammonium Sulfate Manufacture

5.16 40 CFR 60 Subpart PP - § 60.422 Standards for particulate matter

The permittee shall not discharge into the atmosphere, from any ammonium sulfate dryer:

- Particulate matter at an emission rate exceeding 0.30 pound of particulate per ton of ammonium sulfate produced and
- Exhaust gases with greater than 15% opacity.

[40 CFR 60.422]

5.17 40 CFR 60 Subpart PP - § 60.423 Monitoring of operations

- The permittee shall install, calibrate, maintain, and operate flow monitoring devices which can be used to determine the mass flow of ammonium sulfate feed material streams to the process. The flow monitoring device shall have an accuracy of ± 5 percent over its range. However, if the plant uses weigh scales of the same accuracy to directly measure production rate of ammonium sulfate, the use of flow monitoring devices is not required.

In accordance with 40 CFR 60.421, ammonium sulfate feed material streams means the sulfuric acid feed stream to the reactor/crystallizer for synthetic ammonium sulfate manufacturing plants.

- The permittee shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the emission control system of any ammonium sulfate dryer. The monitoring device shall have an accuracy of ± 5 percent over its operating range.

[40 CFR 60.423 (a-b)]

5.18 40 CFR 60 Subpart PP - § 60.424 Test methods and procedures

In conducting the performance tests required in 40 CFR 60.8, the permittee shall use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b).

The permittee shall determine compliance with the particulate matter standards in 40 CFR 60.422 as follows:

- The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = (c_s Q_{sd}) / (PK)$$

where:

E=emission rate of particulate matter, kg/Mg (lb/ton) of ammonium sulfate produced.

c_s = concentration of particulate matter, g/dscm (g/dscf).

Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P=production rate of ammonium sulfate, Mg/hr (ton/hr).

K=conversion factor, 1000 g/kg (453.6 g/lb).

- Method 5 shall be used to determine the particulate matter concentration (c_s) and volumetric flow rate (Q_{sd}) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 1.50 dscm (53 dscf).
- Direct measurement using product weigh scales, or the result of computations using a material balance, shall be used to determine the rate (P) of the ammonium sulfate production. If production rate is determined by material balance, the following equations shall be used in accordance with 40 CFR 60.424(b)((3)(i):

$$P = ABCK^{1/4}$$

where:

A=sulfuric acid flow rate to the reactor/crystallizer averaged over the time-period taken to conduct the run, liter/min.

B=acid density (a function of acid strength and temperature), g/cc.

C=acid strength, decimal fraction.

$K^{1/4}$ =conversion factor, 0.0808 (Mg-min-cc)/(g-hr-liter) [0.0891 (ton-min-cc)/(g-hr-liter)].

- Method 9 and the procedures in 40 CFR 60.11 shall be used to determine the opacity. **[40 CFR 60.424 (a-b)]**

6 Emission Unit Group 3: HPB&W Boiler

Summary Description

The following is a narrative description of the Babcock & Wilcox boiler (HPB&W) regulated in this Tier I operating permit. This description is for informational purposes only.

The HPB&W boiler, Model No. FM 106-97, is a natural gas-fired boiler equipped with a LoNO_x[®] burner. It has a steam capacity of 120,000 lb of steam per hour and heat input rating of 175 MMBtu/hr. The boiler is used to maintain the steam needs of the facility. The HPB&W boiler was installed in 2000 to replace the Foster-Wheeler and Combustion Engineering boilers.

Table 6.1 describes the devices used to control emissions from the HPB&W boiler.

Table 6.1 HPB&W Boiler Description

Source ID	Emissions Units / Processes	Control Devices
1000.0	HPB&W boiler	None

Table 6.2 contains only a summary of the requirements that apply to the HPB&W boiler. Specific permit requirements are listed below.

Table 6.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
6.1	PM ₁₀	1.33 lb/hr, 5.83 T/yr	PTC No. P-2016.0055	6.3 - 6.7
6.1	SO ₂	0.11 lb/hr, 0.46 T/yr	PTC No. P-2016.0055	
6.1	NO _x	7.00 lb/hr, 30.7 T/yr	PTC No. P-2016.0055	
6.2	NO _x	0.04 lb/MMBtu	PTC No. P-2016.0055	6.5, 6.8, 6.10 - 6.12
6.8		0.2 lb/MMBtu	40 CFR 60.44b(a)(1)	6.8 - 6.12
6.1	VOC	0.96 lb/hr, 4.22 T/yr	PTC No. P-2016.0055	6.3 - 6.7
6.1	CO	14.0 lb/hr, 61.3 T/yr	PTC No. P-2016.0055	
6.3	Fuel usage	0.175 MMcf/hr, 1,533 MMcf/yr	PTC No. P-2016.0055	6.6

Emission Limits

6.1 Emissions Limits

The emissions from the HPB&W boiler stack shall not exceed any corresponding emissions rate limits listed in Table 6.3.

Table 6.3 HPB&W Boiler Emission Limits^(a)

Source Description	PM ₁₀ ^(b)		SO ₂		NO _x		CO		VOC	
	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)
HPB&W Boiler	1.33	5.83	0.11	0.46	7.00	30.7	14.0	61.3	0.96	4.22

- a) In absence of any other credible evidence, compliance is ensured by complying with permit operating, monitoring, and record keeping requirements.
- b) 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.
- c) 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.
- d) Tons per any consecutive 12-calendar month period.

[PTC No. P-2016.0055, 8/19/19]

6.2 NO_x Limit

The NO_x emissions from the HPB&W Boiler shall not exceed 0.04 lb/MMBtu.

[PTC No. P-2016.0055, 8/19/19]

Operating Requirements

6.3 Throughput Limits

The maximum hourly natural gas throughput of the HPB&W boiler shall not exceed 0.175 MMcf/hr. The maximum annual natural gas throughput of the HPB&W boiler shall not exceed 1,533 MMcf/yr.

[PTC No. P-2016.0055, 8/19/19]

6.4 Fuel Limit

The HPB&W boiler shall only use natural gas as fuel.

[PTC No. P-2016.0055, 8/19/19]

Monitoring and Recordkeeping Requirements

6.5 O&M Manual

An O&M manual for the HPB&W boiler and LoNO_x - EGR systems shall remain on site at all times.

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.

[PTC No. P-2016.0055, 8/19/19]

6.6 Throughput Monitoring Requirement

Each operating day, the permittee shall monitor and record the natural gas usage in the HPB&W boiler for that day, in MMcf/day. Once per month, the permittee shall record the total natural gas usage for the previous rolling 12-month period, in MMcf/yr.

[PTC No. P-2016.0055, 8/19/19]

6.7 Operational Hours

For each HPB&W boiler operating day, the permittee shall record and maintain the records of the number of hours that the HPB&W boiler operates.

[PTC No. P-2016.0055, 8/19/19]

40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

6.8 40 CFR 60 Subpart Db - § 60.44b Standard for nitrogen oxides (NO_x)

In accordance with 40 CFR 60.44b(1)(1), the NO_x emissions shall not exceed 0.2 lb/MMBtu heat input.

Compliance with the NO_x emissions limits in Permit Conditions 6.1 and 6.8 are determined on a 30-day rolling average basis.

For purposes of compliance with this permit condition, the NO_x standards in Permit Conditions 6.1 and 6.8 apply at all times including periods of startup, shutdown, or malfunction.

[40 CFR 60.44b(1)(1), 40 CFR 60.44b(i), 40 CFR 60.44b(h)]

6.9 40 CFR 60 Subpart Db - § 60.46b Compliance and performance test methods and procedures for nitrogen oxides

In accordance with 40 CFR 60.46b(c) & (e), to determine compliance with the emission limits for NO_x required under 40 CFR 60.44b, the owner or operator of an affected facility shall conduct the performance test as required under 40 CFR 60.8 using the continuous system for monitoring NO_x under 40 CFR 60.48(b).

In accordance with 40 CFR 60.46b(e)(4), following the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 250 MMBtu/hr or less and that combusts natural gas shall upon request determine compliance with the NO_x standards in §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO_x emissions data collected pursuant to 40 CFR 60.48b(g)(1) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO_x emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_x emission data for the preceding 30 steam generating unit operating days.

[40 CFR 60.46b(c), 40CFR60.46b(e)(1), 40 CFR 60.46b(e)(4)]

6.10 40 CFR 60 Subpart Db - § 60.48b(g) Emission monitoring for nitrogen oxides

In accordance with 40 CFR 60.48b(g)(1), the owner or operator of an affected facility that has a heat input capacity of 250 MMBtu/hr or less, and that has an annual capacity factor for natural gas greater than 10 percent (0.10) shall comply with the provisions of paragraphs 40 CFR 60.48b(b), (c), (d), (e)(2), and (f).

[40 CFR 60.46b(g)(1)]

6.11 40 CFR 60 Subpart Db - § 60.48b(b-f) CEMS

- The permittee shall install, calibrate, maintain, and operate a CEMS for measuring NO_x and O₂ (or CO₂) emissions discharged to the atmosphere, and shall record the output of the system.

- The NO_x CEMS shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks and zero and span adjustments.
- The one-hour average NO_x emission rates measured by the NO_x CEMS shall be expressed in lb/MMBtu heat input and shall be used to calculate the average 30-day emissions rates in Permit Conditions 5.4 and 5.13. The one-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2).

40 CFR 60.13(h)(2):

40 CFR 60.13(h)(2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

(i) Except as provided under 40 CFR 60.13(h)(2) (iii), for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, i.e. , one data point in each of the 15-minute quadrants of the hour.

(ii) Except as provided under 40 CFR 60.13(h)(2)(iii), for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.

(iii) For any operating hour in which required maintenance or quality-assurance activities are performed:

(A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or

(B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.

(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph 40 CFR 60.13(h)(2)(iii) are met, based solely on valid data recorded after the successful calibration.

(v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.

(vi) Except as provided under 40 CFR 60.13(h)(2)(vii), data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

(vii) Owners and operators complying with the requirements of 40 CFR 60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.

(viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (e.g., hours with < 30 minutes of unit operation under 40 CFR 60.47b(d)).

(ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).

- The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.
- The span value for the NO_x CEMS is 500 ppm.
- When NO_x emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data will be obtained by using standby monitoring systems, EPA Method 7, EPA Method 7A, or other approved reference methods to provide emissions data for a minimum of 75% of the operating hours in each steam-generating unit operating day, in at least 22 out of 30 successive steam-generating unit operating days.

[40 CFR 60.46b(b-f), 40 CFR 60.13(h)(2), 40 CFR 52.670(d), 8/14/06]

6.12 40 CFR 60 Subpart Db - § 60.49b Reporting and recordkeeping requirements

- In accordance with 40 CFR 60.49b(a), the permittee shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include the design heat input capacity of the boiler and identification of the fuel to be combusted in the boiler, and the annual capacity factor at which the permittee anticipates operating the boiler based on all fuels fired and based on each individual fuel fired.
- The permittee shall record and maintain records of the amounts of the fuel combusted during each day and calculate the annual capacity factor for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
- The permittee shall maintain the following records for each boiler operating day:
 - (1) Calendar date
 - (2) The average hourly NO_x emission rates (expressed as NO₂) (ng/J or lb/MMBtu heat input) measured or predicted.
 - (3) The 30-day average NO_x emission rate (lb/MMBtu heat input) calculated at the end of each boiler operating day from the measured or predicted hourly NO_x emission rates for the preceding 30 boiler operating days.
 - (4) Identification of the boiler operating days when the calculated 30-day average NO_x emissions rates are in excess of the NO_x emissions standards in Permit Conditions 5.4 and 5.13 with the reasons for such excess emissions as well as a description of corrective actions taken.
 - (5) Identification of the boiler operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.

- (6) Identification of the times when emissions data have been excluded from the calculation of average emissions rates and the reasons for excluding data.
 - (7) Identification of “F” factor used for calculations, method determination, and type of fuel combusted. An “F” factor is the ratio of the gas volume of the products of combustion to the heat content of the fuel.
 - (8) Identification of the times when the pollutant concentration exceeded the full span of the CEMS.
 - (9) Description of any modifications to the continuous emissions monitoring system that could affect the ability of the CEMS to comply with Performance Specification 2 or 3.
 - (10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60, Appendix F, Procedure 1.
- The permittee shall submit excess emission reports for any excess emissions that occurred during the reporting period.
 - The permittee shall submit reports containing the information recorded under 40 CFR 60.49b(g).
 - The permittee may submit electronic quarterly reports for NO_x in lieu of submitting the written reports required under 40 CFR 60.49b (h) or (i). The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of 40 CFR 60 subpart Db was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.
 - The reporting period for the reports required under 40 CFR 60, Subpart Db is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[40 CFR 60.49b(a-w)]

40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

6.13 40 CFR 63 Subpart DDDDD - § 63.7500 Work practice standards

In accordance with §63.7500(a)(1), the HPB&W boiler shall comply with the applicable work practice provisions of Table 3 to Subpart DDDDD. Table 6.4 provides a summary of the applicable requirements.

Table 6.4 Summary of Work Practices

If your unit is . . .	You must meet the following . . .
A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater	Conduct a tune-up of the boiler or process heater annually as specified in §63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.
An existing boiler or process heater located at a major source facility, not including limited use units.	<p>Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in § 63.7575:</p> <ul style="list-style-type: none"> a. A visual inspection of the boiler or process heater system. b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints. c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator. d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage. e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified. f. A list of cost-effective energy conservation measures that are within the facility's control. g. A list of the energy savings potential of the energy conservation measures identified. h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[40 CFR 63.7500(a)(1)]

6.14 40 CFR 63 Subpart DDDDD - § 63.7500 Good air pollution control practices

In accordance with §63.7500(a)(3), at all times the permittee must operate and maintain any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to DEQ that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.7500(a)(3)]

6.15 40 CFR 63 Subpart DDDDD - § 63.7540 Continuous compliance with work practice standards

In accordance with §63.7540(a), the permittee must demonstrate continuous compliance with the work practice standards in Table 3 to Subpart DDDDD and paragraphs (a)(1) through (19) of this condition.

(10) if your boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, you must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of this condition. This frequency does not apply to limited-use boilers and process heaters, as defined in §63.7575, or units with continuous oxygen trim systems that maintain an optimum air to fuel ratio.

(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;

(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(vi) Maintain on-site and submit, if requested by DEQ, an annual report containing the information in paragraphs (10)(vi)(A) through (C) of this condition,

(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(B) A description of any corrective actions taken as a part of the tune-up; and

(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

[40 CFR 63.7540(a)]

6.16 40 CFR 63 Subpart DDDDD - § 63.7550 Reporting

In accordance with §63.7550, the permittee shall comply with the following:

(b) Unless DEQ has approved a different schedule for submission of reports under §63.10(a), the permittee must submit each report, according to paragraph (h) of this condition, by the date in Table 9 to Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of this condition. For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or operating limits, the permittee may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this condition, instead of a semi-annual compliance report.

(1) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in §63.7495 and ending on July 31 or January 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report) after the compliance date that is specified for your source in §63.7495.

(2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in §63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

(3) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.

(4) Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.

(c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

(1) If the facility is subject to the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of this condition.

(h) The permittee must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this condition.

(3) The permittee must submit all reports required by Table 9 of Subpart DDDDD electronically via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the

reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to DEQ and EPA at the appropriate address listed in §63.13. The permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

[40 CFR 63.7550]

6.17 40 CFR 63 Subpart DDDDD - § 63.7555 Records

In accordance with §63.7555, the permittee shall comply with the following:

(a) The permittee must keep records according to paragraphs (a)(1) of this condition.

(1) A copy of each notification and report that the permittee submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in §63.10(b)(2)(xiv).

[40 CFR 63.7555]

6.18 40 CFR 63 Subpart DDDDD - § 63.7560 Records Form

In accordance with §63.7560, the permittee shall comply with the following:

(a) The permittee's records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) The permittee must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee can keep the records off site for the remaining 3 years.

[40 CFR 63.7560]

7 Emissions Unit Group 4: Babcock and Wilcox Boiler

Summary Description

The following is a narrative description of the Babcock and Wilcox boiler regulated in this Tier I operating permit. This description is for informational purposes only.

The natural gas-fired boiler is equipped with a COEN QLN, low NO_x spud-type burner. The boiler has a design capacity of 58,000 lb of steam per hour and a burner capacity of 63.8 MMBtu/hr.

Table 7.1 describes the devices used to control emissions from the Babcock and Wilcox boiler.

Table 7.1 Babcock and Wilcox Boiler Description

Source ID	Emissions Units / Processes	Control Devices
1002.0	Babcock and Wilcox boiler	None

Table 7.2 contains only a summary of the requirements that apply to the Babcock and Wilcox boiler. Specific permit requirements are listed below.

Table 7.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
7.2	PM	0.64 lb/hr, 2.79 T/yr	PTC No. P-2016.0055	7.3 - 7.5
7.1	PM ₁₀	0.32 lb/hr, 1.40 T/yr	PTC No. P-2016.0055	7.3 - 7.5
7.1	SO ₂	0.04 lb/hr, 0.17 T/yr	PTC No. P-2016.0055	7.3 - 7.5
7.1	NO _x	2.88 lb/hr, 12.63 T/yr	PTC No. P-2016.0055	7.3 - 7.5
7.1	CO	11.7 lb/hr, 51.1 T/yr	PTC No. P-2016.0055	7.3 - 7.5
7.1	VOC	0.19 lb/hr, 0.84 T/yr	PTC No. P-2016.0055	7.3 - 7.5
7.3	Fuel usage	559 MMcf/yr	PTC No. P-2016.0055	7.5

Emission Limits

7.1 Emissions Limits

The emissions from the Babcock and Wilcox boiler stack shall not exceed any corresponding emissions rate limits listed in Table 7.3.

Table 7.3 Babcock and Wilcox Boiler Emission Limits^(a)

Source Description	PM ₁₀ ^(b)		SO ₂		NO _x		CO		VOC	
	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)
Babcock and Wilcox Boiler	0.32	1.40	0.04	0.17	2.88	12.63	11.7	51.1	0.19	0.84

- a) In absence of any other credible evidence, compliance is ensured by complying with permit operating, monitoring, and record keeping requirements.
- b) 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.
- c) 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.
- d) Tons per any consecutive 12-calendar month period.

[PTC No. P-2016.0055, 8/19/19]

7.2 PM Limit

The PM emissions from the Babcock and Wilcox boiler exhaust stack shall not exceed 0.64 lb/hr and 2.79 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

Operating Requirements

7.3 Throughput Limit

The Babcock and Wilcox boiler shall not burn more than 559 MMcf of natural gas per year.

[PTC No. P-2016.0055, 8/19/19]

7.4 Fuel Limit

The Babcock and Wilcox boiler shall only use natural gas as fuel.

[PTC No. P-2016.0055, 8/19/19]

Monitoring and Recordkeeping Requirements

7.5 Throughput Monitoring Requirement

The permittee shall record and maintain records of the amounts of natural gas combusted in the Babcock and Wilcox boiler during each calendar month.

The permittee shall record the cumulative volume of natural gas fuel consumed by the Babcock and Wilcox boiler on a monthly basis. The permittee shall record the total natural gas usage in MMcf per rolling 12-month period. The records shall be kept on site for at least five years and shall be made available to DEQ representatives upon request.

[PTC No. P-2016.0055, 8/19/19, 40 CFR 60.48c(g)(2); 40 CFR 60.48c(i)]

40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

7.6 40 CFR 63 Subpart DDDDD - § 63.7500 Work practice standards

In accordance with §63.7500(a)(1), the HPB&W boiler shall comply with the applicable work practice provisions of Table 3 to Subpart DDDDD. Table 7.4 provides a summary of the applicable requirements.

Table 7.4 Summary of Work Practices

If your unit is . . .	You must meet the following . . .
A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater	Conduct a tune-up of the boiler or process heater annually as specified in §63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.

If your unit is . . .	You must meet the following . . .
<p>An existing boiler or process heater located at a major source facility, not including limited use units.</p>	<p>Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in § 63.7575:</p> <ul style="list-style-type: none"> a. A visual inspection of the boiler or process heater system. b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints. c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator. d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage. e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified. f. A list of cost-effective energy conservation measures that are within the facility's control. g. A list of the energy savings potential of the energy conservation measures identified. h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[40 CFR 63.7500(a)(1)]

7.7 40 CFR 63 Subpart DDDDD - § 63.7500 Good air pollution control practices

In accordance with §63.7500(a)(3), at all times the permittee must operate and maintain any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to DEQ that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.7500(a)(3)]

7.8 40 CFR 63 Subpart DDDDD - § 63.7540 Continuous compliance with work practice standards

In accordance with §63.7540(a), the permittee must demonstrate continuous compliance with the work practice standards in Table 3 to Subpart DDDDD and paragraphs (a)(1) through (19) of this condition.

(10) if your boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, you must conduct an annual tune-up of the boiler or process heater to

demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of this condition. This frequency does not apply to limited-use boilers and process heaters, as defined in §63.7575, or units with continuous oxygen trim systems that maintain an optimum air to fuel ratio.

(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;

(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(vi) Maintain on-site and submit, if requested by DEQ, an annual report containing the information in paragraphs (10)(vi)(A) through (C) of this condition,

(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(B) A description of any corrective actions taken as a part of the tune-up; and

(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

[40 CFR 63.7540(a)]

7.9 40 CFR 63 Subpart DDDDD - § 63.7550 Reporting

In accordance with §63.7550, the permittee shall comply with the following:

(b) Unless DEQ has approved a different schedule for submission of reports under §63.10(a), the permittee must submit each report, according to paragraph (h) of this condition, by the date in Table 9 to Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of this condition. For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or operating limits, the permittee may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this condition, instead of a semi-annual compliance report.

(1) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in §63.7495 and ending on July 31 or January 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report) after the compliance date that is specified for your source in §63.7495.

(2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in §63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

(3) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.

(4) Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.

(c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

(1) If the facility is subject to the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of this condition.

(h) The permittee must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this condition.

(3) The permittee must submit all reports required by Table 9 of Subpart DDDDD electronically via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available.

If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to DEQ and EPA at the appropriate address listed in §63.13. The permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

[40 CFR 63.7550]

7.10 40 CFR 63 Subpart DDDDD - § 63.7555 Records

In accordance with §63.7555, the permittee shall comply with the following:

(a) The permittee must keep records according to paragraphs (a)(1) of this condition.

(1) A copy of each notification and report that the permittee submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in §63.10(b)(2)(xiv).

[40 CFR 63.7555]

7.11 40 CFR 63 Subpart DDDDD - § 63.7560 Records Form

In accordance with §63.7560, the permittee shall comply with the following:

(a) The permittee's records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) The permittee must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee can keep the records off site for the remaining 3 years.

[40 CFR 63.7560]

8 Emissions Unit Group 5: Granulation No. 1 Process

Summary Description

The following is a narrative description of the Granulation No. 1 process regulated in this Tier I operating permit. This description is for informational purposes only.

Granulation No. 1 normally produces mono-ammonium phosphate (MAP, 11-52-0) and ammonium phosphate sulfate (16-20-0) granulated products. The Granulation No. 1 process involves reacting phosphoric acid or sulfuric acid to produce ammonium phosphate or ammonium phosphate-sulfate slurry. The slurry is sprayed onto a recycle stream of product in the granulator. Depending on the product, phosphoric acid or ammonia is also added at this time. Process gases from both the reactor and granulator are combined in a common stream before passing through the reactor/granulator Venturi scrubber (also referred to as an absorber in 40 CFR 63 Subpart BB terminology). Scrubber blowdown is transferred to the reactor for further P_2O_5 recovery, and the cleaned air stream is discharged to the atmosphere.

The product from the granulator is transferred to the dryer where it is dried. A cyclone dust collector removes the larger dust particles entrained in the off-gases exiting the dryer. This dust collected by the cyclone returns to the granulator via the recycle drag conveyor below the cyclones outlet. Finer dust particles and gaseous pollutants are removed as they pass through the dryer Venturi scrubber. Scrubber blowdown is returned to the reactor tank for further P_2O_5 recovery. The exhaust of the dryer scrubber exits through the dryer stack.

The product stream is screened into three fractions: oversized, product, and fines. The fines are recycled to the granulator via the recycle drag conveyor while the oversize first passes through a cage mill where it is crushed and incorporated back into the granulator via the drag conveyor. A slip stream off the product stream undergoes a second screening (polishing screens) to further reduce the percentage of fines. The size of this stream is regulated by the motor amp draw on the granulator elevator. Fines from the polishing screen are returned to the granulator via the recycle drag conveyor. Dust from the screening process passes through the Granulation No. 1 vent baghouse dust collector where it is separated from the air. The dust removed in the vent baghouse is transported to the granulator via the recycle drag conveyor.

The product stream is transferred to the fluidized bed cooler, cooled, and then coated with wax for dust control before being sent out to the warehouse. The dust laden offgas stream from the fluidized bed cooler passes through the cooler baghouse dust collector where the particulates are separated from the air. The dust removed in the baghouse is recycled to the granulator via a screw conveyor that reports to the recycle drag conveyor. The cleaned air stream is ducted to the dryer burner, where the heat value of the cooler gas stream is reclaimed.

Table 8.1 describes the devices used to control emissions from the Granulation No. 1 process.

Table 8.1 Granulation No. 1 Process Description

Source ID	Emissions Units / Processes	Control Devices / Emission Points
400.0	Dryer	Granulation No. 1 dryer scrubber stack
401.0	Granulator	Granulation No. 1 reactor/granulator scrubber stack
403.0	Reactor	
406.0	Cooler	Cooler baghouse / Dryer burner
407.1	Polishing screen	Vent baghouse stack
411.1	Fines drag	
412.1	Elevator to granulator	
413.1	Elevator to screens	
414.2	Reject conveyor to fines drag	
419.0	Product dump from overhead	
420.0	Front-end loader operation	Fugitive
421.0	Underground conveyor	
422.0	Elevator	
423.0	Crossover belt	
423.1	Screens for crossover belt	
424.0	Bulking loadout	

Table 8.2 contains only a summary of the requirements that apply to the Granulation No. 1 process. Specific permit requirements are listed below.

Table 8.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
8.1	PM	Process weight rate (all stacks combined)	IDAPA 58.01.01.702	8.7 - 8.9, 8.13, 8.19 – 8.31
8.2	PM/PM ₁₀	10.9 lb/hr, 47.7 T/yr (all stacks combined)	PTC No. P-2016.0055	8.7 - 8.9, 8.13, 8.19 – 8.31
8.3	Fluorides	7.8 lb/hr, 34.16 T/yr	PTC No. P-2016.0055	8.12 - 8.18
8.12		0.060 lb total fluoride/T equivalent P ₂ O ₅ feed (all stacks combined)	40 CFR 63.622(a)	
8.4	NO _x	1.44 lb/hr, 6.3 T/yr (all stacks combined)	PTC No. P-2016.0055	8.10
8.5	CO	0.37 lb/hr, 1.6 T/yr (all stacks combined)	PTC No. P-2016.0055	
8.6	SO ₂	0.004 lb/hr, 0.019 T/yr (all stacks combined)	PTC No. P-2016.0055	

Emission Limits

8.1 PM Emission Limit

No person shall emit PM to the atmosphere from any process or process equipment commencing operating on or after October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in lb/hr, and PW is the process weight in lb/hr:

- If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.60}$$

- If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

[IDAPA 58.01.01.702, 4/5/00]

8.2 PM/PM₁₀ Emission Limit

The emissions from the Granulation No. 1 plant (all stacks combined) shall not exceed any corresponding emissions rate limits listed in Table 8.3.

Table 8.3 Granulation No. 1 PM/PM₁₀ Emission Limits^(a)

Source Description	PM ₁₀ ^(b)	
	lb/hr ^(c)	T/yr ^(d)
Reactor/granulator stack	10.9	47.7
Dryer stack		
Baghouse stack (Granulation No. 1 baghouse, also called vent baghouse)		

- 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.

[PTC No. P-2016.0055, 8/19/19; 40 CFR 52.670(d), 8/14/06]

8.3 Fluoride Emission Limit

Total fluoride emissions from the combined Granulation No. 1 process stacks shall not exceed 7.8 lb/hr and 34.16 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

8.4 NO_x Emission Limit

The NO_x emissions from the combined Granulation No. 1 process stacks shall not exceed 1.44 lb/hr and 6.3 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

8.5 CO Emission Limit

The CO emissions from the combined Granulation No. 1 process stacks shall not exceed 0.37 lb/hr and 1.6 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

8.6 SO₂ Emission Limit

The SO₂ emissions from the combined Granulation No. 1 process stacks shall not exceed 0.004 lb/hr and 0.019 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

Operating Requirements

8.7 Scrubber Maintenance

Maintenance to the scrubbers and/or process maintenance shall be performed if visible emissions from the scrubber stacks exceed 15% opacity. A record of maintenance shall be maintained on site for the most recent five years and shall be made available to DEQ representatives upon request.

[PTC No. P-2016.0055, 8/19/19]

8.8 Baghouse Maintenance

Maintenance to the baghouse shall be performed if visible emissions from the baghouse stack exceed 10% opacity. A record of maintenance shall be maintained on site for the most recent five years and shall be made available to DEQ representatives upon request.

[PTC No. P-2016.0055, 8/19/19]

Monitoring, Compliance Tests, and Compliance Provisions

8.9 PM and PM₁₀ Compliance Test

The permittee shall conduct a compliance test to demonstrate compliance with the hourly PM/PM₁₀ emission limit in Permit Condition 8.2. The PM/PM₁₀ emissions shall be measured using EPA reference test methods 5 and 202, or methods 201A and 202, or DEQ approved alternatives.

Testing shall be performed according to the following schedule. If the pollutant emission rate measured in the most recent test is less than or equal to 75% of the emission limit, the next test shall be conducted within five years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission limit, the next test shall be conducted within two years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 90% of the emission limit, the next test shall be conducted within 13-months of the test date.

The permittee shall record the equivalent P₂O₅ feed rate to the process, the pressure drop across the baghouse, the pressure drop across each scrubber, and the flow rate of the scrubber liquid to each scrubber during compliance tests.

[PTC No. P-2016.0055, 8/19/19]

8.10 Natural Gas Dryer Usage

For the purposes of determining compliance with the short-term (lb/hr) and yearly (tons-per-year) emission limits for the pollutants NO_x, CO, and SO₂ in Permit Conditions 8.4 through 8.6, the permittee shall continuously monitor the amount of natural gas fired in the dryer. On a monthly basis, the permittee shall record the monthly natural gas consumption of the dryer, the monthly operating hours of the dryer, and the rolling 12-month natural gas usage.

[PTC No. P-2016.0055, 8/19/19]

8.11 Fugitive Emissions Compliance

Fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651.

[PTC No. P-2016.0055, 8/19/19]

40 CFR 63 Subpart BB – National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants

8.12 40 CFR 63 Subpart BB - § 63.622 Standards and compliance dates

In accordance with §63.622(a), for each existing phosphate fertilizer process line that commenced construction or reconstruction on or before December 27, 1996, the permittee must comply with the emission limit specified in Table 1 to this subpart. For an existing phosphate fertilizer process line, the permittee shall meet an emission limit for total fluorides of 0.060 lb/ton of equivalent P₂O₅ feed.

In accordance with §63.622(c), beginning on August 19, 2015, the permittee must not introduce into any evaporative cooling tower any liquid effluent from any absorber installed to control emissions from process equipment.

In accordance with §63.622(d), beginning on August 19, 2015, during periods of startup and shutdown (as defined in §63.621), the permittee must comply with the work practice specified in this paragraph in lieu of the emission limits specified in paragraph (a) of this section. During periods of startup and shutdown, the permittee must operate any control device(s) being used at the affected source, monitor the operating parameters specified in Table 3 of this subpart, and comply with the operating limits specified in Table 4 of this subpart.

[40 CFR 63.622 (a, c, d)]

8.13 40 CFR 63 Subpart BB - § 63.625 Operating and monitoring requirements

In accordance with §63.625(a), for each phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line), or granular triple superphosphate process line subject to the provisions of this subpart, the permittee must comply with the monitoring requirements specified in paragraphs (a)(1) and (2) of this section.

- (1) Install, calibrate, maintain, and operate a continuous monitoring system (CMS) according to your site-specific monitoring plan specified in §63.628(c). The CMS must have an accuracy of ±5 percent over its operating range and must determine and permanently record the mass flow of phosphorus-bearing material fed to the process.
- (2) Maintain a daily record of equivalent P₂O₅ feed. Calculate the equivalent P₂O₅ feed by determining the total mass rate in metric ton/hour of phosphorus bearing feed using the procedures specified in §63.626(f)(3).

In accordance with §63.625(d), if the permittee uses a control device(s) to comply with the emission limits specified in Table 1 or 2 of this subpart, the permittee must install a continuous parameter monitoring system (CPMS) and comply with the requirements specified in paragraphs (d)(1) through (4) of this section.

- (1) The permittee must monitor the operating parameter(s) applicable to the control device that you use as specified in Table 3 to this subpart and establish the applicable limit or range for the operating parameter limit as specified in paragraphs (d)(1)(i) and (ii) of this section, as applicable.
 - (i) The permittee must monitor the operating parameter(s) applicable to the control device that you use as specified in Table 3 to this subpart and

establish the applicable limit or range for the operating parameter limit as specified in paragraphs (d)(1)(i) and (ii) of this section, as applicable. Table 8.4 provides a summary of the applicable requirements in Table 3 of the subpart.

Table 8.4 Summary of Monitoring Equipment Monitoring Parameters

You must ...	If ...	And you must monitor ...	And ...
Install a continuous parameter monitoring system (CPMS) for liquid flow at the inlet of the absorber.	Your absorber is designed and operated with pressure drops of 5 inches of water column or more; and you choose to monitor only the influent liquid flow, rather than the liquid-to-gas ratio	Influent liquid flow.	
Install CPMS for pressure at the gas stream inlet and outlet of the absorber	Your absorber is designed and operated with pressure drops of 5 inches of water column or more	Pressure drop through the absorber	You may measure the pressure of the inlet gas using amperage on the blower if a correlation between pressure and amperage is established.

- (ii) If the permittee uses an absorber to comply with the emission limits in Table 1 or 2 to this subpart and you monitor pressure drop across the absorber, you must establish allowable ranges using the methodology specified in paragraphs (d)(1)(ii)(A) and (B) of this section.
 - (A) The allowable range for the daily averages of the pressure drop across an absorber and of the flow rate of the absorber liquid to each absorber in the process absorbing system, or secondary voltage for a wet electrostatic precipitator, is ± 20 percent of the baseline average value determined in paragraph (d)(1)(i) of this section. The Administrator retains the right to reduce the ± 20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ± 10 percent under any instance.
 - (B) As an alternative to paragraph (d)(1)(ii)(A) of this section, the permittee may establish allowable ranges for the daily averages of the pressure drop across an absorber for the purpose of assuring compliance with this subpart using the procedures described in this paragraph. The permittee must establish the allowable ranges based on the baseline average values recorded during previous performance tests or the results of performance tests conducted specifically for the purposes of this paragraph. The permittee must conduct all performance tests using the methods specified in §63.626. The permittee must certify that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges. When a source using the methodology of this paragraph is retested, you must determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges.

- (2) The permittee must monitor, record, and demonstrate continuous compliance using the minimum frequencies specified in Table 4 to this subpart. Table 8.5 provides a summary of the applicable requirements in Table 4 of the subpart.

Table 8.5 Summary of Calibration and Quality Control Requirements for CPMS

For the operating parameter applicable to you, as specified in Table 3 . . .	You must establish the following operating limit during your performance test . . .	And you must monitor, record, and demonstrate continuous compliance using these minimum frequencies . . .		
		Data measurement	Data recording	Data averaging period for compliance
Absorbers (Wet Scrubbers)				
Influent liquid flow	Minimum inlet liquid flow	Continuous	Every 15 minutes	Daily
Influent liquid flow rate and gas stream flow rate	Minimum influent liquid-to-gas ratio ^a	Continuous	Every 15 minutes	Daily
Pressure drop	Pressure drop range	Continuous	Every 15 minutes	Daily

- (3) The permittee must comply with the calibration and quality control requirements that are applicable to the operating parameter(s) you monitor as specified in Table 5 to this subpart. Table 8.6 provides a summary of the applicable requirements in Table 5 of the subpart.

Table 8.6 Summary of Calibration and Quality Control Requirements for CPMS

If you monitor this parameter . . .	Your accuracy requirements are . . .	And your calibration requirements are . . .
Flow Rate	<p>±5 percent over the normal range of flow measured or 1.9 liters per minute (0.5 gallons per minute), whichever is greater, for liquid flow rate.</p> <p>±5 percent over the normal range of flow measured or 28 liters per minute (10 cubic feet per minute), whichever is greater, for gas flow rate.</p> <p>±5 percent over the normal range measured for mass flow rate.</p>	<p>Performance evaluation annually and following any period of more than 24 hours throughout which the flow rate exceeded the maximum rated flow rate of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant flow sensor.</p> <p>Selection of a representative measurement location where swirling flow or abnormal velocity distributions due to upstream and downstream disturbances at the point of measurement are minimized.</p>
Pressure	<p>±5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater.</p>	<p>Checks for obstructions (<i>e.g.</i>, pressure tap pluggage) at least once each process operating day.</p> <p>Performance evaluation annually and following any period of more than 24 hours throughout which the pressure exceeded the maximum rated pressure of the sensor, or the data recorder was off scale.</p> <p>Checks of all mechanical connections for leakage monthly.</p> <p>Visual inspection of all components for integrity, oxidation and galvanic corrosion every 3 months, unless the CPMS has a redundant pressure sensor.</p> <p>Selection of a representative measurement location that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.</p>

- (4) If the permittee uses a fabric filter system to comply with the emission limits specified in Table 1 or 2 to this subpart, the system must meet the requirements for fabric filters specified in paragraph (e) of this section.

In accordance with §63.625(e), beginning August 19, 2016, if the permittee uses a fabric filter system to comply with the emission limits specified in Table 1 or 2 to this subpart, then the fabric filter must be equipped with a bag leak detection system that is installed, calibrated, maintained and continuously operated according to the requirements in paragraphs (e)(1) through (10) of this section.

- (1) Install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (*e.g.*, for a positive-pressure fabric filter) of the fabric filter.
- (2) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic feet) or less.
- (3) Use a bag leak detection system equipped with a device to continuously record the output signal from the system sensor.
- (4) Use a bag leak detection system equipped with a system that will trigger an alarm when an increase in relative particulate material emissions over a preset level is detected. The alarm must be located such that the alert is observed readily by plant operating personnel.
- (5) Install a bag leak detection system in each compartment or cell for positive-pressure fabric filter systems that do not duct all compartments or cells to a common stack. Install a bag leak detector downstream of the fabric filter if a negative-pressure or induced-air filter is used. If multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (6) Calibration of the bag leak detection system must, at a minimum, consist of establishing the baseline output level by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.
- (7) After initial adjustment, the permittee must not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time, except as established in your site-specific monitoring plan required in §63.628(c). In no event may the sensitivity be increased more than 100 percent or decreased by more than 50 percent over a 365-day period unless such adjustment follows a complete inspection of the fabric filter system that demonstrates that the system is in good operating condition.
- (8) Operate and maintain each fabric filter and bag leak detection system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. If the alarm sounds more than 5 percent of the operating time during a 6-month period, it is considered an operating parameter exceedance. Calculate the alarm time (*i.e.*, time that the alarm sounds) as specified in paragraphs (e)(8)(i) through (iii) of this section.
 - (i) If inspection of the fabric filter demonstrates that corrective action is not required, the alarm duration is not counted in the alarm time calculation.
 - (ii) If corrective action is required, each alarm time is counted as a minimum of 1 hour.

- (iii) If it takes longer than 1 hour to initiate corrective action, each alarm time (*i.e.*, time that the alarm sounds) is counted as the actual amount of time taken by you to initiate corrective action.
- (9) If the alarm on a bag leak detection system is triggered, you must initiate procedures within 1 hour of an alarm to identify the cause of the alarm and then initiate corrective action, as specified in §63.628(d)(2), no later than 48 hours after an alarm. Failure to take these actions within the prescribed time periods is considered a violation.
- (10) Retain records of any bag leak detection system alarm, including the date, time, duration, and the percent of the total operating time during each 6-month period that the alarm triggers, with a brief explanation of the cause of the alarm, the corrective action taken, and the schedule and duration of the corrective action.

[40 CFR 63.625 (a, d)]

8.14 40 CFR 63 Subpart BB - § 63.626 Performance tests and compliance provisions

In accordance with §63.626(b), after the permittee conducts the initial performance test specified in paragraph (a) of this section, the permittee must conduct a performance test once per calendar year.

In accordance with §63.626(d),

- (1) The permittee must conduct the performance tests specified in this section at representative (normal) conditions for the process. Representative (normal) conditions means those conditions that:
 - (i) Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and
 - (ii) Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition.
- (2) Operations during startup, shutdown, and malfunction do not constitute representative (normal) operating conditions for purposes of conducting a performance test. The permittee must record the process information that is necessary to document the operating conditions during the test and include in such record an explanation to support that such conditions represent representative (normal) conditions. Upon request, the permittee must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

In accordance with §63.626(e), in conducting all performance tests, the permittee must use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in §63.7(f).

In accordance with §63.626(f), for each phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line), and granular triple superphosphate process line, the permittee must determine compliance with the applicable total fluorides standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (f)(1) through (3) of this section.

- (1) Compute the emission rate (E) of total fluorides for each run using Equation BB-1:

$$E = \left(\sum_{i=1}^N C_i Q_i \right) / (PK) \quad (\text{Eq. BB-1})$$

Where:

E = Emission rate of total fluorides, gram/metric ton (pound/ton) of equivalent P₂O₅ feed.

C_i = Concentration of total fluorides from emission point “i,” milligram/dry standard cubic meter (milligram/dry standard cubic feet).

Q_i = Volumetric flow rate of effluent gas from emission point “i,” dry standard cubic meter/hour (dry standard cubic feet/hour).

N = Number of emission points associated with the affected facility.

P = Equivalent P₂O₅ feed rate, metric ton/hour (ton/hour).

K = Conversion factor, 1000 milligram/gram (453,600 milligram/pound).

- (2) The permittee must use Method 13A or 13B (40 CFR part 60, appendix A) to determine the total fluorides concentration (C_i) and the volumetric flow rate (Q_i) of the effluent gas at each emission point. The sampling time for each run at each emission point must be at least 60 minutes. The sampling volume for each run at each emission point must be at least 0.85 dscm (30 dscf). If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4 in Method 13 A, may be omitted.
- (3) Compute the equivalent P₂O₅ feed rate (P) using Equation BB-2:

$$P = M_p R_p \quad (\text{Eq. BB-2})$$

Where:

P = P₂O₅ feed rate, metric ton/hour (ton/hour).

M_p = Total mass flow rate of phosphorus-bearing feed, metric ton/hour (ton/hour).

R_p = P₂O₅ content, decimal fraction.

- (i) Determine the mass flow rate (M_p) of the phosphorus-bearing feed using the measurement system described in §63.625(a).
- (ii) Determine the P₂O₅ content (R_p) of the feed using, as appropriate, the following methods specified in the Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists (incorporated by reference, see §63.14) where applicable:
 - (A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.
 - (B) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method A—Volumetric Method.
 - (C) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method B—Gravimetric Quimociac Method.
 - (D) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method C—Spectrophotometric Method.

- (E) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method A—Volumetric Method.
- (F) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method B—Gravimetric Quimociac Method.
- (G) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method C—Spectrophotometric Method.

In accordance with §63.626(h), if the permittee uses a CMS, you must conduct a performance evaluation, as specified in §63.8(e), in accordance with your site-specific monitoring plan in §63.628(c). For fabric filters, the permittee must conduct a performance evaluation of the bag leak detection system consistent with the guidance provided in Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see §63.14). The permittee must record the sensitivity of the bag leak detection system to detecting changes in particulate matter emissions, range, averaging period, and alarm set points during the performance test.

[40 CFR 63.626 (b, d-f, h)]

8.15 40 CFR 63 Subpart BB - § 63.627 Notification, recordkeeping, and reporting requirements

In accordance with §63.627(a), the permittee must comply with the notification requirements specified in §63.9. During the most recent performance test, if you demonstrate compliance with the emission limit while operating your control device outside the previously established operating limit, you must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test. When a source is retested and the performance test results are submitted to the Administrator pursuant to paragraph (b)(1) of this section, §63.7(g)(1), or §63.10(d)(2), you must indicate whether the operating limit is based on the new performance test or the previously established limit. Upon establishment of a new operating limit, you must thereafter operate under the new operating limit. If the Administrator determines that you did not conduct the compliance test in accordance with the applicable requirements or that the operating limit established during the performance test does not correspond to representative (normal) conditions, you must conduct a new performance test and establish a new operating limit.

In accordance with §63.627(b), the permittee must comply with the reporting and recordkeeping requirements in §63.10 as specified in paragraphs (b)(1) through (5) of this section.

- (1) The permittee must comply with the general recordkeeping requirements in §63.10(b)(1); and
- (2) As required by §63.10(d), the permittee must report the results of the initial and subsequent performance tests as part of the notification of compliance status required in §63.9(h). You must verify in the performance test reports that the operating limits for each process have not changed or provide documentation of revised operating limits established according to §63.625, as applicable. In the notification of compliance status, you must also:
 - (i) Certify to the Administrator that you have not shipped fresh granular triple superphosphate from an affected facility.
 - (ii) Certify to the Administrator annually that you have complied with the evaporative cooling tower requirements specified in §63.622(c).

- (iii) Submit analyses and supporting documentation demonstrating conformance with the Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see §63.14) and specifications for bag leak detection systems as part of the notification of compliance status report.
 - (iv) If you elect to demonstrate compliance by following the procedures in §63.625(d)(1)(ii)(B), certify to the Administrator annually that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges.
- (3) As required by §63.10(e)(1), the permittee must submit an excess emissions report for any exceedance of an emission or operating parameter limit if the total duration of the exceedances for the reporting period is 1 percent of the total operating time for the reporting period or greater. The report must contain the information specified in §63.10 and paragraph (b)(4) of this section. When exceedances of an emission limit or operating parameter have not occurred, you must include such information in the report. The permittee must submit the report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, you must submit the excess emissions report quarterly until a request to reduce reporting frequency is approved as described in §63.10(e)(3).
- (4) In the event that an affected unit fails to meet an applicable standard, record and report the following information for each failure:
- (i) The date, time and duration of the failure.
 - (ii) A list of the affected sources or equipment for which a failure occurred.
 - (iii) An estimate of the volume of each regulated pollutant emitted over any emission limit.
 - (iv) A description of the method used to estimate the emissions.
 - (v) A record of actions taken to minimize emissions in accordance with §63.628(b), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.
- (5) The permittee must submit a summary report containing the information specified in §63.10(e)(3)(vi). The permittee must submit the summary report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half.

In accordance with §63.627(c), the permittee's records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on site, or accessible from a central location by computer or other means that instantly provide access at the site, for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

In accordance with §63.627(d), in computing averages to determine compliance with this subpart, the permittee must exclude the monitoring data specified in paragraphs (d)(1) through (3) of this section.

- (1) Periods of non-operation of the process unit;
- (2) Periods of no flow to a control device; and

- (3) Any monitoring data recorded during continuous parameter monitoring system (CPMS) breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable), and high-level adjustments.

In accordance with §63.627(e), within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, the permittee must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (e)(1) or (2) of this section.

- (1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<http://www.epa.gov/ttn/chief/ert/index.html>), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (http://cdx.epa.gov/epa_home.asp). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

[40 CFR 63.627 (a-e)]

8.16 40 CFR 63 Subpart BB - § 63.628 General requirements and applicability of general provisions of this part

In accordance with §63.628(a), the permittee must comply with the general provisions in subpart A of this part as specified in appendix A to this subpart.

In accordance with §63.628(b), at all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination by the Administrator of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

In accordance with §63.628(c), for each CMS used to demonstrate compliance with any applicable emission limit, the permittee must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan according to the requirements specified in

paragraphs (c)(1) through (3) of this section. The permittee must submit the site-specific monitoring plan, if requested by the Administrator, at least 60 days before the initial performance evaluation of the CMS. The requirements of this paragraph also apply if a petition is made to the Administrator for alternative monitoring parameters under §63.8(f).

- (1) The permittee must include the information specified in paragraphs (c)(1)(i) through (vi) of this section in the site-specific monitoring plan.
 - (i) Location of the CMS sampling probe or other interface. The permittee must include a justification demonstrating that the sampling probe or other interface is at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device).
 - (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.
 - (iii) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).
 - (iv) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and Table 4 to this subpart.
 - (v) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), (e)(2)(i).
- (2) The permittee must include a schedule for conducting initial and subsequent performance evaluations in the site-specific monitoring plan.
- (3) The permittee must keep the site-specific monitoring plan on site for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If you revise the site-specific monitoring plan, you must keep previous (*i.e.*, superseded) versions of the plan on site to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. You must include the program of corrective action required under §63.8(d)(2) in the plan.

In accordance with §63.628(d), for each bag leak detection system installed to comply with the requirements specified in §63.625(e), the permittee must include the information specified in paragraphs (d)(1) and (2) of this section in the site-specific monitoring plan specified in paragraph (c) of this section.

- (1) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations), including how the alarm set-point will be established.
- (2) A corrective action plan describing corrective actions to be taken and the timing of those actions when the bag leak detection alarm sounds. Corrective actions may include, but are not limited to, the actions specified in paragraphs (d)(2)(i) through (vi) of this section.
 - (i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other conditions that may cause an increase in regulated material emissions.
 - (ii) Sealing off defective bags or filter media.

- (iii) Replacing defective bags or filter media or otherwise repairing the control device.
- (iv) Sealing off a defective fabric filter compartment.
- (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.
- (vi) Shutting down the process controlled by the fabric filter.

In accordance with §63.628(e), if the permittee uses blower design capacity to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio as specified in Table 3 to this subpart, then you must include in the site-specific monitoring plan specified in paragraph (c) of this section calculations showing how you determined the maximum possible gas flow rate through the absorber based on the blower's specifications (including any adjustments you made for pressure drop).

[40 CFR 63.628 (a-e)]

8.17 40 CFR 63 Subpart BB - § 63.631 Exemption from new source performance standards

In accordance with §63.631, any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart V, subpart W, or subpart X. To be exempt, a source must have a current operating permit pursuant to title V of the Clean Air Act and the source must be in compliance with all requirements of this subpart.

For each affected source, this exemption is upon the date that you demonstrate to the Administrator that the requirements of §§63.625 and 63.626 have been met.

[40 CFR 63.631]

8.18 40 CFR 63 Subpart BB - § 63.632 Implementation and enforcement

In accordance with §63.632(a), this subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable state, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a state, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a state, local, or Tribal agency.

In accordance with §63.632(b), the authorities specified in paragraphs (b)(1) through (5) of this section are retained by the Administrator of U.S. EPA and cannot be delegated to State, local, or Tribal agencies.

- (1) Approval of alternatives to the requirements in §§63.620, 63.622, 63.625, 63.629, and 63.631.
- (2) Approval of requests under §§63.7(e)(2)(ii) and 63.7 (f) for alternative requirements or major changes to the test methods specified in this subpart, as defined in §63.90.
- (3) Approval of requests under §63.8(f) for alternative requirements or major changes to the monitoring requirements specified in this subpart, as defined in §63.90.
- (4) Waiver or approval of requests under §63.10(f) for alternative requirements or major changes to the recordkeeping and reporting requirements specified in this subpart, as defined in §63.90.
- (5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

[40 CFR 63.632]

40 CFR 64 – Compliance Assurance Monitoring (CAM)

8.19 The purpose of this section of the permit is to include all of the applicable requirements of 40 CFR 64, “Compliance Assurance Monitoring” (CAM). CAM requires selecting compliance indicators that when operated within specified ranges provide a reasonable assurance of compliance. CAM also requires monitoring, record keeping, and reporting requirements.

8.20 Table 8.7 lists the emissions unit and pollutants that are applicable to CAM and details the monitoring requirements for each emissions unit which the permittee shall comply with. The table also specifies the specific values that are approved to determine when an excursion has occurred.

- Emissions Unit: Dryer Scrubber
- Regulated Pollutants: PM/PM₁₀
- Emission Limit: 10.9 lb/hr (all stacks combined)

Table 8.7 Compliance Assurance Monitoring Requirements for the Dryer Scrubber

Requirement	Indicator No. 1	Indicator No. 2
Indicator	Scrubber Liquid Flow Rate	Scrubber Pressure Drop
Measurement Approach	The liquid flow rate is monitored with a flow meter.	The pressure drop is monitored with a differential pressure gauge.
Indicator Range	An excursion ^{a)} is defined as a scrubber water flow of less than 251 gpm and greater than 377 gpm.	An excursion ^{a)} is defined as a pressure drop of less than 7.0 inches of water or greater than 12.5 inches of water.
Performance Criteria Data Representativeness	A liquid flow meter is used to monitor the liquid flow rate at the liquid influent line upstream of the scrubber.	The monitoring system consists of a differential pressure gauge which measures the pressure drop across the scrubber. Pressure taps are located at the upstream and downstream side of the scrubber packing.
QA/QC Practices	The flow meter is calibrated annually.	The differential gauge is calibrated annually.
Monitoring Frequency	The scrubber liquid flow is measured continuously.	The pressure drop across the scrubber is measured continuously.
Data Collection Procedure	The scrubber liquid flow is electronically recorded and stored in a data historian.	The pressure drop is electronically recorded and stored in a data historian.
Averaging Period	Daily average	Daily average

a) Excursion is defined in 40 CFR 64 as a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

8.21 Table 8.8 lists the emissions unit and pollutants that are applicable to CAM and details the monitoring requirements for each emissions unit which the permittee shall comply with. The table also specifies the specific values that are approved to determine when an excursion has occurred.

- Emissions Unit: Vent Baghouse
- Regulated Pollutants: PM/PM₁₀
- Emission Limit: 10.9 lb/hr (all stacks combined)

Table 8.8 Compliance Assurance Monitoring Requirements for the Vent Baghouse

Requirement	Indicator No. 1
Indicator	Opacity Reading
Measurement Approach	Visible emissions from the baghouse exhaust will be monitored daily using a see/no see evaluation procedure.
Indicator Range	An excursion ^(a) is defined as the presence of visible emissions. An excursion shall trigger an inspection, corrective action, and reporting requirements.
Performance Criteria Data Representativeness	Measurements will be made at the emission point of the Vent Baghouse stack.
QA/QC Practices	The observer will be familiar with see/no see procedure.
Monitoring Frequency	A visible emissions observation will be performed daily.
Data Collection Procedure	The visible emissions observation is documented by the observer.
Averaging Period	None

a) Excursion is defined in 40 CFR 64 as a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

CAM Recordkeeping

- 8.22** In accordance with 40 CFR 64.7(a), the permittee shall conduct the monitoring required under this permit upon issuance. **[40 CFR 64.7(a)]**
- 8.23** In accordance with 40 CFR 64.7(b), at all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **[40 CFR 64.7(b)]**
- 8.24** In accordance with 40 CFR 64.7(c)-except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments)-the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the dryer scrubber and vent baghouse are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of CAM, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **[40 CFR 64.7(c)]**
- 8.25** In accordance with 40 CFR 64.7(d), upon detecting an excursion or exceedance, the permittee shall restore operation of the emissions unit(s) (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. **[40 CFR 64.7(d)]**

- 8.26** In accordance with 40 CFR 64.3(b), for the description of the control device(s) (e.g., multiclone in series with a wet scrubber and cyclone separator), if the manufacturer specifications for the monitoring devices for indicator 1 (e.g., pressure drop) and indicator 2 (e.g., scrubbing media flow rate) include calibration procedures but do not specify a calibration frequency, the device shall be calibrated at least once each calendar year.
[40 CFR 64.3(b)(1), (2), and (3)]
- 8.27** In accordance with 40 CFR 64.6(c)(2), an excursion shall be defined as any measured monitoring parameter which is outside the indicator ranges specified for the emissions units in Tables 8.7 and 8.8.
[40 CFR 64.6(c)(2)]
- 8.28** In accordance with 40 CFR 64.7(e), if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to this operating permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[40 CFR 64.7(e)]
- 8.29** In accordance with 40 CFR 64.8(a), the permittee shall develop and implement a quality improvement plan (QIP) if an accumulation of exceedances or excursions exceeds 5 percent duration of either the dryer scrubber or the vent baghouse's operating time for a reporting period.
[40 CFR 64.8(a)]
- 8.30** In accordance with 40 CFR 64.9(a)(2), the reports required by the Semiannual Monitoring Reports and Reporting Deviations and Excess Emissions General Provisions shall include the following information for those emissions units listed in Tables 8.7 and 8.8.
- Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken.
 - Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).
- [40 CFR 64.9(a)(2)]
- 8.31** In accordance with 40 CFR 64.9(b), the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring or records of monitoring maintenance or corrective actions).
[40 CFR 64.9(b)]
- 8.32** Should there be a conflict between 40 CFR 64 and any of Permit Conditions 8.19 through 8.23 or 8.26 through 8.29 of this permit, the 40 CFR 64 shall govern.

9 Emissions Unit Group 6: Granulation No. 2 Process

Summary Description

The following is a narrative description of the Granulation No. 2 process regulated in this Tier I operating permit. This description is for informational purposes only.

Granulation No. 2 normally produces mono-ammonium phosphate (MAP, 11-52-0) and ammonium phosphate sulfate (16-20-0) granulated products. The Granulation No. 2 process involves reacting phosphoric acid with ammonia to produce ammonium phosphate or ammonium phosphate sulfate slurry in the reactor. The slurry is sprayed onto a product recycle stream in the granulator. Depending on the product, phosphoric acid or ammonia is added to the granulator at this time. The product from the granulator is transferred to the dryer where it is dried. A cyclone removes the larger dust particles entrained in the off-gases exiting the dryer. This dust collected by the cyclone returns directly to the recycle drag conveyer below the cyclone's outlet. Finer particles and gaseous pollutants are removed as they pass through the dryer Venturi scrubber.

Off-gases from both the reactor and granulator are combined in a common stream before passing through a high-mole spray scrubber separator and on to a low-mole scrubber. This air stream is combined with the air stream from the dryer venturi scrubber described below receives a final scrubbing in the Tailgas scrubber. Blowdown from the low-mole and high-mole scrubber is recycled back to the reactor.

The product stream is screened into three fractions: oversized, product, and fines. The fines report directly to the recycle drag conveyer while the oversize first passes through a cage mill where it is crushed before reporting to the recycle drag conveyer. A slip stream off the product stream undergoes a second screening (polishing screens) to further reduce the percentage of fines. The size of this stream is regulated by the motor amp draw on the granulator elevator. Fines from the polishing screen are returned to the granulator via the recycle drag conveyer. Dust from the screening process passes through the Granulation No. 2 vent baghouse dust collector where it is separated from the air. The dust removed in the baghouse is transported to the recycle drag conveyer by a screw conveyor.

The product stream is transferred to the rotary cooler, cooled, and then coated with wax for dust control before being sent out to the warehouse. The dust laden off-gas stream from the cooler passes through the cooler baghouse dust collector where the particulates are separated from the air. The dust removed in the baghouse is transported to the granulator via a screw conveyor that reports to the recycle drag conveyer. The cleaned air stream is then combined with the air off the dust baghouse and discharged to the atmosphere.

Table 9.1 describes the devices used to control emissions from Granulation No. 2 process.

Table 9.1 Granulation No. 2 Process Description

Source ID	Emissions Units / Processes	Control Devices	
450.0	Reactor	---	Tailgas scrubber/absorber
451.0	Granulator		
453.0	Dryer	Cyclone dust collector and Dryer venturi scrubber in series (primary function as process equipment)	
461.1	Recycle drag conveyor	Vent baghouse	
464.1	Screens		
464.2	Polishing screen		
465.1	Elevator to granulator		
466.1	Elevator to screens		
467.1	Product elevator		
470.3	Cooler	Cooler baghouse	
471.0	Product dump from overhead	Reasonable control of fugitive emissions (enclosure)	
472.0	Front-end loader operation		
473.0	Underground conveyor		
474.0	Elevator		
475.0	Crossover belt		
476.0	Bulking loadout		
477.0	Screens		

Table 9.2 contains only a summary of the requirements that apply to the Granulation No. 2 process. Specific permit requirements are listed below.

Table 9.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
9.1	PM	Process weight rate (all stacks combined)	IDAPA 58.01.01.702	9.7 - 9.9, 9.13, 9.19 – 9.32
9.2	PM/PM ₁₀	10.7 lb/hr, 46.9 T/yr (all stacks combined)	PTC No. P-2016.0055	9.7 - 9.9, 9.13, 9.19 – 9.32
9.3	Fluorides	6.8 lb/hr, 29.78 T/yr	PTC No. P-2016.0055	9.13 - 9.18
9.12		0.060 lb total fluoride/T equivalent P ₂ O ₅ feed (all stacks combined)	40 CFR 63.622(a)	
9.4	NO _x	1.69 lb/hr, 7.4 T/yr (all stacks combined)	PTC No. P-2016.0055	9.10
9.5	CO	0.41 lb/hr, 1.8 T/yr (all stacks combined)	PTC No. P-2016.0055	
9.6	SO ₂	0.0016 lb/hr, 0.007 T/yr (all stacks combined)	PTC No. P-2016.0055	

Emission Limits

9.1 PM Emission Limit

No person shall emit PM to the atmosphere from any process or process equipment commencing operating on or after October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in lb/hr, and PW is the process weight in lb/hr:

- If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.60}$$

- If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

[IDAPA 58.01.01.701, 4/5/00]

9.2 PM/PM₁₀ Emissions Limit

The emissions from the Granulation No. 2 plant (all stacks combined) shall not exceed any corresponding emissions rate limits listed in Table 9.3.

Table 9.3 Granulation No. 2 PM/PM₁₀ Emission Limits^(a)

Source Description	PM ₁₀ ^(b)	
	lb/hr ^(c)	T/yr ^(d)
Tailgas scrubber stack	10.7	46.9
Baghouse stack		

- 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.

[PTC No. P-2016.0055, 8/19/19]

9.3 Fluoride Emission Limit

Total fluoride emissions from the combined Granulation No. 2 process stacks shall not exceed 6.8 lb/hr and 29.78 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

9.4 NO_x Emission Limit

The NO_x emissions from the combined Granulation No. 2 process stacks shall not exceed 1.69 lb/hr, and shall not exceed 7.4 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

9.5 CO Emission Limit

The CO emissions from the combined Granulation No. 2 process stacks shall not exceed 0.41 lb/hr, and 1.8 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

9.6 SO₂ Emission Limit

The SO₂ emissions from the combined Granulation No. 2 process stacks shall not exceed 0.0016 lb/hr and 0.007 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

Operating Requirements

9.7 Scrubber Maintenance

Maintenance to the scrubbers and/or process maintenance shall be performed if visible emissions from the scrubber stacks exceed 15% opacity. A record of maintenance shall be maintained on site for the most recent five years and shall be made available to DEQ representatives upon request.

[PTC No. P-2016.0055, 8/19/19]

9.8 Baghouse Maintenance

Maintenance to the baghouse shall be performed if visible emissions from the baghouse stack exceed 10% opacity. A record of maintenance shall be maintained on site for the most recent five years and shall be made available to DEQ representatives upon request.

[PTC No. P-2016.0055, 8/19/19]

Monitoring, Compliance Tests, and Compliance Provisions

9.9 PM and PM₁₀ Compliance Test

The permittee shall conduct a compliance test to demonstrate compliance with hourly PM/PM₁₀ emissions limit in Permit Condition 9.2. The PM/PM₁₀ emissions shall be measured using EPA reference test methods 5 and 202, or methods 201A and 202, or DEQ approved alternatives.

Testing shall be performed according to the following schedule. If the pollutant emission rate measured in the most recent test is less than or equal to 75% of the emission limit, the next test shall be conducted within five years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission limit, the next test shall be conducted within two years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 90% of the emission limit, the next test shall be conducted within 13-months of the test date.

The permittee shall record the equivalent P₂O₅ feed rate to the process, the pressure drop across the baghouse, the pressure drop across each scrubber, and the flow rate of the scrubber liquid to each scrubber during compliance tests.

[PTC No. P-2016.0055, 8/19/19]

9.10 Natural Gas Dryer Usage

For the purposes of determining compliance with the short-term (lb/hr) and yearly (tons-per-year) emission limits for the pollutants NO_x, CO, and SO₂ in Permit Conditions 9.4 through 9.6, the permittee shall continuously monitor the amount of natural gas fired in the dryer. On a monthly basis, the permittee shall record the monthly natural gas consumption of the dryer, the monthly operating hours of the dryer, and the rolling 12-month natural gas usage.

[PTC No. P-2016.0055, 8/19/19]

9.11 Fugitive Emissions Compliance

Fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651.

[PTC No. P-2016.0055, 8/19/19]

40 CFR 63 Subpart BB – National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants

9.12 40 CFR 63 Subpart BB - § 63.622 Standards and compliance dates

In accordance with §63.622(a), for each existing phosphate fertilizer process line that commenced construction or reconstruction on or before December 27, 1996, the permittee must comply with the emission limit specified in Table 1 to this subpart. For an existing phosphate fertilizer process line, the permittee shall meet an emission limit for total fluorides of 0.060 lb/ton of equivalent P₂O₅ feed.

In accordance with §63.622(c), beginning on August 19, 2015, the permittee must not introduce into any evaporate cooling tower any liquid effluent from any absorber installed to control emissions from process equipment.

In accordance with §63.622(d), beginning on August 19, 2015, during periods of startup and shutdown (as defined in §63.621), the permittee must comply with the work practice specified in this paragraph in lieu of the emission limits specified in paragraph (a) of this section. During periods of startup and shutdown, the permittee must operate any control device(s) being used at the affected source, monitor the operating parameters specified in Table 3 of this subpart, and comply with the operating limits specified in Table 4 of this subpart.

[40 CFR 63.622 (a, c, d)]

9.13 40 CFR 63 Subpart BB - § 63.625 Operating and monitoring requirements

In accordance with §63.625(a), for each phosphate fertilizer process line (*e.g.*, diammonium and/or monoammonium phosphate process line), or granular triple superphosphate process line subject to the provisions of this subpart, the permittee must comply with the monitoring requirements specified in paragraphs (a)(1) and (2) of this section.

- (1) Install, calibrate, maintain, and operate a continuous monitoring system (CMS) according to your site-specific monitoring plan specified in §63.628(c). The CMS must have an accuracy of ±5 percent over its operating range and must determine and permanently record the mass flow of phosphorus-bearing material fed to the process.
- (2) Maintain a daily record of equivalent P₂O₅ feed. Calculate the equivalent P₂O₅ feed by determining the total mass rate in metric ton/hour of phosphorus bearing feed using the procedures specified in §63.626(f)(3).

In accordance with §63.625(d), if the permittee uses a control device(s) to comply with the emission limits specified in Table 1 or 2 of this subpart, the permittee must install a continuous parameter monitoring system (CPMS) and comply with the requirements specified in paragraphs (d)(1) through (4) of this section.

- (1) The permittee must monitor the operating parameter(s) applicable to the control device that you use as specified in Table 3 to this subpart and establish the applicable limit or range for the operating parameter limit as specified in paragraphs (d)(1)(i) and (ii) of this section, as applicable.
- (i) The permittee must monitor the operating parameter(s) applicable to the control device that you use as specified in Table 3 to this subpart and establish the applicable limit or range for the operating parameter limit as specified in paragraphs (d)(1)(i) and (ii) of this section, as applicable. Table 9.4 provides a summary of the applicable requirements in Table 3 of the subpart.

Table 9.4 Summary of Monitoring Equipment Monitoring Parameters

You must . . .	If . . .	And you must monitor . . .	And . . .
Install CPMS for liquid and gas flow at the inlet of the absorber ^(a)	Your absorber is designed and operated with pressure drops of 5 inches of water column or less; or Your absorber is designed and operated with pressure drops of 5 inches of water column or more, and you choose to monitor the liquid-to-gas ratio, rather than only the influent liquid flow, and you want the ability to lower liquid flow with changes in gas flow	Liquid-to-gas ratio as determined by dividing the influent liquid flow rate by the gas flow rate through the absorber. The units of measure must be consistent with those used to calculate this ratio during the performance test	You must determine the gas flow rate through the absorber by: Measuring the gas flow rate at the absorber inlet or outlet; Using the blower design capacity, with appropriate adjustments for pressure drop; ^(b) Or Using a regression model. ^(c)

a) For new sources that commence construction or reconstruction after August 19, 2015, the compliance date is immediately upon startup. For existing sources, and new sources that commence construction or reconstruction after December 27, 1996, and on or before August 19, 2015, if your absorber is designed and operated with pressure drops of 5 inches of water column or less, then the compliance date is August 19, 2018. In the interim, for existing sources, and new sources that commence construction or reconstruction after December 27, 1996, and on or before August 19, 2015, with an absorber designed and operated with pressure drops of 5 inches of water column or less, you must comply with one of the following: (i) The monitoring requirements in this Table 3 for absorbers designed and operated with pressure drops of 5 inches of water column or less; (ii) the applicable monitoring provisions included in a permit issued under 40 CFR part 70 to assure compliance with subpart BB; (iii) the applicable monitoring provisions of an Alternative Monitoring Plan approved pursuant to §63.8(f); or (iv) install CPMS for pressure at the gas stream inlet and outlet of the absorber, and monitor pressure drop through the absorber.

b) If you select this option, then you must comply with §63.628(e). The option to use blower design capacity is intended to establish the maximum possible gas flow through the absorber; and is available regardless of the location of the blower (influent or effluent), as long as the gas flow rate through the absorber can be established. Establish the minimum liquid-to-gas ratio operating limit by dividing the minimum liquid flow rate to the absorber (determined during a performance test) by the maximum possible gas flow rate through the absorber (determined using blower design capacity).

c) If you select this option, then you must comply with §63.628(f). The regression model must be developed using direct measurements of gas flow rate, and design fan curves that correlate gas flow rate to static pressure (*i.e.*, fan suction pressure) and brake horsepower of the blower. You must conduct an annual regression model verification using direct measurements of gas flow rate to ensure the correlation remains accurate. Direct measurements of gas flow rate used to develop or verify regression models may be collected during, or separately from, the annual performance testing that is required in §63.626(b).

(ii) If the permittee uses an absorber to comply with the emission limits in Table 1 or 2 to this subpart and you monitor pressure drop across the absorber, you must establish allowable ranges using the methodology specified in paragraphs (d)(1)(ii)(A) and (B) of this section.

(A) The allowable range for the daily averages of the pressure drop across an absorber and of the flow rate of the absorber liquid to each absorber in the process absorbing system, or secondary voltage for a wet electrostatic precipitator, is ± 20 percent of the baseline average value determined in paragraph (d)(1)(i) of this section. The Administrator retains the right to reduce the ± 20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ± 10 percent under any instance.

(B) As an alternative to paragraph (d)(1)(ii)(A) of this section, the permittee may establish allowable ranges for the daily averages of the pressure drop across an absorber for the purpose of assuring compliance with this subpart using the procedures described in this paragraph. The permittee must establish the allowable ranges based on the baseline average values recorded during previous performance tests or the results of performance tests conducted specifically for the purposes of this paragraph. The permittee must conduct all performance tests using the methods specified

in §63.626. The permittee must certify that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges. When a source using the methodology of this paragraph is retested, you must determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges.

- (2) The permittee must monitor, record, and demonstrate continuous compliance using the minimum frequencies specified in Table 4 to this subpart. Table 9.5 provides a summary of the applicable requirements in Table 4 of the subpart.

Table 9.5 Summary of Calibration and Quality Control Requirements for CPMS

For the operating parameter applicable to you, as specified in Table 3 . . .	You must establish the following operating limit during your performance test . . .	And you must monitor, record, and demonstrate continuous compliance using these minimum frequencies . . .		
		Data measurement	Data recording	Data averaging period for compliance
Absorbers (Wet Scrubbers)				
Influent liquid flow	Minimum inlet liquid flow	Continuous	Every 15 minutes	Daily
Pressure drop	Pressure drop range	Continuous	Every 15 minutes	Daily

- (3) The permittee must comply with the calibration and quality control requirements that are applicable to the operating parameter(s) you monitor as specified in Table 5 to this subpart. Table 9.6 provides a summary of the applicable requirements in Table 5 of the subpart.

Table 9.6 Summary of Calibration and Quality Control Requirements for CPMS

If you monitor this parameter . . .	Your accuracy requirements are . . .	And your calibration requirements are . . .
Flow Rate	<p>±5 percent over the normal range of flow measured or 1.9 liters per minute (0.5 gallons per minute), whichever is greater, for liquid flow rate.</p> <p>±5 percent over the normal range of flow measured or 28 liters per minute (10 cubic feet per minute), whichever is greater, for gas flow rate.</p> <p>±5 percent over the normal range measured for mass flow rate.</p>	<p>Performance evaluation annually and following any period of more than 24 hours throughout which the flow rate exceeded the maximum rated flow rate of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant flow sensor. Selection of a representative measurement location where swirling flow or abnormal velocity distributions due to upstream and downstream disturbances at the point of measurement are minimized.</p>
Pressure	<p>±5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater.</p>	<p>Checks for obstructions (e.g., pressure tap pluggage) at least once each process operating day.</p> <p>Performance evaluation annually and following any period of more than 24 hours throughout which the pressure exceeded the maximum rated pressure of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly.</p> <p>Visual inspection of all components for integrity, oxidation and galvanic corrosion</p>

If you monitor this parameter . . .	Your accuracy requirements are . . .	And your calibration requirements are . . .
		every 3 months, unless the CPMS has a redundant pressure sensor. Selection of a representative measurement location that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

- (4) If the permittee uses a fabric filter system to comply with the emission limits specified in Table 1 or 2 to this subpart, the system must meet the requirements for fabric filters specified in paragraph (e) of this section.

In accordance with §63.625(e), beginning August 19, 2016, if the permittee uses a fabric filter system to comply with the emission limits specified in Table 1 or 2 to this subpart, then the fabric filter must be equipped with a bag leak detection system that is installed, calibrated, maintained and continuously operated according to the requirements in paragraphs (e)(1) through (10) of this section.

- (1) Install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (*e.g.*, for a positive-pressure fabric filter) of the fabric filter.
- (2) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic feet) or less.
- (3) Use a bag leak detection system equipped with a device to continuously record the output signal from the system sensor.
- (4) Use a bag leak detection system equipped with a system that will trigger an alarm when an increase in relative particulate material emissions over a preset level is detected. The alarm must be located such that the alert is observed readily by plant operating personnel.
- (5) Install a bag leak detection system in each compartment or cell for positive-pressure fabric filter systems that do not duct all compartments or cells to a common stack. Install a bag leak detector downstream of the fabric filter if a negative-pressure or induced-air filter is used. If multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (6) Calibration of the bag leak detection system must, at a minimum, consist of establishing the baseline output level by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.
- (7) After initial adjustment, the permittee must not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time, except as established in your site-specific monitoring plan required in §63.628(c). In no event may the sensitivity be increased more than 100 percent or decreased by more than 50 percent over a 365-day period unless such adjustment follows a complete inspection of the fabric filter system that demonstrates that the system is in good operating condition.

- (8) Operate and maintain each fabric filter and bag leak detection system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. If the alarm sounds more than 5 percent of the operating time during a 6-month period, it is considered an operating parameter exceedance. Calculate the alarm time (*i.e.*, time that the alarm sounds) as specified in paragraphs (e)(8)(i) through (iii) of this section.
 - (i) If inspection of the fabric filter demonstrates that corrective action is not required, the alarm duration is not counted in the alarm time calculation.
 - (ii) If corrective action is required, each alarm time is counted as a minimum of 1 hour.
 - (iii) If it takes longer than 1 hour to initiate corrective action, each alarm time (*i.e.*, time that the alarm sounds) is counted as the actual amount of time taken by you to initiate corrective action.
- (9) If the alarm on a bag leak detection system is triggered, you must initiate procedures within 1 hour of an alarm to identify the cause of the alarm and then initiate corrective action, as specified in §63.628(d)(2), no later than 48 hours after an alarm. Failure to take these actions within the prescribed time periods is considered a violation.
- (10) Retain records of any bag leak detection system alarm, including the date, time, duration, and the percent of the total operating time during each 6-month period that the alarm triggers, with a brief explanation of the cause of the alarm, the corrective action taken, and the schedule and duration of the corrective action.

[40 CFR 63.625 (a, d)]

9.14 40 CFR 63 Subpart BB - § 63.626 Performance tests and compliance provisions

In accordance with §63.626(b), after the permittee conducts the initial performance test specified in paragraph (a) of this section, the permittee must conduct a performance test once per calendar year.

In accordance with §63.626(d),

- (1) The permittee must conduct the performance tests specified in this section at representative (normal) conditions for the process. Representative (normal) conditions means those conditions that:
 - (i) Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and
 - (ii) Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition.
- (2) Operations during startup, shutdown, and malfunction do not constitute representative (normal) operating conditions for purposes of conducting a performance test. The permittee must record the process information that is necessary to document the operating conditions during the test and include in such record an explanation to support that such conditions represent representative (normal) conditions. Upon request, the permittee must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

In accordance with §63.626(e), in conducting all performance tests, the permittee must use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in §63.7(f).

In accordance with §63.626(f), for each phosphate fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line), and granular triple superphosphate process line, the permittee must determine compliance with the applicable total fluorides standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (f)(1) through (3) of this section.

- (1) Compute the emission rate (E) of total fluorides for each run using Equation BB-1:

$$E = \left(\sum_{i=1}^N C_i Q_i \right) / (PK) \quad (\text{Eq. BB-1})$$

Where:

E = Emission rate of total fluorides, gram/metric ton (pound/ton) of equivalent P₂O₅ feed.

C_i = Concentration of total fluorides from emission point “i,” milligram/dry standard cubic meter (milligram/dry standard cubic feet).

Q_i = Volumetric flow rate of effluent gas from emission point “i,” dry standard cubic meter/hour (dry standard cubic feet/hour).

N = Number of emission points associated with the affected facility.

P = Equivalent P₂O₅ feed rate, metric ton/hour (ton/hour).

K = Conversion factor, 1000 milligram/gram (453,600 milligram/pound).

- (2) The permittee must use Method 13A or 13B (40 CFR part 60, appendix A) to determine the total fluorides concentration (C_i) and the volumetric flow rate (Q_i) of the effluent gas at each emission point. The sampling time for each run at each emission point must be at least 60 minutes. The sampling volume for each run at each emission point must be at least 0.85 dscm (30 dscf). If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4 in Method 13 A, may be omitted.

- (3) Compute the equivalent P₂O₅ feed rate (P) using Equation BB-2:

$$P = M_p R_p \quad (\text{Eq. BB-2})$$

Where:

P = P₂O₅ feed rate, metric ton/hour (ton/hour).

M_p = Total mass flow rate of phosphorus-bearing feed, metric ton/hour (ton/hour).

R_p = P₂O₅ content, decimal fraction.

- (i) Determine the mass flow rate (M_p) of the phosphorus-bearing feed using the measurement system described in §63.625(a).

- (ii) Determine the P_2O_5 content (Rp) of the feed using, as appropriate, the following methods specified in the Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists (incorporated by reference, see §63.14) where applicable:
 - (A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.
 - (B) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus- P_2O_5 or $Ca_3(PO_4)_2$, Method A—Volumetric Method.
 - (C) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus- P_2O_5 or $Ca_3(PO_4)_2$, Method B—Gravimetric Quimociac Method.
 - (D) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus- P_2O_5 or $Ca_3(PO_4)_2$, Method C—Spectrophotometric Method.
 - (E) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus- P_2O_5 , Method A—Volumetric Method.
 - (F) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus- P_2O_5 , Method B—Gravimetric Quimociac Method.
 - (G) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus- P_2O_5 , Method C—Spectrophotometric Method.

In accordance with §63.626(h), if the permittee uses a CMS, you must conduct a performance evaluation, as specified in §63.8(e), in accordance with your site-specific monitoring plan in §63.628(c). For fabric filters, the permittee must conduct a performance evaluation of the bag leak detection system consistent with the guidance provided in Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see §63.14). The permittee must record the sensitivity of the bag leak detection system to detecting changes in particulate matter emissions, range, averaging period, and alarm set points during the performance test.

[40 CFR 63.626 (b, d-f, h)]

9.15 40 CFR 63 Subpart BB - § 63.627 Notification, recordkeeping, and reporting requirements

In accordance with §63.627(a), the permittee must comply with the notification requirements specified in §63.9. During the most recent performance test, if you demonstrate compliance with the emission limit while operating your control device outside the previously established operating limit, you must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test. When a source is retested and the performance test results are submitted to the Administrator pursuant to paragraph (b)(1) of this section, §63.7(g)(1), or §63.10(d)(2), you must indicate whether the operating limit is based on the new performance test or the previously established limit. Upon establishment of a new operating limit, you must thereafter operate under the new operating limit. If the Administrator determines that you did not conduct the compliance test in accordance with the applicable requirements or that the operating limit established during the performance test does not correspond to representative (normal) conditions, you must conduct a new performance test and establish a new operating limit.

In accordance with §63.627(b), the permittee must comply with the reporting and recordkeeping requirements in §63.10 as specified in paragraphs (b)(1) through (5) of this section.

- (1) The permittee must comply with the general recordkeeping requirements in §63.10(b)(1); and
- (2) As required by §63.10(d), the permittee must report the results of the initial and subsequent performance tests as part of the notification of compliance status required in §63.9(h). You must verify in the performance test reports that the operating limits for each process have not changed or provide documentation of revised operating limits established according to §63.625, as applicable. In the notification of compliance status, you must also:
 - (i) Certify to the Administrator that you have not shipped fresh granular triple superphosphate from an affected facility.
 - (ii) Certify to the Administrator annually that you have complied with the evaporative cooling tower requirements specified in §63.622(c).
 - (iii) Submit analyses and supporting documentation demonstrating conformance with the Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see §63.14) and specifications for bag leak detection systems as part of the notification of compliance status report.
 - (iv) If you elect to demonstrate compliance by following the procedures in §63.625(d)(1)(ii)(B), certify to the Administrator annually that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges.
- (3) As required by §63.10(e)(1), the permittee must submit an excess emissions report for any exceedance of an emission or operating parameter limit if the total duration of the exceedances for the reporting period is 1 percent of the total operating time for the reporting period or greater. The report must contain the information specified in §63.10 and paragraph (b)(4) of this section. When exceedances of an emission limit or operating parameter have not occurred, you must include such information in the report. The permittee must submit the report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, you must submit the excess emissions report quarterly until a request to reduce reporting frequency is approved as described in §63.10(e)(3).
- (4) In the event that an affected unit fails to meet an applicable standard, record and report the following information for each failure:
 - (i) The date, time and duration of the failure.
 - (ii) A list of the affected sources or equipment for which a failure occurred.
 - (iii) An estimate of the volume of each regulated pollutant emitted over any emission limit.
 - (iv) A description of the method used to estimate the emissions.
 - (v) A record of actions taken to minimize emissions in accordance with §63.628(b), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

- (5) The permittee must submit a summary report containing the information specified in §63.10(e)(3)(vi). The permittee must submit the summary report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half.

In accordance with §63.627(c), the permittee's records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on site, or accessible from a central location by computer or other means that instantly provide access at the site, for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

In accordance with §63.627(d), in computing averages to determine compliance with this subpart, the permittee must exclude the monitoring data specified in paragraphs (d)(1) through (3) of this section.

- (1) Periods of non-operation of the process unit;
- (2) Periods of no flow to a control device; and
- (3) Any monitoring data recorded during continuous parameter monitoring system (CPMS) breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable), and high-level adjustments.

In accordance with §63.627(e), within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, the permittee must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (e)(1) or (2) of this section.

- (1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<http://www.epa.gov/ttn/chief/ert/index.html>), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (http://cdx.epa.gov/epa_home.asp). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.
- (2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

[40 CFR 63.627 (a-e)]

9.16 40 CFR 63 Subpart BB - § 63.628 General requirements and applicability of general provisions of this part

In accordance with §63.628(a), the permittee must comply with the general provisions in subpart A of this part as specified in appendix A to this subpart.

In accordance with §63.628(b), at all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination by the Administrator of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

In accordance with §63.628(c), for each CMS used to demonstrate compliance with any applicable emission limit, the permittee must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan according to the requirements specified in paragraphs (c)(1) through (3) of this section. The permittee must submit the site-specific monitoring plan, if requested by the Administrator, at least 60 days before the initial performance evaluation of the CMS. The requirements of this paragraph also apply if a petition is made to the Administrator for alternative monitoring parameters under §63.8(f).

- (1) The permittee must include the information specified in paragraphs (c)(1)(i) through (vi) of this section in the site-specific monitoring plan.
 - (i) Location of the CMS sampling probe or other interface. The permittee must include a justification demonstrating that the sampling probe or other interface is at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).
 - (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.
 - (iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).
 - (iv) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and Table 4 to this subpart.
 - (v) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), (e)(2)(i).
- (2) The permittee must include a schedule for conducting initial and subsequent performance evaluations in the site-specific monitoring plan.
- (3) The permittee must keep the site-specific monitoring plan on site for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If you revise the site-specific monitoring plan, you must keep previous (i.e., superseded) versions of the plan on site to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.

You must include the program of corrective action required under §63.8(d)(2) in the plan.

In accordance with §63.628(d), for each bag leak detection system installed to comply with the requirements specified in §63.625(e), the permittee must include the information specified in paragraphs (d)(1) and (2) of this section in the site-specific monitoring plan specified in paragraph (c) of this section.

- (1) Performance evaluation procedures and acceptance criteria (e.g., calibrations), including how the alarm set-point will be established.
- (2) A corrective action plan describing corrective actions to be taken and the timing of those actions when the bag leak detection alarm sounds. Corrective actions may include, but are not limited to, the actions specified in paragraphs (d)(2)(i) through (vi) of this section.

In accordance with §63.628(e), if the permittee uses blower design capacity to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio as specified in Table 3 to this subpart, then you must include in the site-specific monitoring plan specified in paragraph (c) of this section calculations showing how you determined the maximum possible gas flow rate through the absorber based on the blower's specifications (including any adjustments you made for pressure drop).

[40 CFR 63.628 (a-e)]

9.17 40 CFR 63 Subpart BB - § 63.631 Exemption from new source performance standards

In accordance with §63.631, any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart V, subpart W, or subpart X. To be exempt, a source must have a current operating permit pursuant to title V of the Clean Air Act and the source must be in compliance with all requirements of this subpart.

For each affected source, this exemption is upon the date that you demonstrate to the Administrator that the requirements of §§63.625 and 63.626 have been met.

[40 CFR 63.631]

9.18 40 CFR 63 Subpart BB - § 63.632 Implementation and enforcement

In accordance with §63.632(a), this subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable state, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a state, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a state, local, or Tribal agency.

In accordance with §63.632(b), the authorities specified in paragraphs (b)(1) through (5) of this section are retained by the Administrator of U.S. EPA and cannot be delegated to State, local, or Tribal agencies.

- (1) Approval of alternatives to the requirements in §§63.620, 63.622, 63.625, 63.629, and 63.631.
- (2) Approval of requests under §§63.7(e)(2)(ii) and 63.7 (f) for alternative requirements or major changes to the test methods specified in this subpart, as defined in §63.90.

- (3) Approval of requests under §63.8(f) for alternative requirements or major changes to the monitoring requirements specified in this subpart, as defined in §63.90.
- (4) Waiver or approval of requests under §63.10(f) for alternative requirements or major changes to the recordkeeping and reporting requirements specified in this subpart, as defined in §63.90.
- (5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

[40 CFR 63.632]

40 CFR 64 – Compliance Assurance Monitoring (CAM)

- 9.19** The purpose of this section of the permit is to include all of the applicable requirements of 40 CFR 64, “Compliance Assurance Monitoring” (CAM). CAM requires selecting compliance indicators that when operated within specified ranges provide a reasonable assurance of compliance. CAM also requires monitoring, record keeping, and reporting requirements.
- 9.20** Table 9.7 lists the emissions unit and pollutants that are applicable to CAM and details the monitoring requirements for each emissions unit which the permittee shall comply with. The table also specifies the specific values that are approved to determine when an excursion has occurred.
- Emissions Unit: Tail Gas Scrubber
 - Regulated Pollutants: PM/PM₁₀
 - Emission Limit: 10.7 lb/hr (all stacks combined)

Table 9.7 Compliance Assurance Monitoring Requirements for the Tail Gas Scrubber

Requirement	Indicator No. 1	Indicator No. 2
Indicator	Scrubber Liquid Flow Rate	Scrubber Pressure Drop
Measurement Approach	The liquid flow rate is monitored with a flow meter.	The pressure drop is monitored with a differential pressure gauge.
Indicator Range	An excursion ^(a) is defined as a scrubber water flow of less than 500 gpm and greater than 750 gpm.	An excursion ^(a) is defined as a pressure drop of less than 0.5 inches of water or greater than 1.5 inches of water.
Performance criteria Data Representativeness	A liquid flow meter is used to monitor the liquid flow rate at the liquid influent line upstream of the scrubber.	The monitoring system consists of a differential pressure gauge which measures the pressure drop across the scrubber. Pressure taps are located at the upstream and downstream side of the scrubber packing.
QA/QC Practices	The flow meter is calibrated annually.	The differential gauge is calibrated annually.
Monitoring Frequency	The scrubber liquid flow is measured continuously.	The pressure drop across the scrubber is measured continuously.
Data Collection Procedure	The scrubber liquid flow is electronically recorded and stored in a data historian.	The pressure drop is electronically recorded and stored in a data historian.
Averaging Period	Daily average	Daily average

a) Excursion is defined in 40 CFR 64 as a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

- 9.21** Table 9.8 lists the emissions unit and pollutants that are applicable to CAM and details the monitoring requirements for each emissions unit which the permittee shall comply with. The table also specifies the specific values that are approved to determine when an excursion has occurred.
- Emissions Unit: Vent Baghouse and Cooler Baghouse
 - Regulated Pollutants: PM/PM₁₀
 - Emission Limit: 10.7 lb/hr (all stacks combined)

Table 9.8 Compliance Assurance Monitoring Requirements for the Vent Baghouse and Cooler Baghouse

Requirement	Indicator No. 1
Indicator	Opacity Reading
Measurement Approach	Visible emissions from the baghouse exhaust will be monitored daily using a see/no see evaluation procedure.
Indicator Range	An excursion ^(a) is defined as the presence of visible emissions. An excursion shall trigger an inspection, corrective action, and reporting requirements.
Performance criteria Data Representativeness	Measurements will be made at the emission point of the Vent Baghouse and Cooler Baghouse stack.
QA/QC Practices	The observer will be familiar with see/no see procedure.
Monitoring Frequency	A visible emissions observation will be performed daily.
Data Collection Procedure	The visible emissions observation is documented by the observer.
Averaging Period	None

a) Excursion is defined in 40 CFR 64 as a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

CAM Recordkeeping

- 9.22** In accordance with 40 CFR 64.7(a), the permittee shall conduct the monitoring required under this permit upon issuance. **[40 CFR 64.7(a)]**
- 9.23** In accordance with 40 CFR 64.7(b), at all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **[40 CFR 64.7(b)]**
- 9.24** In accordance with 40 CFR 64.7(c)-except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments)-the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the tail gas scrubber, vent baghouse, and cooler baghouse are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of CAM, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **[40 CFR 64.7(c)]**
- 9.25** In accordance with 40 CFR 64.7(d), upon detecting an excursion or exceedance, the permittee shall restore operation of the emissions unit(s) (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. **[40 CFR 64.7(d)]**

- 9.26** In accordance with 40 CFR 64.3(b), for the description of the control device(s) (e.g., multiclone in series with a wet scrubber and cyclone separator), if the manufacturer specifications for the monitoring devices for indicator 1 (e.g., pressure drop) and indicator 2 (e.g., scrubbing media flow rate) include calibration procedures but do not specify a calibration frequency, the device shall be calibrated at least once each calendar year.
- [40 CFR 64.3(b)(1), (2), and (3)]**
- 9.27** In accordance with 40 CFR 64.6(c)(2), an excursion shall be defined as any measured monitoring parameter which is outside the indicator ranges specified for the emissions units in Tables 9.7 and 9.8.
- [40 CFR 64.6(c)(2)]**
- 9.28** In accordance with 40 CFR 64.7(e), if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to this operating permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
- [40 CFR 64.7(e)]**
- 9.29** In accordance with 40 CFR 64.8(a), the permittee shall develop and implement a quality improvement plan (QIP) if an accumulation of exceedances or excursions exceeds 5 percent duration of either the tail gas scrubber, the vent baghouse, or the cooler baghouse's operating time for a reporting period.
- [40 CFR 64.8(a)]**
- 9.30** In accordance with 40 CFR 64.9(a)(2), the reports required by the Semiannual Monitoring Reports and Reporting Deviations and Excess Emissions General Provisions shall include the following information for those emissions units listed in Tables 9.7 and 9.8.
- Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken.
 - Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).
- [40 CFR 64.9(a)(2)]**
- 9.31** In accordance with 40 CFR 64.9(b), the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring or records of monitoring maintenance or corrective actions).
- [40 CFR 64.9(b)]**
- 9.32** Should there be a conflict between 40 CFR 64 and any of Permit Conditions 9.19 through 9.23 or 9.26 through 9.29 of this permit, the 40 CFR 64 shall govern.

10 Emissions Unit Group 7: Granulation No. 3 Process, East Bulking Station, and Defluorination Process

Summary Description

The following is a narrative description of the Granulation No. 3 process regulated in this Tier I operating permit. This description is for informational purposes only.

The Granulation No. 3 process can produce low fluoride, mono-calcium phosphate ($\text{Ca}(\text{H}_2\text{PO}_4)_2 \cdot \text{H}_2\text{O}$) product, di-calcium phosphate ($\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$) product, or triple superphosphate (TSP, 0-45-0). For Monocalcium phosphate product or Dicalcium phosphate product, low fluoride phosphoric acid from the de-fluorination process is used. For triple superphosphate (0-45-0,) 42% acid from the adjacent phosphoric acid plant is used. The Granulation No. 3 process is not capable of making diammonium and/or monoammonium phosphate by introducing ammonia into the process.

Defluorination process – Low fluoride phosphoric acid used to make low fluoride, mono-calcium phosphate product or dicalcium phosphate product is produced in two batch defluorination reactors by heating the phosphoric acid in the defluorination reactor tank and then adding diatomaceous earth as a silica source. The fluoride in the phosphoric acid volatilizes as silica tetrafluoride. A crossflow defluorination scrubber is used to control emissions from this process. Emissions from diatomaceous earth silo are controlled by a baghouse, which is vented to the atmosphere.

The Granulation No. 3 process Phosphoric acid is reacted with dry fed ground limestone in the mixer and blunger to produce calcium phosphate slurry. The calcium phosphate slurry is then added to recycled granules before being fed to the dryer. The dried granules are screened into three sizes: product, oversize, and fines. A portion of the product size is sent to the storage area for shipping while the remainder is recycled through the system with the fines and crushed oversize material.

Emissions from the mixer and blunger are controlled by the Entoleter scrubber. Emissions from the limestone bins are controlled by the limestone baghouse. Emissions from the dryer are controlled by a cyclone following the Entoleter scrubber. Emissions from the screening process are controlled by the material handling baghouse. The gases from the Entoleter scrubber, material handling baghouse, and the defluorination scrubber are exhausted through the Granulation No. 3 stack.

East Dry Bulking Station - Granulation No.3 Loadout is used to loadout triple superphosphate and livestock feed supplement into train cars and trucks for transport out of the facility. The only appreciable opening is the loadout bays, which must remain open to the atmosphere, allowing rail cars and trucks to enter and exit the bays.

Table 10.1 describes the devices used to control emissions from the Granulation No. 3 process.

Table 10.1 Granulation No. 3 Process Description

Source ID	Emissions Units / Processes	Control Devices	
700.0	Mixer	---	Entoleter scrubber
703.0	Blunger		
720.0	Dryer	Cyclone	
	Two batch defluorination reactors	Defluorination scrubber	
708.2	Screens	Material Handling Baghouse	
708.3	Rotex screen (Conveyors)		
709.1	Fines loadout (Recycle Drag)		
710.1	Production elevator (screen feed elevator)		
712.1	Reject elevator		
	Reject Hopper		
705.0	Limestone bins	Limestone baghouse	
	Diatomaceous earth silo	Diatomaceous earth baghouse ^(a)	
750.0	Conveying	Reasonable control of fugitive emissions	
751.0	Conveyor drop		
752.0	Front-end loader operations		
753.0	Bulking elevator		
754.0	Crossover belt		
755.0	East dry-bulking		
770.0	Conveying		
771.0	Conveyor drop		
772.0	Front-end loader operations		
773.0	Bulking elevator		
774.0	Crossover belt		

a) A side stream of air from the baghouse will be used to strip fluoride from the hot treated acid. The fluoride enriched air stream from the reactors will then be scrubbed in the Defluorination Scrubber.

Table 10.2 contains only a summary of the requirements that apply to the Granulation No. 3 process. Specific permit requirements are listed below.

Table 10.2 Applicable Requirements Summary

Permit Conditions	Affected Emission Unit/Point	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
10.1	Granulation No. 3 stack	PM	7.0 lb/hr, 30.7 T/yr	PTC No. P-2016.0055	10.10 – 10.16, 10.18, 10.23 – 10.38
10.2	Diatomaceous earth silo baghouse stack		Process weight rate	IDAPA 58.01.01.701	10.13, 10.23
	Limestone bins baghouse stack		10.14		
	East dry-bulking station		10.12, 10.23		
	Granulation No. 3 stack		10.10 – 10.16, 10.18, 10.23 – 10.38		
10.3	Granulation No. 3 stack	PM ₁₀	5.7 lb/hr, 25.0 T/yr	PTC No. P-2016.0055	10.10 – 10.16, 10.18, 10.23 – 10.25, 10.27 – 10.38
10.4	Diatomaceous earth baghouse stack		0.28 lb/hr, 1.2 T/yr	PTC No. P-2016.0055	10.11, 10.13
10.5	Granulation No. 3 stack	Total fluorides	1.28 lb/hr, 5.63 T/yr	PTC No. P-2016.0055	10.10, 10.11, 10.13, 10.16, 10.18, 10.23 – 10.25, 10.27 – 10.38
10.6	Granulation No. 3 stack	NO _x	3.4 lb/hr, 14.9 T/yr	PTC No. P-2016.0055	10.15, 10.20, 10.23
10.7		SO ₂	0.02 lb/hr, 0.09 T/yr	PTC No. P-2016.0055	
10.8		CO	2.9 lb/hr, 12.7 T/yr	PTC No. P-2016.0055	
10.9		VOC	0.2 lb/hr, 0.9 T/yr	PTC No. P-2016.0055	

Emission Limits

10.1 PM Emission Limits

The PM emissions from the Granulation No. 3 stack shall not exceed 7.0 lb/hr and 30.7 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

10.2 PM Emission Limit

No person shall emit PM to the atmosphere from any process or process equipment commencing operating on or after October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in lb/hr, and PW is the process weight in lb/hr:

- If PW is less than 9,250 lb/hr,

$$E = 0.045(PW)^{0.60}$$
- If PW is equal to or greater than 9,250 lb/hr,

$$E = 1.10(PW)^{0.25}$$

[IDAPA 58.01.01.701, 4/5/00]

10.3 PM₁₀ Emission Limit

The PM₁₀ emissions from the Granulation No. 3 stack shall not exceed 5.7 lb/hr and 25.0 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

10.4 Baghouse PM₁₀ Emission Limit

The PM₁₀ emission from the diatomaceous earth baghouse shall not exceed 0.28 lb/hr, as determined by a pollutant-specific U.S. EPA reference method or DEQ-approved alternative, and 1.2 T/yr as determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the allowable hours per year that the processes may operate(s), or by actual annual production rates.

[PTC No. P-2016.0055, 8/19/19]

10.5 Fluoride Emission Limit

Total fluoride emissions from the Granulation No. 3 stack shall not exceed 1.28 lb/hr and 5.63 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

10.6 NO_x Emission Limit

The NO_x emissions from the Granulation No. 3 stack shall not exceed 3.4 lb/hr and 14.9 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

10.7 SO₂ Emission Limit

The SO₂ emissions from the Granulation No. 3 stack shall not exceed 0.02 lb/hr and 0.09 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

10.8 CO Emission Limit

The CO emissions from the Granulation No. 3 stack shall not exceed 2.9 lb/hr and 12.7 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

10.9 VOC Emission Limit

The VOC emissions from the Granulation No. 3 stack shall not exceed 0.2 lb/hr and 0.9 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

Operating Requirements

10.10 Maximum Operating Rate

The maximum allowable operating rate to Granulation No. 3 process, measured in tons of P₂O₅ equivalent feed per hour, shall be limited to 120% of the average operating rate attained during any compliance test period for which a test protocol has been granted prior to approval by DEQ; unless (1) the test demonstrates noncompliance, (2) a more restrictive operating limit is specified elsewhere in this permit, or (3) at such an operating rate, emissions would exceed any emission limit(s) set forth in this permit.

[PTC No. P-2016.0055, 8/19/19]

10.11 Throughput Limit to Defluorination Process

The maximum monthly throughput of P₂O₅ to the defluorination process shall not exceed 6,250 T/month. The maximum annual throughput of P₂O₅ to the process shall not exceed 75,000 T/yr.

[PTC No. P-2016.0055, 8/19/19]

10.12 Throughput Limit of Livestock Feed and TSP

The maximum throughput of the livestock feed and TSP through the east dry-bulking station shall not exceed 9,600 T/day and 3,504,000 T/yr.

[PTC No. 077-00006, 9/13/95]

10.13 O&M Manuals

The permittee shall have developed an O&M manual for the material handling baghouse and wet scrubber system and the defluorination scrubber and diatomaceous earth baghouse that describes the procedures that will be followed to comply with General Provision 13.2 of P-2016.0055 which states that 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.

The respective pressure drop across the material handling baghouse for the Granulation No. 3 process and Diatomaceous earth baghouse for the defluorination process and the respective pressure drop and the liquid flow rate of the Entoleter wet scrubber and Defluorination scrubber shall be maintained within O&M manual specifications. Documentation of the above operating parameters shall remain on site at all times and shall be made available to DEQ representatives upon request.

The permittee shall have submitted an updated O&M Manual for the Granulation No. 3 Entoleter scrubber, which includes the provisions that the fresh water flow to the scrubber does not drop below 10 gpm while producing Monocalcium Phosphate (21 P) and Dicalcium Phosphate (18.5P), that the fresh water flow to the scrubber does not drop below 32 gpm while producing triple superphosphate (0-45-0), that the total scrubber flow does not drop below 600 gpm, and that the scrubber duct spray water flow does not drop below 250 gpm, all determined based upon daily averaging of data collected during operations on approximately four hour intervals.

[PTC No. P-2016.0055, 8/19/19]

10.14 Limestone Baghouse

Particulate emissions from the limestone bins shall be controlled by the limestone baghouse.

[PTC No. P-2016.0055, 8/19/19]

10.15 Fuel Restriction

The dryer of granulation No. 3 process, with a maximum rated heat input capacity of 35 MMBtu/hr (determined on a 24-hour rolling average), shall burn only natural gas as fuel.

[PTC No. P-2016.0055, 8/19/19]

10.16 Scrubber Maintenance

Maintenance to the scrubbers (i.e., Entoleter scrubber and defluorination scrubber,) process equipment, and/or material handling baghouse shall be performed if visible emissions from the Granulation No. 3 plant stack exceed 15% opacity.

[PTC No. P-2016.0055, 8/19/19]

10.17 Air Pollution Emergency Rules

The permittee shall comply with the Air Pollution Emergency Rules in IDAPA 58.01.01.550 through 562.

[PTC No. P-2016.0055, 8/19/19]

Performance Tests and Compliance Procedures

10.18 Fluoride Performance Test

The permittee shall conduct fluoride performance testing on the Granulation No. 3 plant stack. Emissions shall be measured using EPA Reference Methods 13A or 13B, or a DEQ approved alternative.

Testing shall be performed according to the following schedule. If the pollutant emission rate measured in the most recent test is less than or equal to 75% of the emission limit, the next test shall be conducted within five years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission limit, the next test shall be conducted within two years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 90% of the emission limit, the next test shall be conducted within 13-months of the test date.

The following shall be monitored and recorded during each compliance test:

- For each fluoride performance test, all process areas which emit fluoride emissions out the Granulation No. 3 stack shall be in operation. Production throughput for each process area shall also be monitored and recorded for each performance test run in addition to the throughput in pounds per hour to the defluorination process.
- The pressure drop across the Entoleter wet scrubber
- The liquid flow rate through the Entoleter wet scrubber
- The fresh water flow to the Entoleter wet scrubber
- The duct spray water flow of the Entoleter wet scrubber
- The pressure drop across the defluorination scrubber
- The liquid flow rate through the defluorination scrubber
- The pressure drop across the material handling baghouse.

The feed rate, in tons of P_2O_5 equivalent per hour, to the Granulation No. 3 plant shall be recorded during each compliance test. The permittee shall determine the rate of equivalent P_2O_5 feed by first determining the mass rate in tons per hour of phosphorus-bearing feed, then multiplying the phosphorus bearing feed rate by the decimal fraction of P_2O_5 content.

[PTC No. P-2016.0055, 8/19/19]

10.19 PM/PM₁₀ Performance Test

The permittee shall conduct PM and PM₁₀ performance testing on the Granulation No. 3 plant stack. PM emissions shall be measured using EPA Reference Method 5. PM₁₀ emissions shall be measured using EPA Reference Methods 5 and 202, or Methods 201A and 202, or a DEQ approved alternative.

For emissions limits of PM and PM₁₀, if the pollutant emission rate measured in the most recent test is less than or equal to 75% of the emission limit, the next test shall be conducted within five years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission limit, the next test shall be conducted within two years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 90% of the emission limit, the next test shall be conducted within 13-months of the test date.

[PTC No. P-2016.0055, 8/19/19]

10.20 Natural Gas Dryer Usage

To demonstrate compliance with annual NO_x, CO, SO₂, and VOC emissions limits, the permittee shall continuously monitor the amount of natural gas fired in the dryer. On a monthly basis, the permittee shall record the natural gas consumption of the dryer, the operating hours of the dryer, and the rolling 12-month natural gas usage.

[PTC No. P-2016.0055, 8/19/19]

10.21 Fugitive Emissions

Fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651.

[PTC No. P-2016.0055, 8/19/19]

10.22 Fugitive Emission Inspection

The permittee shall conduct a weekly plant-wide fugitive emission inspection of potential sources of fugitive emissions, during daylight hours and under normal operating conditions, to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable.

[PTC No. P-2016.0055, 8/19/19]

10.23 Monitoring Operating Parameters

The permittee shall monitor and record the following information:

- The feed rate of P₂O₅ equivalent to the Granulation No. 3 plant, in tons per hour, and tons per rolling 12-month period on a monthly basis.
- The throughput of P₂O₅ to the defluorination process for that month and for the previous rolling 12-month period on a monthly basis.
- The pressure drop across the material handling baghouse of the Granulation No.3 plant, pressure drop across the Entoleter scrubber, and liquid flow rate through the Entoleter scrubber on a daily basis.
- The rolling 24-hour average heat input of natural gas to the dryer of Granulation No.3 Process in MMBtu per hour.
- The throughput of triple superphosphate and livestock feed through the east dry-bulking station on both a daily and annual basis. The permittee shall record the operating hours on a daily basis. The permittee shall calculate the daily average hourly emission rate. All records shall be maintained on site for five years and shall be made available to DEQ representatives upon request.
- The pressure drop across the diatomaceous earth baghouse, once daily when in operation.
- The pressure drop across the defluorination scrubber, once daily when in operation.

- The liquid flowrate of the defluorination scrubber, once daily when in operation.
[PTC No. P-2016.0055, 8/19/19]

40 CFR 64 – Compliance Assurance Monitoring (CAM)

10.24 The purpose of this section of the permit is to include all of the applicable requirements of 40 CFR 64, “Compliance Assurance Monitoring” (CAM). CAM requires selecting compliance indicators that when operated within specified ranges provide a reasonable assurance of compliance. CAM also requires monitoring, record keeping, and reporting requirements.

10.25 Table 10.3 lists the emissions unit and pollutants that are applicable to CAM and details the monitoring requirements for each emissions unit which the permittee shall comply with. The table also specifies the specific values that are approved to determine when an excursion has occurred.

- Emissions Unit: Entoleter Scrubber
- Regulated Pollutants: PM, PM₁₀, and Fluoride
- Emission Limits: PM 7.0 lb/hr, PM₁₀ 5.7 lb/hr, Fluoride 1.28 lb/hr

Table 10.3 Compliance Assurance Monitoring Requirements for the Entoleter Scrubber

Requirement	Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4
Indicator	Scrubber Pressure Drop	Scrubber Liquid Flow Rate (Total)	Scrubber Fresh Water or Well Extraction Water Flow Rate	Scrubber Duct Spray Water Flow Rate
Measurement Approach	The pressure drop is monitored with a differential pressure gauge.	The liquid flow rate is monitored with a flow meter.	The fresh water or well extraction water flow rate is monitored with a flow meter.	The liquid flow rate is monitored with a flow meter.
Indicator Range	An excursion ^(a) is defined as a pressure drop of less than 5 inches of water or greater than 27 inches of water.	An excursion ^(a) is defined as a total scrubber liquid flow of less than 580 gpm or greater than 823 gpm.	An excursion ^(a) is defined as water flow less than 20 gpm while producing 21 P and 18.5 P and less than 32 gpm while producing triple superphosphate.	An excursion ^(a) is defined as a duct spray water flow rate less than 230 gpm.
Performance Criteria Data Representativeness	The monitoring system consists of a differential pressure gauge which measures the pressure drop across the scrubber	A liquid flow meter is used to monitor the liquid flow rate.	A liquid flow meter is used to monitor the fresh water flow rate.	A liquid flow meter is used to monitor the duct spray flow rate.
QA/QC Practices	The differential gauge is calibrated annually.	The flow meter is calibrated annually.	The flow sensor is calibrated annually	The flow sensor is calibrated annually.
Monitoring Frequency	The pressure drop across the scrubber is measured continuously.	The scrubber liquid flow is measured continuously.	The fresh water or well extraction water flow is monitored continuously.	The scrubber duct spray water flow is monitored continuously.
Data Collection Procedure	The pressure drop is electronically recorded with many data points on a daily basis.	The liquid flow rate manually recorded every four hours on the scrubber operating log.	The water flow is manually recorded every four hours.	The scrubber duct spray water flow is monitored continuously.
Averaging Period	Daily	Daily	Daily	Daily

a) Excursion is defined in 40 CFR 64 as a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

10.26 Table 10.4 lists the emissions unit and pollutants that are applicable to CAM and details the monitoring requirements for each emissions unit which the permittee shall comply with. The table also specifies the specific values that are approved to determine when an excursion has occurred.

- Emissions Unit: Material Handling Baghouse
- Regulated Pollutants: PM
- Emission Limit: 7.0 lb/hr

Table 10.4 Compliance Assurance Monitoring Requirements for the Material Handling Baghouse

Requirement	Indicator No. 1
Indicator	Opacity Reading
Measurement Approach	Visible emissions from the baghouse exhaust will be monitored daily using a see/no see evaluation procedure.
Indicator Range	An excursion ^(a) is defined as the presence of visible emissions. An excursion shall trigger an inspection, corrective action, and reporting requirements.
Performance Criteria Data Representativeness	Measurements will be made at the emission point of the Material Handling Baghouse stack.
QA/QC Practices	The observer will be familiar with see/no see procedure.
Monitoring Frequency	A visible emissions observation will be performed daily.
Data Collection Procedure	The visible emissions observation is documented by the observer.
Averaging Period	None

a) Excursion is defined in 40 CFR 64 as a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

10.27 Table 10.5 lists the emissions unit and pollutants that are applicable to CAM and details the monitoring requirements for each emissions unit which the permittee shall comply with. The table also specifies the specific values that are approved to determine when an excursion has occurred.

- Emissions Unit: Defluorination Scrubber
- Regulated Pollutants: PM, PM₁₀ and Fluoride
- Emission Limits: PM 7.0 lb/hr, PM₁₀ 5.7 lb/hr, Fluoride 1.28 lb/hr

Table 10.5 Compliance Assurance Monitoring Requirements for the Defluorination Scrubber

Requirement	Indicator No. 1	Indicator No. 2
Indicator	Scrubber Pressure Drop	Scrubber Liquid Flow Rate
Measurement Approach	The pressure drop is monitored with a differential pressure gauge.	The liquid flow rate is monitored with a flow meter.
Indicator Range	An excursion ^(a) is defined as a pressure drop of less than 2.2 inches of water or greater than 6.6 inches of water.	An excursion ^(a) is defined as a scrubber liquid flow of less than 88 gpm or greater than 132 gpm.
Performance Criteria Data Representativeness	The monitoring system consists of a differential pressure gauge which measures the pressure drop across the scrubber	A liquid flow meter is used to monitor the liquid flow rate.
QA/QC Practices	The differential gauge is calibrated annually.	The flow sensor is calibrated annually.
Monitoring Frequency	The pressure drop across the scrubber is measured continuously.	The scrubber liquid flow is measured continuously.
Data Collection Procedure	The pressure drop is electronically recorded with many data points on a daily basis.	The scrubber liquid flow is electronically recorded with many data points on a daily basis.
Averaging Period	Daily average	Daily average

a) Excursion is defined in 40 CFR 64 as a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

CAM Recordkeeping

10.28 In accordance with 40 CFR 64.7(a), the permittee shall conduct the monitoring required under this permit upon issuance.

[40 CFR 64.7(a)]

10.29 In accordance with 40 CFR 64.7(b), at all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[40 CFR 64.7(b)]

- 10.30** In accordance with 40 CFR 64.7(c)-except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments)-the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the entoleter scrubber, material handling baghouse, and defluorination scrubber are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of CAM, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- [40 CFR 64.7(c)]**
- 10.31** In accordance with 40 CFR 64.7(d), upon detecting an excursion or exceedance, the permittee shall restore operation of the emissions unit(s) (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- [40 CFR 64.7(d)]**
- 10.32** In accordance with 40 CFR 64.3(b), for the description of the control device(s) (e.g., multiclone in series with a wet scrubber and cyclone separator), if the manufacturer specifications for the monitoring devices for indicator 1 (e.g., pressure drop) and indicator 2 (e.g., scrubbing media flow rate) include calibration procedures but do not specify a calibration frequency, the device shall be calibrated at least once each calendar year.
- [40 CFR 64.3(b)(1), (2), and (3)]**
- 10.33** In accordance with 40 CFR 64.6(c)(2), an excursion shall be defined as any measured monitoring parameter which is outside the indicator ranges specified for the emissions units in Tables 10.3 through 10.5.
- [40 CFR 64.6(c)(2)]**
- 10.34** In accordance with 40 CFR 64.7(e), if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to this operating permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
- [40 CFR 64.7(e)]**

10.35 In accordance with 40 CFR 64.8(a), the permittee shall develop and implement a quality improvement plan (QIP) if an accumulation of exceedances or excursions exceeds 5 percent duration of either the entoleter scrubber, material handling baghouse, or defluorination scrubber's operating time for a reporting period.

[40 CFR 64.8(a)]

10.36 In accordance with 40 CFR 64.9(a)(2), the reports required by the Semiannual Monitoring Reports and Reporting Deviations and Excess Emissions General Provisions shall include the following information for those emissions units listed in Tables 10.3 through 10.5.

- Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken.
- Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).

[40 CFR 64.9(a)(2)]

10.37 In accordance with 40 CFR 64.9(b), the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring or records of monitoring maintenance or corrective actions).

[40 CFR 64.9(b)]

10.38 Should there be a conflict between 40 CFR 64 and any of Permit Conditions 10.24 through 10.29 or 10.32 through 10.35 of this permit, the 40 CFR 64 shall govern.

11 Emissions Unit Group 8: Gypsum Stack (Pile)

Summary Description

The following is a narrative description of the gypsum stack regulated in this Tier I operating permit. This description is for informational purposes only.

Slurried phosphogypsum (i.e., calcium sulfate dehydrate, $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$, commonly referred to as gypsum) produced in the phosphoric acid plant is combined with process water and flows to the repulp tank(s). Gypsum slurry is pumped from the repulp tank(s) to the gypsum stack (pile). The gypsum stack consists of six primary ponds/cells separated by dikes and levees. Gypsum slurry is collected in one cell while the other cells are allowed to dry. Excavators move the gypsum up around the edges of the dry cell(s), and bulldozers spread and compact the material to increase the embankment height, which maintains the capacity of the stack. With the new edges in place, the slurried gypsum feed line(s) are then diverted to the dry cell(s) and the slurried cell is allowed to dry. Water used to transport gypsum to the gypsum stack is decanted and recycled back to the process via the decant ponds and blend tank to be used as process make up and cooling water.

The sources in the gypsum stack are the gypsum stack pond, dike-building activities and wind-blown dust.

Table 11.1 describes the devices used to control emissions from the gypsum stack.

Table 11.1 Gypsum Stack Description

Source ID	Emissions Units / Processes	Control Devices
1701	Gypsum stack pond	Reasonable control of fugitive emissions
1712	Dike building activities	
1713	Wind-blown dust	

Table 11.2 contains only a summary of the requirements that apply to the gypsum stack. Specific permit requirements are listed below.

Table 11.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
11.1	Total fluorides	17.50 lb/hr, 76.65 T/yr	PTC No. P-2016.0055	11.4
11.2	PM ₁₀	4.30 lb/hr, 18.84 T/yr	PTC No. P-2016.0055	
11.3	Phosphogypsum	Phosphogypsum removal from stacks	40 CFR 61, Subpart R	11.5 – 11.11

Emission Limits/Standard Summary

11.1 Fluoride Emission Limit

Fluoride emissions from the gypsum stack shall not exceed 17.5 lb/hr and 76.65 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

11.2 PM₁₀ Emission Limit

The PM₁₀ emissions from the gypsum stack shall not exceed 4.30 lb/hr and 18.84 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

11.3 Phosphogypsum

Each person who generates phosphogypsum shall place all phosphogypsum in stacks. Phosphogypsum may be removed from a phosphogypsum stack only as expressly provided by 40 CFR 61, Subpart R.

[40 CFR 61.202]

Monitoring and Recordkeeping Requirements

11.4 Fluoride and PM₁₀ Limits

The permittee shall maintain the documentation that lists the methods to control emissions to demonstrate compliance with the total fluoride emissions limits in Permit Condition 11.1 and PM₁₀ emissions limits in Permit Condition 11.2.

[PTC No. P-2016.0055, 8/19/19]

11.5 Inactive Stack

If the gypsum stack ever becomes classified as an inactive stack, the permittee shall record the date of inactivity and notify DEQ immediately. If the gypsum stacks become classified as inactive, the permittee is then immediately subject to the Radon-222 emissions limits and its related requirements in 40 CFR 61 Subpart R.

[PTC No. P-2016.0055, 8/19/19]

40 CFR 61 Subpart R – National Emission Standards for Radon Emissions From Phosphogypsum Stacks

11.6 40 CFR 61 Subpart R - § 61.204 Distribution and use of phosphogypsum for outdoor agricultural purposes

In accordance with §61.204, phosphogypsum may be lawfully removed from a stack and distributed in commerce for use in outdoor agricultural research and development and agricultural field use if each of the following requirements is satisfied:

- (a) The owner or operator of the stack from which the phosphogypsum is removed shall determine annually the average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as provided by §61.207.
- (b) The average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as determined pursuant to §61.207, shall not exceed 10 pCi/g (4500 pCi/lb).
- (c) All phosphogypsum distributed in commerce for use pursuant to this section by the owner or operator of a phosphogypsum stack shall be accompanied by a certification document which conforms to the requirements of §61.208(a).

- (d) Each distributor, retailer, or reseller who distributes phosphogypsum for use pursuant to this section shall prepare certification documents which conform to the requirements of §61.208(b).
- (e) Use of phosphogypsum for indoor research and development in a laboratory must comply with §61.205.

[40 CFR 61.204]

11.7 40 CFR 61 Subpart R - § 61.205 Distribution and use of phosphogypsum for indoor research and development

In accordance with §61.205:

- (a) Phosphogypsum may be lawfully removed from a stack and distributed in commerce for use in indoor research and development activities, provided that it is accompanied at all times by certification documents which conform to the requirements of §61.208. In addition, before distributing phosphogypsum to any person for use in indoor research and development activities, the owner or operator of a phosphogypsum stack shall obtain from that person written confirmation that the research facility will comply with all of the limitations set forth in paragraph (b) of this section.
- (b) Any person who purchases and uses phosphogypsum for indoor research and development purposes shall comply with all of the following limitations. Any use of phosphogypsum for indoor research and development purposes not consistent with the limitations set forth in this section shall be construed as unauthorized distribution of phosphogypsum.
 - (1) Each quantity of phosphogypsum purchased by a facility for a particular research and development activity shall be accompanied by certification documents which conform to the requirements of §61.208.
 - (2) No facility shall purchase or possess more than 3182 kg (7,000 lb) of phosphogypsum for a particular indoor research and development activity. The total quantity of all phosphogypsum at a facility, as determined by summing the individual quantities purchased or possessed for each individual research and development activity conducted by that facility, may exceed 3182 kg (7,000 lb), provided that no single room in which research and development activities are conducted shall contain more than 3182 kg (7,000 lb).
 - (3) Containers of phosphogypsum used in indoor research and development activities shall be labeled with the following warning: Caution: Phosphogypsum Contains Elevated Levels of Naturally Occurring Radioactivity.
 - (4) For each indoor research and development activity in which phosphogypsum is used, the facility shall maintain records which conform to the requirements of §61.209(c).
 - (5) Indoor research and development activities must be performed in a controlled laboratory setting which the general public cannot enter except on an infrequent basis for tours of the facility. Uses of phosphogypsum for outdoor agricultural research and development and agricultural field use must comply with §61.204.
- (c) Phosphogypsum not intended for distribution in commerce may be lawfully removed from a stack by an owner or operator to perform laboratory analyses required by this subpart or any other quality control or quality assurance analyses associated with wet acid phosphorus production.

[40 CFR 61.205]

11.8 40 CFR 61 Subpart R - § 61.206 Distribution and use of phosphogypsum for other purposes

In accordance with §61.206:

- (a) Phosphogypsum may not be lawfully removed from a stack and distributed or used for any purpose not expressly specified in §61.204 or §61.205 without prior EPA approval.
- (b) A request that EPA approve distribution and/or use of phosphogypsum for any other purpose must be submitted in writing and must contain the following information:
 - (1) The name and address of the person(s) making the request.
 - (2) A description of the proposed use, including any handling and processing that the phosphogypsum will undergo.
 - (3) The location of each facility, including suite and/or building number, street, city, county, state, and zip code, where any use, handling, or processing of the phosphogypsum will take place.
 - (4) The mailing address of each facility where any use, handling, or processing of the phosphogypsum will take place, if different from paragraph (b)(3) of this section.
 - (5) The quantity of phosphogypsum to be used by each facility.
 - (6) The average concentration of radium-226 in the phosphogypsum to be used.
 - (7) A description of any measures which will be taken to prevent the uncontrolled release of phosphogypsum into the environment.
 - (8) An estimate of the maximum individual risk, risk distribution, and incidence associated with the proposed use, including the ultimate disposition of the phosphogypsum or any product in which the phosphogypsum is incorporated.
 - (9) A description of the intended disposition of any unused phosphogypsum.
 - (10) Each request shall be signed and dated by a corporate officer or public official in charge of the facility.
- (c) The Assistant Administrator for Air and Radiation may decide to grant a request that EPA approve distribution and/or use of phosphogypsum if he determines that the proposed distribution and/or use is at least as protective of public health, in both the short term and the long term, as disposal of phosphogypsum in a stack or a mine.
- (d) If the Assistant Administrator for Air and Radiation decides to grant a request that EPA approve distribution and/or use of phosphogypsum for a specified purpose, each of the following requirements shall be satisfied:
 - (1) The owner or operator of the stack from which the phosphogypsum is removed shall determine annually the average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as provided by §61.207.
 - (2) All phosphogypsum distributed in commerce by the owner or operator of a phosphogypsum stack, or by a distributor, retailer, or reseller, or purchased by the end-user, shall be accompanied at all times by certification documents which conform to the requirements §61.208.
 - (3) The end-user of the phosphogypsum shall maintain records which conform to the requirements of §61.209(c).

- (e) If the Assistant Administrator for Air and Radiation decides to grant a request that EPA approve distribution and/or use of phosphogypsum for a specified purpose, the Assistant Administrator may decide to impose additional terms or conditions governing such distribution or use. In appropriate circumstances, the Assistant Administrator may also decide to waive or modify the recordkeeping requirements established by §61.209(c).

[40 CFR 61.206]

11.9 40 CFR 61 Subpart R - § 61.207 Distribution and use of phosphogypsum for other purposes

In accordance with §61.207:

- (a) Before removing phosphogypsum from a stack for distribution in commerce pursuant to §61.204, or §61.206, the owner or operator of a phosphogypsum stack shall measure the average radium-226 concentration at the location in the stack from which phosphogypsum will be removed. Measurements shall be performed for each such location prior to the initial distribution in commerce of phosphogypsum removed from that location and at least once during each calendar year while distribution of phosphogypsum removed from the location continues.

- (1) A minimum of 30 phosphogypsum samples shall be taken at regularly spaced intervals across the surface of the location on the stack from which the phosphogypsum will be removed. Let n_1 represent the number of samples taken.
- (2) Measure the radium-226 concentration of each of the n_1 samples in accordance with the analytical procedures described in 40 CFR part 61, appendix B, Method 114.
- (3) Calculate the mean, \bar{x}_1 , and the standard deviation, s_1 , of the n_1 radium-226 concentrations:

$$\bar{x}_1 = \frac{\sum_{i=1}^{n_1} x_i}{n_1},$$

$$s_1 = \sqrt{\frac{\sum_{i=1}^{n_1} (x_i - \bar{x}_1)^2}{n_1 - 1}},$$

Where \bar{x}_1 and s_1 are expressed in pCi/g.

- (4) Calculate the 95th percentile for the distribution, \bar{x}^* , using the following equation:

$$\bar{x}^* = \bar{x}_1 + 1.64 \left(\frac{s_1}{\sqrt{n_1}} \right),$$

Where \bar{x}^* is expressed in pCi/g.

- (5) If the purpose for removing phosphogypsum from a stack is for distribution to commerce pursuant to §61.206, the owner or operator of a phosphogypsum stack shall report the mean, standard deviation, 95th percentile and sample size. If the purpose for removing phosphogypsum from a stack is for distribution to commerce pursuant to §61.204, the additional sampling procedures set forth in paragraphs (b) and (c) of this section shall apply.
- (b) Based on the values for \bar{x}_1 and \bar{x}^* calculated in paragraphs (a)(3) and (4) of this section, determine which of the following conditions will be met:
 - (1) If $\bar{x}_1 < 10$ pCi/g and $\bar{x}^* \leq 10$ pCi/g; phosphogypsum may be removed from this area of the stack for distribution in commerce pursuant to §61.204.

- (2) If $\bar{x}_1 < 10$ pCi/g and $\bar{x}^* > 10$ pCi/g, the owner or operator may elect to follow the procedures for further sampling set forth in paragraph (c) of this section:
 - (3) If $\bar{x}_1 \geq 10$ pCi/g; phosphogypsum shall not be removed from this area of the stack for distribution in commerce pursuant to §61.204.
- (c) If the owner or operator elects to conduct further sampling to determine if phosphogypsum can be removed from this area of the stack, the following procedure shall apply. The objective of the following procedure is to demonstrate, with a 95% probability, that the phosphogypsum from this area of the stack has a radium-226 concentration no greater than 10 pCi/g. The procedure is iterative, the sample size may have to be increased more than one time; otherwise the phosphogypsum cannot be removed from this area of the stack for distribution to commerce pursuant to §61.204.

- (1) Solve the following equation for the total number of samples required:

$$n_2 = \left(\frac{1.64s_1}{10 - \bar{x}_1} \right)^2.$$

The sample size n_2 shall be rounded upwards to the next whole number. The number of additional samples needed is $n_A = n_2 - n_1$.

- (2) Obtain the necessary number of additional samples, n_A , which shall also be taken at regularly spaced intervals across the surface of the location on the stack from which phosphogypsum will be removed.
- (3) Measure the radium-226 concentration of each of the n_A additional samples in accordance with the analytical procedures described in 40 CFR part 61, appendix B, Method 114.
- (4) Recalculate the mean and standard deviation of the entire set of n_2 radium-226 concentrations by joining this set of n_A concentrations with the n_1 concentrations previously measured. Use the formulas in paragraph (a)(3) of this section, substituting the entire set of n_2 samples in place of the n_1 samples called for in paragraph (a)(3) of this section, thereby determining the mean, \bar{x}_2 , and standard deviation, s_2 , for the entire set of n_2 concentrations.
- (5) Repeat the procedure described in paragraph (a)(4) of this section, substituting the recalculated mean, \bar{x}_2 , for \bar{x}_1 , the recalculated standard deviation, s_2 , for s_1 , and total sample size, n_2 , for n_1 .
- (6) Repeat the procedure described in paragraph (b) of this section, substituting the recalculated mean, \bar{x}_2 for \bar{x}_1 .

[40 CFR 61.207]

11.10 40 CFR 61 Subpart R - § 61.208 Certification requirements

In accordance with §61.208:

- (a) (1) The owner or operator of a stack from which phosphogypsum will be removed and distributed in commerce pursuant to §61.204, §61.205, or §61.206 shall prepare a certification document for each quantity of phosphogypsum which is distributed in commerce which includes:
 - (i) The name and address of the owner or operator;
 - (ii) The name and address of the purchaser or recipient of the phosphogypsum;
 - (iii) The quantity of phosphogypsum, in kilograms or pounds sold or transferred;
 - (iv) The date of sale or transfer;

- (v) A description of the intended end-use for the phosphogypsum;
 - (vi) The average radium-226 concentration, in pCi/g (pCi/lb), of the phosphogypsum, as determined pursuant to §61.207; and
 - (vii) The signature of the person who prepared the certification.
- (a) (2) The owner or operator shall retain the certification document for five years from the date of sale or transfer, and shall produce the document for inspection upon request by the Administrator, or his authorized representative. The owner or operator shall also provide a copy of the certification document to the purchaser or recipient.
- (b) (1) Each distributor, retailer, or reseller who purchases or receives phosphogypsum for subsequent resale or transfer shall prepare a certification document for each quantity of phosphogypsum which is resold or transferred which includes:
- (i) The name and address of the distributor, retailer, or reseller;
 - (ii) The name and address of the purchaser or recipient of the phosphogypsum;
 - (iii) The quantity (in pounds) of phosphogypsum resold or transferred;
 - (iv) The date of resale or transfer;
 - (v) A description of the intended end-use for the phosphogypsum;
 - (vi) A copy of each certification document which accompanied the phosphogypsum at the time it was purchased or received by the distributor, retailer, or reseller; and
 - (vii) The signature of the person who prepared the certification.
- (c) (2) The distributor, retailer, or reseller shall retain the certification document for five years from the date of resale or transfer, and shall produce the document for inspection upon request by the Administrator, or his authorized representative. For every resale or transfer of phosphogypsum to a person other than an agricultural end-user, the distributor, retailer, or reseller shall also provide a copy of the certification document to the purchaser or transferee.

[40 CFR 61.208]

11.11 40 CFR 61 Subpart R - § 61.209 Required records

In accordance with §61.209:

- (b) Each owner or operator of a phosphogypsum stack must maintain records documenting the procedure used to determine average radium-226 concentration pursuant to §61.207, including all measurements, calculations, and analytical methods on which input parameters were based. The required documentation shall be sufficient to allow an independent auditor to verify the accuracy of the radium-226 concentration.
- (c) Each facility which uses phosphogypsum pursuant to §61.205 or §61.206 shall prepare records which include the following information:
 - (1) The name and address of the person in charge of the activity involving use of phosphogypsum.
 - (2) A description of each use of phosphogypsum, including the handling and processing that the phosphogypsum underwent.
 - (3) The location of each site where each use of phosphogypsum occurred, including the suite and/or building number, street, city, county, state, and zip code.

- (4) The mailing address of each facility using phosphogypsum, if different from paragraph (c)(3) of this section.
 - (5) The date of each use of phosphogypsum.
 - (6) The quantity of phosphogypsum used.
 - (7) The certified average concentration of radium-226 for the phosphogypsum which was used.
 - (8) A description of all measures taken to prevent the uncontrolled release of phosphogypsum into the environment.
 - (9) A description of the disposition of any unused phosphogypsum.
- (d) These records shall be retained by the facility for at least five years from the date of use of the phosphogypsum and shall be produced for inspection upon request by the Administrator, or his authorized representative.

[40 CFR 61.209]

40 CFR 63 Subpart AA – National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants

11.12 40 CFR 63 Subpart AA - § 63.600 Applicability

In accordance with §63.600(b)(7), the requirements of this subpart apply to emissions of hazardous air pollutants (HAP) emitted from each gypsum dewatering stack.

[40 CFR 63.600 (b)(7)]

11.13 40 CFR 63 Subpart AA - § 63.602 Standards and compliance dates

In accordance with §63.602(d), for each gypsum dewatering stack system, the permittee must prepare, and operate in accordance with, a gypsum dewatering stack and cooling pond management plan that contains the information specified in paragraph (e) of this section beginning on August 19, 2016.

In accordance with §63.602(e), the gypsum dewatering stack and cooling pond management plan must include the information specified in paragraphs (e)(1) through (3) of this section. The permittee must submit the gypsum dewatering stack and cooling pond management plan for approval to the Administrator as specified in paragraph (e)(4) of this section.

- (1) Location (including latitude and longitude of centroid in decimal degrees to four decimal places) of each gypsum dewatering stack and each cooling pond in the gypsum dewatering stack system.
- (2) Permitted maximum footprint acreage of each gypsum dewatering stack and each cooling pond in the gypsum dewatering stack system.
- (3) Control measures that you use to minimize fugitive hydrogen fluoride emissions from the gypsum dewatering stack system. If you operate one or more active gypsum dewatering stacks or cooling ponds that are considered new sources as defined in §63.601, then you must use, and include in the management plan, at least two of the control measures listed in paragraphs (e)(3)(i) through (vii) of this section for your gypsum dewatering stack system. If you only operate active gypsum dewatering stacks and cooling ponds that are considered existing sources as defined in §63.601, then you must use, and include in the management plan, at least one of the control measures listed in paragraphs (e)(3)(i) through (vii) of this section for your gypsum dewatering stack system.

- (i) For at least one cooling pond that is considered part of your gypsum dewatering stack system, you may choose to submerge the discharge pipe to a level below the surface of the cooling pond.
- (ii) For at least one cooling pond that is considered part of your gypsum dewatering stack system, you may choose to use lime (or any other caustic substance) to raise the pH of the liquid (*e.g.*, the condensed vapors from the flash cooler and evaporators, and scrubbing liquid) discharged into the cooling pond. If you choose this control measure, then you must include in the plan the method used to raise the pH of the liquid discharged into the cooling pond, the target pH value (of the liquid discharged into the cooling pond) expected to be achieved by using the method, and the analyses used to determine and support the raise in pH.
- (iii) For all cooling ponds that are considered part of your gypsum dewatering stack system, you may choose to reduce the total cooling pond surface area based on a facility specific evaluation plan. If you choose this control measure, then you must include in the facility specific evaluation plan certified by an independent licensed professional engineer or similarly qualified individual. You must also include in the plan the method used to reduce total cooling pond footprint, the analyses used to determine and support the reduction in the total cooling pond surface area, and the amount of total cooling pond surface area that was reduced due to the facility specific evaluation plan.
- (iv) For at least one gypsum dewatering stack that is considered part of your gypsum dewatering stack system, you may choose to minimize the surface area of the gypsum pond associated with the active gypsum dewatering stack by using a rim ditch (cell) building technique or other building technique.
- (v) For at least one gypsum dewatering stack that is considered part of your gypsum dewatering stack system, you may choose to apply slaked lime to the active gypsum dewatering stack surfaces. If you choose this control measure, then you must include in the plan the method used to determine the specific locations slaked lime is applied. The plan must also include the methods used to determine the quantity of, and when to apply, slaked lime (*e.g.*, slaked lime may be applied to achieve a state ambient air standard for fluorides, measured as hydrogen fluoride).
- (vi) For at least one gypsum dewatering stack that is considered part of your gypsum dewatering stack system, you may choose to apply soil caps and vegetation, or a synthetic cover, to a portion of side slopes of the active gypsum dewatering stack. If you choose this control measure, then you must include in the plan the method used to determine the specific locations of soil caps and vegetation, or synthetic cover; and specify the acreage and locations where soil caps and vegetation, or synthetic cover, is applied. The plan must also include a schedule describing when soil caps and vegetation, or synthetic cover, is to be applied.
- (vii) For all gypsum dewatering stacks that are considered part of your gypsum dewatering stack system, you may choose to establish closure requirements that at a minimum, contain requirements for the specified items in paragraphs (e)(3)(vii)(A) and (B) of this section.

- (A) A specific trigger mechanism for when you must begin the closure process on the gypsum dewatering stack; and
 - (B) A requirement to install a final cover. For purposes of this paragraph, final cover means the materials used to cover the top and sides of a gypsum dewatering stack upon closure.
- (4) The permittee must submit the plan for approval to the Administrator at least 6 months prior to the compliance date specified in §63.602(d), or with the permit application for modification, construction, or reconstruction. The plan must include details on how you will implement and show compliance with the control technique(s) that you have selected to use. The Administrator will approve or disapprove your plan within 90 days after receipt of the plan. To change any of the information submitted in the plan, you must submit a revised plan 60 days before the planned change is to be implemented in order to allow time for review and approval by the Administrator before the change is implemented.

[40 CFR 63.602 (d-e)]

11.14 40 CFR 63 Subpart AA - § 63.607 Notification, recordkeeping, and reporting requirements

In accordance with §63.607(b), the permittee must comply with the reporting and recordkeeping requirements in §63.10 as specified in paragraphs (b)(1) through (5) of this section.

- (1) You must comply with the general recordkeeping requirements in §63.10(b)(1).
- (2) As required by §63.10(d), you must report the results of the initial and subsequent performance tests as part of the notification of compliance status required in §63.9(h). You must verify in the performance test reports that the operating limits for each process have not changed or provide documentation of revised operating limits established according to §63.605, as applicable. In the notification of compliance status, you must also:
 - (iii) Submit the gypsum dewatering stack and cooling pond management plan specified in §63.602(e).
 - (v) Each time a gypsum dewatering stack is closed, certify to the Administrator within 90 days of closure, that the final cover of the closed gypsum dewatering stack is a drought resistant vegetative cover that includes a barrier soil layer that will sustain vegetation.

In accordance with §63.607(c), the permittee's records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on site, or accessible from a central location by computer or other means that instantly provides access at the site, for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

[40 CFR 63.607 (b-c)]

11.15 40 CFR 63 Subpart AA - § 63.608 General requirements and applicability of general provisions of this part

In accordance with §63.608(a), the permittee must comply with the general provisions in subpart A of this part as specified in appendix A to this subpart.

In accordance with §63.608(b), at all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to

reduce emissions if levels required by this standard have been achieved. Determination by the Administrator of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.608 (a-b)]

11.16 40 CFR 63 Subpart AA - § 63.610 Exemption from new source performance standards

In accordance with §63.610, any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart T, subpart U, or subpart NN. To be exempt, a source must have a current operating permit pursuant to title V of the Clean Air Act and the source must be in compliance with all requirements of this subpart. For each affected source, this exemption is upon the date that you demonstrate to the Administrator that the requirements of §§63.605 and 63.606 have been met.

[40 CFR 63.610]

11.17 40 CFR 63 Subpart AA - § 63.611 Implementation and enforcement

In accordance with §63.611(a), this subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable state, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a state, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a state, local, or Tribal agency.

In accordance with §63.611(b), the authorities specified in paragraphs (b)(1) through (5) of this section are retained by the Administrator of U.S. EPA and cannot be delegated to State, local, or Tribal agencies.

- (1) Approval of alternatives to the requirements in §§63.600, 63.602, 63.605, and 63.610.
- (2) Approval of requests under §§63.7(e)(2)(ii) and 63.7 (f) for alternative requirements or major changes to the test methods specified in this subpart, as defined in §63.90.
- (3) Approval of requests under §63.8(f) for alternative requirements or major changes to the monitoring requirements specified in this subpart, as defined in §63.90.
- (4) Waiver or approval of requests under §63.10(f) for alternative requirements or major changes to the recordkeeping and reporting requirements specified in this subpart, as defined in §63.90.
- (5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

[40 CFR 63.611 (a-b)]

12 Emissions Unit Group 9: Phosphoric Acid Manufacturing Plants – Phosphoric Acid Plant No. 400 / Wet Process Phosphoric Acid Process Line

Summary Description

The following is a narrative description of the phosphoric acid plant No. 400 regulated in this Tier I operating permit. This description is for informational purposes only.

Phosphoric acid is produced by the reaction of sulfuric acid with phosphate ore. The sulfuric acid is generally produced on site at one of the two sulfuric acid plants (No. 300 and No. 400) and the phosphate ore is pumped in from the Smoky Canyon mine as slurry. The ore slurry is partially dewatered in the ore thickener and excess water can be stored in one of the three slurry water storage silos. The thickened phosphate ore slurry is pumped into the main reactor at the phosphoric acid plant and mixed with high concentration sulfuric acid (typically 93% or 98%), water, and recycled phosphoric acid from the belt filters. This reaction produces phosphoric acid and gypsum. The gypsum is removed by pumping the slurry onto belt filters where the phosphoric acid is removed. The solid gypsum is washed on the filters. The gypsum cake is dropped into a launder and slurried to the repulp tanks(s), and then to the gypsum stack. The phosphoric acid filtrate is concentrated using clarifiers and evaporators. The phosphoric acid is sent either to product storage tanks or on to the superphosphoric acid manufacturing process.

The Purified Phosphoric Acid Plant, which is embedded in the 400 Phosphoric Acid Plant, uses membrane technology to remove residual ore impurities to produce a technical grade product. A step in the process requires dewatering an intermediate stream via evaporation. An evaporator similar to the phosphoric acid evaporators is used.

The plant uses the following equipment:

- Digester/reactor – the ore slurry, sulfuric acid, and recycled acid are fed into the digester/reactor. The chemical reaction yields phosphoric acid (approximately 27% P_2O_5 content) and calcium sulfate crystals known as phosphogypsum.
- Digester contact barometric condenser – draws the vacuum on the cooler for the digester. The condenser requires a hot well to maintain the necessary vacuum and collect the condensate. The condensate is then transferred into a pump tank where it is pumped to the gypsum stack for cooling or to the vacuum belt filter system as process water.
- Vacuum belt filter – separates the slurry of phosphoric acid and phosphogypsum, allowing the gypsum to be delivered to the repulp tank(s) and the phosphoric acid to proceed for further refining. (The precipitated gypsum is pumped to the gypsum stack).
- Vacuum evaporator – concentrates incoming feed phosphoric acid to approximately 50% P_2O_5 .
- Evaporator contact barometric condenser – draws the vacuum on the evaporator. The condenser requires a hot well to maintain the necessary vacuum and collect the condensate. The condensate is then transferred into the hot pit. The effluent from the hot pit is fed to the evaporative cooling tower.
- Hot wells (which may also be called seal cans, hot pits, and filtrate cans) – retain the vacuum in critical equipment, collect effluent, and process fluids from the evaporation processes.

Table 12.1 describes the devices used to control emissions from the phosphoric acid plant No. 400.

Table 12.1 Phosphoric Acid Plant No. 400 Description

Source ID	Emissions Units / Processes	Control Devices
212.0	Phosphoric acid reactor (also called digester)	Digester scrubber/absorber
202.0	Digester hotwell	
226.0	Digester flash cooler pre-condensers	
203.1	Digester flash cooler vacuum pumps	
200.0	No. 2 Hot pit	Belt filter scrubber/absorber
204.0	Belt filter filtrate cans	
209.0	Belt filters	
215.0	Evaporator hotwells	
203.2	Belt filter vacuum pumps	

Table 12.2 contains only a summary of the requirements that apply to the phosphoric acid plant No. 400. Specific permit requirements are listed below.

Table 12.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
12.1	Total fluoride	1.3 lb/hr, 4.71 T/yr	PTC No. P-2016.0055	12.6, 12.9 – 12.16
12.9		0.020 lb/T of equivalent P ₂ O ₅ feed	40 CFR 63.602(a)	
12.2	PM	3.38 lb/hr, 14.80 T/yr	PTC No. P-2016.0055	12.6, 12.7, 12.11
		Process weight rate	PTC No. P-2016.0055	
12.3	PM ₁₀	5.69 lb/hr, 24.92 T/yr	PTC No. P-2016.0055	12.6, 12.7, 12.11
12.4	Total reduced sulfur	8.61 lb/hr, 37.7 T/yr	PTC No. P-2016.0055	12.8
12.5	Fugitive PM ₁₀	Reasonably controlled	PTC No. P-2016.0055	12.5

Emission Limits

12.1 Total Fluoride Emission Limit

Total fluoride (i.e., particulates and gaseous) emissions from the phosphoric acid plant No. 400 stack shall not exceed 1.30 lb/hr, and 4.71 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

12.2 PM Emission Limit

The PM emissions from the phosphoric acid plant No. 400 shall not exceed the emission limits set by IDAPA 58.01.01.701, or 3.38 lb/hr (whichever is more restrictive), and shall not exceed 14.80 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

12.3 PM₁₀ Emission Limit

The PM₁₀ emissions from the phosphoric acid plant No. 400 stack shall not exceed 5.69 lb/hr and 24.92 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

12.4 Total Reduced Sulfur Emission Limit

Total reduced sulfur emissions from the phosphoric acid plant No. 400 stack shall not exceed 8.61 lb/hr, and 37.7 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

12.5 Fugitive PM₁₀ Emission Limit

Uncaptured fugitive PM₁₀ emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651.

[PTC No. P-2016.0055, 8/19/19]

Operating Requirements

12.6 Scrubber Maintenance

Maintenance to a scrubber and/or process maintenance shall be performed if visible emissions from the scrubber stack exceed 15% opacity. This maintenance opacity applies to all scrubbers described in this process. The permittee shall maintain a record of emission control equipment maintenance, which will be made available to inspectors on request.

[PTC No. P-2016.0055, 8/19/19]

Performance Testing Requirements

12.7 PM and PM₁₀ Performance Test

The permittee shall conduct a compliance test to demonstrate compliance with hourly PM and PM₁₀ emissions limits in Permit Conditions 12.2 and 12.3. Emissions from the scrubber stack shall be measured using the following EPA reference test methods, or approved alternatives: PM - Method 5; PM₁₀ - Methods 5 and 202.

Testing shall be performed according to the following schedule. If the pollutant emission rate measured in the most recent test is less than or equal to 75% of the emission limit, the next test shall be conducted within five years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission limit, the next test shall be conducted within two years of the test date. If the pollutant emission rate measured during the most recent performance test is greater than 90% of the emission limit, the next test shall be conducted within 13-months of the test date.

[PTC No. P-2016.0055, 8/19/19]

12.8 Total Reduced Sulfur Performance Test

The permittee shall conduct a one-time compliance test in this permit term to demonstrate compliance with the total reduced sulfur limits in Permit Condition 12.4.

[IDAPA 58.01.01.322.06, 5/1/94]

40 CFR 63 Subpart AA – National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants

12.9 40 CFR 63 Subpart AA - § 63.600 Applicability

In accordance with §63.600(b)(1), the requirements of this subpart apply to emissions of hazardous air pollutants (HAP) emitted from each wet-process phosphoric acid process line. A wet-process phosphoric acid process line includes reactors, filters, evaporators, and hot wells.

[40 CFR 63.600 (b)(1)]

12.10 40 CFR 63 Subpart AA - § 63.602 Standards and compliance dates

In accordance with §63.602(a)(1), for each existing wet-process phosphoric acid process line, superphosphoric acid process line, and phosphate rock dryer that commenced construction or reconstruction on or before December 27, 1996, the permittee must comply with the emission limit specified in Table 1 to this subpart beginning on June 10, 2002, for total fluorides of 0.020 lb/ton of equivalent P₂O₅ feed.

In accordance with §63.602(c), beginning on June 10, 2002, the permittee must not introduce into an existing evaporative cooling tower that commenced construction or reconstruction on or before December 27, 1996, any liquid effluent from any absorber installed to control emissions from process equipment. Beginning on June 10, 1999 or at startup, whichever is later, you must not introduce into a new evaporative cooling tower that commences construction or reconstruction after December 27, 1996, any liquid effluent from any absorber installed to control emissions from process equipment.

In accordance with §63.602(f), beginning on August 19, 2015, during periods of startup and shutdown (as defined in §63.601), the permittee must comply with the work practice specified in this paragraph in lieu of the emission limits specified in paragraph (a) of this section. During periods of startup and shutdown, the permittee must operate any control device(s) being used at the affected source, monitor the operating parameters specified in Table 3 of this subpart, and comply with the operating limits specified in Table 4 of this subpart.

[40 CFR 63.602 a, c, f]

12.11 40 CFR 63 Subpart AA - § 63.605 Operating and monitoring requirements

In accordance with §63.605(a), for each wet-process phosphoric acid process line or superphosphoric acid process line subject to the provisions of this subpart, the permittee must comply with the monitoring requirements specified in paragraphs (a)(1) and (2) of this section.

- (1) Install, calibrate, maintain, and operate a continuous monitoring system (CMS) according to your site-specific monitoring plan specified in §63.608(c). The CMS must have an accuracy of ±5 percent over its operating range and must determine and permanently record the mass flow of phosphorus-bearing material fed to the process.
- (2) Maintain a daily record of equivalent P₂O₅ feed. Calculate the equivalent P₂O₅ feed by determining the total mass rate, in metric ton/hour of phosphorus bearing feed, using the monitoring system specified in paragraph (a)(1) of this section and the procedures specified in §63.606(f)(3).

In accordance with §63.605(d), if you use a control device(s) to comply with the emission limits specified in Table 1 or 2 of this subpart, the permittee must install a continuous parameter monitoring system (CPMS) and comply with the requirements specified in paragraphs (d)(1) through (5) of this section.

- (1) The permittee must monitor the operating parameter(s) applicable to the control device that you use as specified in Table 3 to this subpart and establish the applicable limit or range for the operating parameter limit as specified in paragraphs (d)(1)(i) and (ii) of this section, as applicable. Table 12.3 provides a summary of the applicable requirements in Table 3 of the subpart.

Table 12.3 Summary of Monitoring Equipment Monitoring Parameters

You must ...	If ...	And you must monitor ...^(a)	And ...^(a)
Install a continuous parameter monitoring system (CPMS) for liquid flow at the inlet of the absorber	Your absorber is designed and operated with pressure drops of 5 inches of water column or more; and you choose to monitor only the influent liquid flow, rather than the liquid-to-gas ratio	Influent liquid flow	
Install CPMS for liquid and gas flow at the inlet of the absorber ^(b)	Your absorber is designed and operated with pressure drops of 5 inches of water column or less; or Your absorber is designed and operated with pressure drops of 5 inches of water column or more, and you choose to monitor the liquid-to-gas ratio, rather than only the influent liquid flow, and you want the ability to lower liquid flow with changes in gas flow	Liquid-to-gas ratio as determined by dividing the influent liquid flow rate by the gas flow rate through the absorber. The units of measure must be consistent with those used to calculate this ratio during the performance test	You must determine the gas flow rate through the absorber by: Measuring the gas flow rate at the absorber inlet or outlet; Using the blower design capacity, with appropriate adjustments for pressure drop; ^(c) or Using a regression model. ^(d)
Install CPMS for pressure at the gas stream inlet and outlet of the absorber	Your absorber is designed and operated with pressure drops of 5 inches of water column or more	Pressure drop through the absorber	You may measure the pressure of the inlet gas using amperage on the blower if a correlation between pressure and amperage is established

a) To monitor an operating parameter that is not specified in this table (including process-specific techniques not specified in this table to determine gas flow rate through an absorber), you must request, on a site-specific basis, an alternative monitoring method under the provisions of §63.8(f).

b) For new sources that commence construction or reconstruction after August 19, 2015, the compliance date is immediately upon startup. For existing sources, and new sources that commence construction or reconstruction after December 27, 1996, and on or before August 19, 2015, if your absorber is designed and operated with pressure drops of 5 inches of water column or less, then the compliance date is August 19, 2018. In the interim, for existing sources, and new sources that commence construction or reconstruction after December 27, 1996, and on or before August 19, 2015, with an absorber designed and operated with pressure drops of 5 inches of water column or less, you must comply with one of the following: (i) The monitoring requirements in this Table 3 for absorbers designed and operated with pressure drops of 5 inches of water column or less; (ii) the applicable monitoring provisions included in a permit issued under 40 CFR part 70 to assure compliance with subpart AA; (iii) the applicable monitoring provisions of an Alternative Monitoring Plan approved pursuant to §63.8(f); or (iv) install CPMS for pressure at the gas stream inlet and outlet of the absorber, and monitor pressure drop through the absorber.

c) If you select this option, then you must comply with §63.608(e). The option to use blower design capacity is intended to establish the maximum possible gas flow through the absorber; and is available regardless of the location of the blower (influent or effluent), as long as the gas flow rate through the absorber can be established. Establish the minimum liquid-to-gas ratio operating limit by dividing the minimum liquid flow rate to the absorber (determined during a performance test) by the maximum possible gas flow rate through the absorber (determined using blower design capacity).

d) If you select this option, then you must comply with §63.608(f). The regression model must be developed using direct measurements of gas flow rate, and design fan curves that correlate gas flow rate to static pressure (*i.e.*, fan suction pressure) and brake horsepower of the blower. You must conduct an annual regression model verification using direct measurements of gas flow rate to ensure the correlation remains accurate. Direct measurements of gas flow rate used to develop or verify regression models may be collected during, or separately from, the annual performance testing that is required in §63.606(b).

- (i) Except as specified in paragraph (d)(1)(ii) of this section, determine the value(s) as the arithmetic average of operating parameter measurements recorded during the three test runs conducted for the most recent performance test.

- (ii) If you use an absorber or a wet electrostatic precipitator to comply with the emission limits in Table 1 or 2 to this subpart and you monitor pressure drop across the absorber or secondary voltage for a wet electrostatic precipitator, you must establish allowable ranges using the methodology specified in paragraphs (d)(1)(ii)(A) and (B) of this section.
- (A) The allowable range for the daily averages of the pressure drop across an absorber and of the flow rate of the absorber liquid to each absorber in the process absorbing system, or secondary voltage for a wet electrostatic precipitator, is ± 20 percent of the baseline average value determined in paragraph (d)(1)(i) of this section. The Administrator retains the right to reduce the ± 20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ± 10 percent under any instance.
- (B) As an alternative to paragraph (d)(1)(ii)(A) of this section, you may establish allowable ranges for the daily averages of the pressure drop across an absorber, or secondary voltage for an electrostatic precipitator, for the purpose of assuring compliance with this subpart using the procedures described in this paragraph. You must establish the allowable ranges based on the baseline average values recorded during previous performance tests, or the results of performance tests conducted specifically for the purposes of this paragraph. You must conduct all performance tests using the methods specified in §63.606. You must certify that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges. When a source using the methodology of this paragraph is retested, you must determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges.
- (2) The permittee must monitor, record, and demonstrate continuous compliance using the minimum frequencies specified in Table 4 to this subpart. Table 12.4 provides a summary of the applicable requirements in Table 4 of the subpart.

Table 12.4 Summary of Calibration and Quality Control Requirements for CPMS

For the operating parameter applicable to you, as specified in Table 3 . . .	You must establish the following operating limit . . .	And you must monitor, record, and demonstrate continuous compliance using these minimum frequencies . . .		
		Data measurement	Data recording	Data averaging period for compliance
Absorbers (Wet Scrubbers)				
Influent liquid flow	Minimum inlet liquid flow	Continuous	Every 15 minutes	Daily
Influent liquid flow rate and gas stream flow rate	Minimum influent liquid-to-gas ratio ^a	Continuous	Every 15 minutes	Daily
Pressure drop	Pressure drop range	Continuous	Every 15 minutes	Daily

- (3) The permittee must comply with the calibration and quality control requirements that are applicable to the operating parameter(s) you monitor as specified in Table 5 to this subpart. Table 12.5 provides a summary of the applicable requirements in Table 5 of the subpart.

Table 12.5 Summary of Calibration and Quality Control Requirements for CPMS^(a)

If you monitor this parameter . . .	Your accuracy requirements are . . .	And your calibration requirements are . . .
Temperature	<p>±1 percent over the normal range of temperature measured or 2.8 degrees Celsius (5 degrees Fahrenheit), whichever is greater, for non-cryogenic temperature ranges</p> <p>±2.5 percent over the normal range of temperature measured or 2.8 degrees Celsius (5 degrees Fahrenheit), whichever is greater, for cryogenic temperature ranges</p>	<p>Performance evaluation annually and following any period of more than 24 hours throughout which the temperature exceeded the maximum rated temperature of the sensor, or the data recorder was off scale.</p> <p>Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant temperature sensor.</p> <p>Selection of a representative measurement location.</p>
Flow Rate	<p>±5 percent over the normal range of flow measured or 1.9 liters per minute (0.5 gallons per minute), whichever is greater, for liquid flow rate</p> <p>±5 percent over the normal range of flow measured or 280 liters per minute (10 cubic feet per minute), whichever is greater, for gas flow rate</p> <p>±5 percent over the normal range measured for mass flow rate</p>	<p>Performance evaluation annually and following any period of more than 24 hours throughout which the flow rate exceeded the maximum rated flow rate of the sensor, or the data recorder was off scale.</p> <p>Checks of all mechanical connections for leakage monthly.</p> <p>Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant flow sensor.</p> <p>Selection of a representative measurement location where swirling flow or abnormal velocity distributions due to upstream and downstream disturbances at the point of measurement are minimized.</p>
Pressure	<p>±5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater</p>	<p>Checks for obstructions (<i>e.g.</i>, pressure tap pluggage) at least once each process operating day.</p> <p>Performance evaluation annually and following any period of more than 24 hours throughout which the pressure exceeded the maximum rated pressure of the sensor, or the data recorder was off scale.</p> <p>Checks of all mechanical connections for leakage monthly. Visual inspection of all components for integrity, oxidation and galvanic corrosion every 3 months, unless the CPMS has a redundant pressure sensor.</p> <p>Selection of a representative measurement location that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.</p>

a) If you select the regression model option to monitor influent liquid-to-gas ratio as described in Table 3 to this subpart, then you must also continuously monitor (*i.e.*, record every 15 minutes, and use a daily averaging period) blower amperage, blower static pressure (*i.e.*, fan suction pressure), and any other parameters used in the regression model that are not constants.

- (4) If the permittee uses a non-regenerative adsorption system to achieve the mercury emission limits specified in Table 1 or 2 to this subpart, you must comply with the requirements specified in paragraph (e) of this section.

[40 CFR 63.605 a, d]

12.12 40 CFR 63 Subpart AA - § 63.606 Performance tests and compliance provisions

In accordance with §63.606(a), after the permittee conducts the initial performance test specified in paragraph (a) of this section, the permittee must conduct a performance test once per calendar year.

In accordance with §63.606(d),

- (1) The permittee must conduct the performance tests specified in this section at representative (normal) conditions for the process. Representative (normal) conditions means those conditions that:
 - (i) Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and
 - (ii) Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition. Operations during startup, shutdown, and malfunction do not constitute representative (normal) operating conditions for purposes of conducting a performance test.
- (2) The permittee must record the process information that is necessary to document the operating conditions during the test and include in such record an explanation to support that such conditions represent representative (normal) conditions. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

In accordance with §63.606(e), in conducting all performance tests, the permittee must use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in §63.7(f).

In accordance with §63.606(f), the permittee must determine compliance with the applicable total fluorides standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (f)(1) through (3) of this section.

- (1) Compute the emission rate (E) of total fluorides for each run using Equation AA-1:

$$E = \left(\sum_{i=1}^N C_i Q_i \right) / (PK) \quad (\text{Eq. AA-1})$$

Where:

E = Emission rate of total fluorides, gram/metric ton (pound/ton) of equivalent P₂O₅ feed.

C_i = Concentration of total fluorides from emission point “i,” milligram/dry standard cubic meter (milligram/dry standard cubic feet).

Q_i = Volumetric flow rate of effluent gas from emission point “i,” dry standard cubic meter/hour (dry standard cubic feet/hour).

N = Number of emission points associated with the affected facility.

P = Equivalent P₂O₅ feed rate, metric ton/hour (ton/hour).

K = Conversion factor, 1000 milligram/gram (453,600 milligram/pound).

- (2) The permittee must use Method 13A or 13B (40 CFR part 60, appendix A) to determine the total fluorides concentration (C_i) and the volumetric flow rate (Q_i) of the effluent gas at each emission point. The sampling time for each run at each emission point must be at least 60 minutes. The sampling volume for each run at each emission point must be at least 0.85 dscm (30 dscf). If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4 in Method 13 A, may be omitted.

- (3) Compute the equivalent P₂O₅ feed rate (P) using Equation AA-2:

$$P = M_p R_p \quad (\text{Eq. AA-2})$$

Where:

P = P₂O₅ feed rate, metric ton/hr (ton/hour).

M_p = Total mass flow rate of phosphorus-bearing feed, metric ton/hour (ton/hour).

R_p = P₂O₅ content, decimal fraction.

- (i) Determine the mass flow rate (M_p) of the phosphorus-bearing feed using the measurement system described in §63.605(a).
- (ii) Determine the P₂O₅ content (R_p) of the feed using, as appropriate, the following methods specified in Methods Used and Adopted By The Association of Florida Phosphate Chemists (incorporated by reference, see §63.14) where applicable:
- (A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.
 - (B) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method A—Volumetric Method.
 - (C) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method B—Gravimetric Quimociac Method.
 - (D) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method C—Spectrophotometric Method.
 - (E) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method A—Volumetric Method.
 - (F) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method B—Gravimetric Quimociac Method.
 - (G) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method C—Spectrophotometric Method.

[40 CFR 63.606 a, d-f]

12.13 40 CFR 63 Subpart AA - § 63.607 Notification, recordkeeping, and reporting requirements

In accordance with §63.607(a), the permittee must comply with the notification requirements specified in §63.9. During the most recent performance test, if you demonstrate compliance with the emission limit while operating your control device outside the previously established operating limit, you must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test. When a source is retested and the performance test results are submitted to the Administrator pursuant to paragraph (b)(1) of this section, §63.7(g)(1), or §63.10(d)(2), you must indicate whether the operating limit is based on the new performance test or the previously established limit. Upon establishment of a new operating limit, you must thereafter operate under the new operating limit. If the Administrator determines that you did not conduct the compliance test in accordance with the applicable requirements or that the operating limit established during the performance test does not correspond to representative (normal) conditions, you must conduct a new performance test and establish a new operating limit.

In accordance with §63.607(b), the permittee must comply with the reporting and recordkeeping requirements in §63.10 as specified in paragraphs (b)(1) through (5) of this section.

- (1) You must comply with the general recordkeeping requirements in §63.10(b)(1).
- (2) As required by §63.10(d), the permittee must report the results of the initial and subsequent performance tests as part of the notification of compliance status required in §63.9(h). You must verify in the performance test reports that the operating limits for each process have not changed or provide documentation of revised operating limits established according to §63.605, as applicable. In the notification of compliance status, you must also:
 - (i) Certify to the Administrator annually that you have complied with the evaporative cooling tower requirements specified in §63.602(c).
 - (ii) Submit analyses and supporting documentation demonstrating conformance with the Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see §63.14) and specifications for bag leak detection systems as part of the notification of compliance status report.
 - (iv) If you elect to demonstrate compliance by following the procedures in §63.605(d)(1)(ii)(B), certify to the Administrator annually that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges.
- (3) As required by §63.10(e)(3), you must submit an excess emissions report for any exceedance of an emission limit, work practice standard, or operating parameter limit if the total duration of the exceedances for the reporting period is 1 percent of the total operating time for the reporting period or greater. The report must contain the information specified in §63.10 and paragraph (b)(4) of this section. When exceedances of an emission limit or operating parameter have not occurred, you must include such information in the report. You must submit the report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half. If you report exceedances, you must submit the excess emissions report quarterly until a request to reduce reporting frequency is approved as described in §63.10(e)(3)(ii).

- (4) In the event that an affected unit fails to meet an applicable standard, record and report the following information for each failure:
 - (i) The date, time and duration of the failure.
 - (ii) A list of the affected sources or equipment for which a failure occurred.
 - (iii) An estimate of the volume of each regulated pollutant emitted over any emission limit.
 - (iv) A description of the method used to estimate the emissions.
 - (v) A record of actions taken to minimize emissions in accordance with §63.608(b), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.
- (5) You must submit a summary report containing the information specified in §63.10(e)(3)(vi). You must submit the summary report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half.

In accordance with §63.607(c), the permittee's records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on site, or accessible from a central location by computer or other means that instantly provides access at the site, for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

In accordance with §63.607(d), in computing averages to determine compliance with this subpart, you must exclude the monitoring data specified in paragraphs (d)(1) and (2) of this section.

- (1) Periods of non-operation of the process unit;
- (2) Periods of no flow to a control device; and any monitoring data recorded during CEMS or continuous parameter monitoring system (CPMS) breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable), and high-level adjustments.

In accordance with §63.607(e), within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (e)(1) or (2) of this section.

- (1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<http://www.epa.gov/ttn/chief/ert/index.html>), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (http://cdx.epa.gov/epa_home.asp). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other

commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

- (2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

In accordance with §63.607(f), within 60 days after the date of completing each continuous emissions monitoring system performance evaluation (as defined in §63.2), you must submit the results of the performance evaluation following the procedure specified in either paragraph (f)(1) or (2) of this section.

- (1) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance evaluation data in an electronic file format consistent with the XML schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.
- (2) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

[40 CFR 63.607 a-f]

12.14 40 CFR 63 Subpart AA - § 63.608 General requirements and applicability of general provisions of this part

In accordance with §63.608(a), the permittee must comply with the general provisions in subpart A of this part as specified in appendix A to this subpart.

In accordance with §63.608(b), at all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination by the Administrator of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

In accordance with §63.608(c), for each CMS (including CEMS or CPMS) used to demonstrate compliance with any applicable emission limit or work practice, the permittee must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan according to the requirements specified in paragraphs (c)(1) through (3) of this section. You must submit the site-specific monitoring plan, if requested by the Administrator, at least 60 days before the initial performance evaluation of the CMS. The requirements of this paragraph also apply if a petition is made to the Administrator for alternative monitoring parameters under §63.8(f).

- (1) The permittee must include the information specified in paragraphs (c)(1)(i) through (vi) of this section in the site-specific monitoring plan.
 - (i) Location of the CMS sampling probe or other interface. You must include a justification demonstrating that the sampling probe or other interface is at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device).
 - (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.
 - (iii) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).
 - (iv) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and Table 4 to this subpart.
 - (v) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d)(1) and (2) and Table 5 to this subpart.
 - (vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).
- (2) You must include a schedule for conducting initial and subsequent performance evaluations in the site-specific monitoring plan.
- (3) You must keep the site-specific monitoring plan on site for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If you revise the site-specific monitoring plan, you must keep previous (*i.e.*, superseded) versions of the plan on site to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. You must include the program of corrective action required under §63.8(d)(2) in the plan.

In accordance with §63.608(e), if you use blower design capacity to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio as specified in Table 3 to this subpart, then you must include in the site-specific monitoring plan specified in paragraph (c) of this section calculations showing how you determined the maximum possible gas flow rate through the absorber based on the blower's specifications (including any adjustments you made for pressure drop).

In accordance with §63.608(f), if you use a regression model to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio as specified in Table 3 to this subpart, then you must include in the site-specific monitoring plan specified in paragraph (c) of this section the calculations that were used to develop the regression model, including the calculations you use to convert amperage of the blower to brake horsepower. You must describe any constants included

in the equations (e.g., efficiency, power factor), and describe how these constants were determined. If you want to change a constant in your calculation, then you must conduct a regression model verification to confirm the new value of the constant. In addition, the site-specific monitoring plan must be updated annually to reflect the data used in the annual regression model verification that is described in Table 3 to this subpart.

[40 CFR 63.608 a-c, e, f]

12.15 40 CFR 63 Subpart AA - § 63.610 Exemption from new source performance standards

In accordance with §63.610, any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart T, subpart U, or subpart NN. To be exempt, a source must have a current operating permit pursuant to title V of the Clean Air Act and the source must be in compliance with all requirements of this subpart. For each affected source, this exemption is upon the date that you demonstrate to the Administrator that the requirements of §§63.605 and 63.606 have been met.

[40 CFR 63.610]

12.16 40 CFR 63 Subpart AA - § 63.611 Implementation and enforcement

In accordance with §63.611(a), this subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable state, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a state, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a state, local, or Tribal agency.

In accordance with §63.611(b), the authorities specified in paragraphs (b)(1) through (5) of this section are retained by the Administrator of U.S. EPA and cannot be delegated to State, local, or Tribal agencies.

- (1) Approval of alternatives to the requirements in §§63.600, 63.602, 63.605, and 63.610.
- (2) Approval of requests under §§63.7(e)(2)(ii) and 63.7 (f) for alternative requirements or major changes to the test methods specified in this subpart, as defined in §63.90.
- (3) Approval of requests under §63.8(f) for alternative requirements or major changes to the monitoring requirements specified in this subpart, as defined in §63.90.
- (4) Waiver or approval of requests under §63.10(f) for alternative requirements or major changes to the recordkeeping and reporting requirements specified in this subpart, as defined in §63.90.
- (5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

[40 CFR 63.611 a, b]

13 Emissions Unit Group 10: Reclaim Cooling Tower Cells Plant (Direct Contact) / Evaporative Cooling Towers

Summary Description

The following is a narrative description of the reclaim cooling towers regulated in this Tier I operating permit. This description is for informational purposes only.

This process cools process water from the Phosphoric Acid Plant and Purified Phosphoric Acid Plant Evaporator Condensers in direct-contact cooling towers. There are three cooling towers containing a total of eight cooling tower cells. The north reclaim cooling tower contains two cells (Cell Nos. 7 and 8), the east reclaim cooling tower contains three cells (Cell Nos. 1, 2, and 3), and the west reclaim cooling tower contains three cells (Cell Nos. 4, 5, and 6). The cooling towers use mist-eliminators that reduce particulate matter emissions.

Table 13.1 describes the devices used to control emissions from the reclaim cooling towers.

Table 133.1 Reclaim Cooling Towers Description

Source ID	Emissions Units / Processes	Control Devices
908	North reclaim cooling tower	Mist-eliminator (primary function as process equipment)
909	West reclaim cooling tower	Mist-eliminator (primary function as process equipment)
910	East reclaim cooling tower	Mist-eliminator (primary function as process equipment)

Table 13.2 contains only a summary of the requirements that apply to the reclaim cooling towers. Specific permit requirements are listed below.

Table 133.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
13.1	PM	Process weight rate	IDAPA 58.01.01.701	13.6, 13.8, 13.9
		17.65 lb/hr, 77.31 T/yr for each cell	PTC No. P-2016.0055	
13.2	PM ₁₀	3.53 lb/hr, 15.48 T/yr for each cell	PTC No. P-2016.0055	
13.3	Fluoride	4.9 lb/hr, 21.70 T/yr for each cell	PTC No. P-2016.0055	13.5, 13.6, 13.10
13.4	Inlet streams	No effluent from air pollutant control scrubber	40 CFR 63.602(c)	13.5, 13.7

Emission Limits

13.1 PM Emission Limit

No person shall emit PM to the atmosphere from any process or process equipment commencing operating on or after October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in lb/hr, and PW is the process weight in lb/hr:

- If PW is less than 9,250 lb/hr,
$$E = 0.045(PW)^{0.60}$$
- If PW is equal to or greater than 9,250 lb/hr,
$$E = 1.10(PW)^{0.25}$$

[IDAPA 58.01.01.701, 4/5/00]

13.2 PM Emissions Limit

Particulate matter emissions from each cell of the reclaim cooling towers shall not exceed 17.65 lb/hr and 77.31 T/yr (tons per any consecutive 12 month period). The ton-per-year emissions limit shall be determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the actual hours per year the process(es) venting to this stack operate(s).

[PTC No. P-2016.0055, 8/19/19]

13.3 PM₁₀ Emission Limit

The PM₁₀ emissions from each cell of the reclaim cooling towers shall not exceed 3.53 lb/hr, and 15.48 T/yr (tons per any consecutive 12 month period). The ton-per-year emissions limit shall be determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the actual hours per year the process(es) venting to this stack operate(s).

[PTC No. P-2016.0055, 8/19/19; 40 CFR 52.670 (d), 8/14/06]

13.4 Fluoride Emission Limit

Fluoride emissions from each cell of the reclaim cooling towers shall not exceed 4.9 lb/hr, and 21.70 T/yr (tons per any consecutive 12 month period). The ton-per-year emissions limit shall be determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the actual hours per year the process(es) venting to this stack operate(s).

[PTC No. P-2016.0055, 8/19/19]

Operating Requirements

13.5 40 CFR 63 Subpart AA - § 63.602 Standards and compliance dates

In accordance with §63.602(c), beginning on June 10, 2002, the permittee must not introduce into an existing evaporative cooling tower that commenced construction or reconstruction on or before December 27, 1996, any liquid effluent from any absorber installed to control emissions from process equipment. Beginning on June 10, 1999 or at startup, whichever is later, you must not introduce into a new evaporative cooling tower that commences construction or reconstruction after December 27, 1996, any liquid effluent from any absorber installed to control emissions from process equipment.

[40 CFR 63.602(c)]

13.6 Control Device Operations

The permittee shall operate the mist-eliminator at all times during operation of the reclaim cooling towers and in accordance with the O&M manual.

The permittee shall have developed and submitted to DEQ an O&M manual for the mist-eliminator which describes the procedures that will be followed to comply with the manufacturer specifications for the mist-eliminator and the following:

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 of the mist-eliminator.

At a minimum, the manual shall include:

- Inspection and maintenance schedule
- The items to be inspected

The manual shall be a permittee developed document independent of the manufacturer supplied operating manual.

[PTC No. P-2016.0055, 8/19/19]

13.7 40 CFR 63 Subpart Q - § 63.402 Standard

In accordance with §63.402, no owner or operator of an industrial process cooling tower shall use chromium-based water treatment chemicals in any affected industrial process cooling tower.

[40 CFR 63.402]

Performance Tests and Compliance Procedures

13.8 PM and PM₁₀ Compliance Tests

In and after 2005, for PM and PM₁₀ compliance tests, the permittee shall test two cooling tower cells in each of the three reclaim cooling towers. The permittee shall select different cooling tower cells for testing from year to year until all of the cells within a particular cooling tower have been tested. Once all cells in a cooling tower have been tested, the cell selection process shall start again. The PM₁₀ fraction of the PM emission rate determined during the test shall be determined by multiplying the PM emission rate by a 0.20 conversion factor.

[PTC No. P-2016.0055, 8/19/19]

13.9 Visible Emissions Evaluation

The permittee shall conduct a visible emissions evaluation during each PM₁₀ compliance test. The visible emissions evaluation shall be conducted in accordance with the procedures contained in IDAPA 58.01.01.625.

[PTC No. P-2016.0055, 8/19/19]

13.10 Total Fluorides Compliance Test

To demonstrate compliance with the hourly total fluorides emissions limit, the permittee shall conduct performance testing on three reclaim cooling tower cells during the first six months of the calendar year, and three different reclaim cooling tower cells during the last six months of the calendar year. Testing shall be conducted in such a manner that: 1) at least 60 days separate each set (three cells) of reclaim cooling tower cell tests; 2) testing of the cells is conducted on a rotational basis, such that the permittee shall test different cells until all of the reclaim cooling tower cells have been tested. A total of six reclaim cooling tower cells will be tested in each calendar year. During the next calendar year the two cells not tested previously will be included in the next years testing; and 3) once all of the reclaim cooling tower cells have been tested, the selection process shall start again.

[PTC No. P-2016.0055, 8/19/19]

Compliance Plan and Schedule

13.11 Fluoride Emission Reduction

The permittee shall reduce fluoride emissions by either:

- Replacing the existing reclaim cooling towers with a low emission alternative; or
- Incorporating measures that provide greater than 50% in fluoride emissions reductions from the reclaim cooling towers to demonstrate compliance with the Fluoride in Forage Standards in IDAPA 58.01.01.577 and the requirements appearing below:
 - Using calendar year 2009 – 2014 source testing data for fluoride emissions from the Don Plant’s cooling towers; DEQ has calculated the following baseline fluoride emissions rate, based on the mean across all eight cooling cells:

$$2.61 \frac{\text{lb fluoride per cell}}{\text{hr}} \times 8 \text{ cells} = 20.88 \frac{\text{lb fluoride}}{\text{hr}} \text{ (all cells)}$$

$$20.88 \frac{\text{lb}}{\text{hr}} \times 8,760 \frac{\text{hr}}{\text{yr}} \times \frac{1 \text{ T}}{2,000 \text{ lb}} = 91.5 \frac{\text{T fluoride}}{\text{yr}} \text{ (all cells)}$$

- Using the information above, if Simplot exercises the emissions reduction measures, then it shall reduce the fluoride emissions from its cooling towers by no less than 45.8 T/yr.

[Consent Order, 6/27/16]

13.12 PM₁₀ Monitoring

The permittee shall install, maintain, and operate a PM₁₀ federal equivalent monitor (one BAM) and meteorological monitoring equipment identified by these coordinates (WGS84); latitude: 42°54'48.57" North, and longitude: 112°31'06.30" West. Ambient air quality monitoring shall be performed to collect data on meteorological parameters and ambient concentrations of PM₁₀ pursuant to the following:

- The permittee shall make the PM₁₀ and meteorological monitoring station(s) data accessible to DEQ on a real-time basis via telemetry. All monitoring data shall also be submitted to DEQ in accordance with the ambient monitoring protocol approved by DEQ. The data shall be subject to DEQ quality assurance review. DEQ may make all valid ambient air quality data available to the public.
- The permittee may discontinue maintenance and operation of the PM₁₀ ambient air quality monitor should the monitor not record a violation of the PM₁₀ NAAQS over a continuous three-year period excluding events attributed to an exceptional event as defined by EPA guidance and agreed to by DEQ.
- Should the PM₁₀ ambient air quality monitor record a violation of the PM₁₀ NAAQS, not attributable to an exceptional event as defined in EPA guidance, the permittee shall implement controls within four years and demonstrate attainment of the PM₁₀ NAAQS as expeditiously as practicable, but no later than six years after the monitored violation.

[Consent Order, 6/27/16]

13.13 Revised PM₁₀ Emission Limits

Section 18 of the Tier I, issued on October 24, 2012, requires submittal of a complete PTC application to revise the PM₁₀ emission limits for the Reclaim Cooling Tower Cells Plant (Direct Contact / Evaporative Cooling Towers). In accordance with the Consent Order signed on 6/27/16, Simplot submitted a Remedial Action Plan (RAP) on 6/26/17 and a revised RAP on 6/30/17 which DEQ approved on 7/26/17 to address fluoride emission exceedances and PM₁₀ emission limit exceedances as well as the completion of an ambient impact analysis for PM₁₀.

The permittee shall adhere to the following requirements:

- The requirements and schedules of the DEQ approved RAP;
- On at least an annual basis between October 1 and December 31, DEQ and Simplot shall meet to discuss implementation of the Consent Order and the RAP. The matters to be discussed at the annual meeting include, but are not limited to:
 - The status of existing air monitoring plans and permit requirements;
 - Mutual priorities and progress towards meeting the reduction and permitting requirements of the RAP and the Consent Order;
 - Approaches to address current and predicted compliance activities under DEQ's authority; and
 - Any other items determined necessary to implement the Consent Order.
- The permittee shall obtain necessary permits or amendments or modifications to permits in order to revise and or modify the fluoride emissions standards, operating conditions, and monitoring requirements in the existing permits in order for the control technologies and control strategies implemented as part of the RAP and Consent Order.
- The permittee shall have the fluoride reduction remedy in place, in operation, and achieving the fluoride reductions per the schedule appearing in the DEQ approved RAP.
- Within the timeframes agreed upon in the RAP, the permittee shall submit a modeling protocol for DEQ's review and approval at least sixty days prior to submitting the PTC application and a complete PTC application for the process changes selected under Permit Condition 13.11 and/or any other revisions to be made as a result of and in accordance with the RAP. The PTC application shall include an ambient impact analysis for PM₁₀ in accordance with Idaho's Air Quality Modeling Guideline that assures compliance with IDAPA 58.01.01.203.02.

[Consent Order, 6/27/16]

13.14 Test Method

Method 5 may be substituted for Method 201 provided that Method 202 is also used for condensable particulate matter (PM) and the test results consider all PM to be PM₁₀.

[Consent Order, 6/27/16]

13.15 Fluoride Monitoring

The permittee shall conduct annual fluoride in forage sampling pursuant to Permit Conditions 3.31 and 3.32 during the implementation period of the RAP (the period between 6/27/16 and completion of the actions of the RAP not to exceed ten years).

[Consent Order, 6/27/16]

14 Emissions Unit Group 11: Superphosphoric Acid Plant / Superphosphoric Acid Process Line

Summary Description

The following is a narrative description of the superphosphoric acid plant regulated in this Tier I operating permit. This description is for informational purposes only.

Phosphoric acid from the wet-phosphoric acid production line is heated and concentrated into super phosphoric acid (SPA, with nominal 69% of P_2O_5 content by weight) in evaporators under vacuum. The SPA is oxidized in the reaction vessel, aged in aging tanks, and filtered. NO_x produced during oxidation of SPA is pressurized and processed in the extended absorber system (i.e., extended absorption scrubbers, two in series.) The final SPA is piped to product storage tanks, and is then loaded into trucks or railcars.

Emissions from the evaporators, effluent tank, acid sumps, cooling tanks, the extended absorber system, and other sources of the process are vented to the primary control scrubber. The scrubber water of the primary control scrubber is sent to the condensate pump tank associated with the digester contact barometric condenser or the repulp tank(s).

A detailed description of the SPA process is included as follows:

- Acid evaporation - phosphoric acid from the wet-phosphoric acid production line is heated and concentrated into SPA in the evaporators under vacuum. The vapors from this process are condensed in a non-contact condenser. The remaining vapors and the vapors from the evaporator feed tank are vented to the primary control scrubber to capture fluoride emissions prior to discharging to the atmosphere.
- Acid oxidation - SPA is sent to a reaction vessel where residual impurities are oxidized by nitric acid. The NO_x produced during oxidation, in both the reactor vessel, first stage aging tank, and second stage aging tank, is collected, pressurized, and then processed in the extended absorber system. The emissions from the extended absorption system are vented to the primary control scrubber prior to discharging to the atmosphere.
- Acid aging and cooling - SPA is aged in multiple aging tanks and cooled in heat exchangers. The aging allows time for residual reactions to complete. Fumes from the first and second stage aging tank are vented to the extended absorber system prior to discharging to the atmosphere.
- Acid Filtration - cooled SPA is delivered to filters where solids are separated from the acid under pressure. The product SPA is piped to the filter product storage tanks. Tank emissions are routed to the primary scrubber.

Table 14.1 describes the devices used to control emissions from the SPA plant.

Table 14.1 SPA Plant Description

Source ID	Emissions Units / Processes	Source Description	Control Devices
1102.0	Product tank	SPA plant/storage	Primary control scrubber
1108.1	Evaporators	SPA plant/process equipment	Non-contact condenser and primary control scrubber
1108.2	Sump No. 6	SPA plant/process equipment	Primary control scrubber
1109.0	Oxidizer	SPA plant/purification	Extended absorber system and primary control scrubber
1111.0	SPA aging tanks	SPA plant/purification	Primary control scrubber
1112.0	Evaporator feed tank	SPA plant/storage	Primary control scrubber
1113.0	Effluent tank	SPA plant	Primary control scrubber
1506.0	Deflo-dilution tank	SPA plant/storage	None

Table 14.2 contains only a summary of the requirements that apply to the SPA plant. Specific permit requirements are listed below.

Table 14.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
14.1	NO _x	0.10 lb/hr, 0.40 T/yr	PTC No. P-2016.0055	14.3, 14.4
14.2	CO	4.2 lb/hr, 18.3 T/yr	PTC No. P-2016.0055	14.5
14.7	Fluorides	0.010 lb/T P ₂ O ₅ feed	40 CFR 63.602(a)(1)	14.8 – 14.13

Emission Limits

14.1 NO_x Emission Limit

Emissions of NO_x from the SPA oxidation process shall not exceed 0.10 lb/hr and 0.40 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

14.2 CO Emission Limit

Emissions of CO from the SPA oxidation process shall not exceed 4.2 lb/hr and 18.3 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19]

Operating Requirements

14.3 Extended Absorber System

The extended absorber system shall be operated according to Simplot's Standard Operating Procedures (SOPs) for the extended absorber system.

[PTC No. P-2016.0055, 8/19/19]

14.4 Absorber System Maintenance

Maintenance on the extended absorber system shall be performed when visible emissions from the system exceed 10% opacity for no more than three minutes aggregate in any 60-minute period, as determined using the procedures in IDAPA 58.01.01.625.04.

[PTC No. P-2016.0055, 8/19/19]

Monitoring Requirements

14.5 CO Emissions

The permittee shall calculate emissions using emissions factor of 0.042 lb CO/ton of equivalent P₂O₅ feed obtained during December 9, 2004 source testing to demonstrate compliance with the CO limits in Permit Condition 14.3. The lb/hr shall be determined by multiplying the emissions factor by the actual or allowable equivalent P₂O₅ feed rate of the superphosphoric acid plant. The ton-per-year rate shall be determined by multiplying the actual pound-per-hour emission rate by the actual hours per year the process(es) venting to the stack operate(s).

[PTC No. P-2016.0055, 8/19/19]

40 CFR 63 Subpart AA – National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants

14.6 40 CFR 63 Subpart AA - § 63.600 Applicability

In accordance with §63.600(b)(5), the requirements of this subpart apply to emissions of hazardous air pollutants (HAP) emitted from each superphosphoric acid process line. A superphosphoric acid process line is any process line that concentrates wet-process phosphoric acid to 66 percent or greater P₂O₅ content by weight and includes evaporators, hot wells, acid sumps, oxidation reactors, and cooling tanks.

[40 CFR 63.600 (b)(5)]

14.7 40 CFR 63 Subpart AA - § 63.602 Standards and compliance dates

In accordance with §63.602(a)(1), for each existing wet-process phosphoric acid process line, superphosphoric acid process line, and phosphate rock dryer that commenced construction or reconstruction on or before December 27, 1996, the permittee must comply with the emission limit specified in Table 1 to this subpart beginning on June 10, 2002, for total fluorides of 0.010 lb/ton of equivalent P₂O₅ feed. Beginning on August 19, 2018, the permittee must include oxidation reactors in superphosphoric acid process lines when determining compliance with the total fluorides limit.

In accordance with §63.602(c), beginning on June 10, 2002, the permittee must not introduce into an existing evaporative cooling tower that commenced construction or reconstruction on or before December 27, 1996, any liquid effluent from any absorber installed to control emissions from process equipment. Beginning on June 10, 1999 or at startup, whichever is later, you must not introduce into a new evaporative cooling tower that commences construction or reconstruction after December 27, 1996, any liquid effluent from any absorber installed to control emissions from process equipment.

In accordance with §63.602(f), beginning on August 19, 2015, during periods of startup and shutdown (as defined in §63.601), the permittee must comply with the work practice specified in this paragraph in lieu of the emission limits specified in paragraph (a) of this section. During periods of startup and shutdown, the permittee must operate any control device(s) being used at the affected source, monitor the operating parameters specified in Table 3 of this subpart, and comply with the operating limits specified in Table 4 of this subpart.

[40 CFR 63.602 a, c, f]

14.8 40 CFR 63 Subpart AA - § 63.605 Operating and monitoring requirements

In accordance with §63.605(a), for each wet-process phosphoric acid process line or superphosphoric acid process line subject to the provisions of this subpart, the permittee must comply with the monitoring requirements specified in paragraphs (a)(1) and (2) of this section.

- (1) Install, calibrate, maintain, and operate a continuous monitoring system (CMS) according to your site-specific monitoring plan specified in §63.608(c). The CMS must have an accuracy of ± 5 percent over its operating range and must determine and permanently record the mass flow of phosphorus-bearing material fed to the process.
- (2) Maintain a daily record of equivalent P_2O_5 feed. Calculate the equivalent P_2O_5 feed by determining the total mass rate, in metric ton/hour of phosphorus bearing feed, using the monitoring system specified in paragraph (a)(1) of this section and the procedures specified in §63.606(f)(3).

In accordance with §63.605(d), if you use a control device(s) to comply with the emission limits specified in Table 1 or 2 of this subpart, the permittee must install a continuous parameter monitoring system (CPMS) and comply with the requirements specified in paragraphs (d)(1) through (5) of this section.

- (1) The permittee must monitor the operating parameter(s) applicable to the control device that you use as specified in Table 3 to this subpart and establish the applicable limit or range for the operating parameter limit as specified in paragraphs (d)(1)(i) and (ii) of this section, as applicable. Table 14.3 provides a summary of the applicable requirements in Table 3 of the subpart.

Table 14.3 Summary of Monitoring Equipment Monitoring Parameters

You must ...	If ...	And you must monitor ...^(a)	And ...^(a)
Install a continuous parameter monitoring system (CPMS) for liquid flow at the inlet of the absorber	Your absorber is designed and operated with pressure drops of 5 inches of water column or more; and you choose to monitor only the influent liquid flow, rather than the liquid-to-gas ratio	Influent liquid flow	
Install CPMS for liquid and gas flow at the inlet of the absorber ^(b)	Your absorber is designed and operated with pressure drops of 5 inches of water column or less; or Your absorber is designed and operated with pressure drops of 5 inches of water column or more, and you choose to monitor the liquid-to-gas ratio, rather than only the influent liquid flow, and you want the ability to lower liquid flow with changes in gas flow	Liquid-to-gas ratio as determined by dividing the influent liquid flow rate by the gas flow rate through the absorber. The units of measure must be consistent with those used to calculate this ratio during the performance test	You must determine the gas flow rate through the absorber by: Measuring the gas flow rate at the absorber inlet or outlet; Using the blower design capacity, with appropriate adjustments for pressure drop; ^(c) or Using a regression model. ^(d)
Install CPMS for pressure at the gas stream inlet and outlet of the absorber	Your absorber is designed and operated with pressure drops of 5 inches of water column or more	Pressure drop through the absorber	You may measure the pressure of the inlet gas using amperage on the blower if a correlation between pressure and amperage is established

- a) To monitor an operating parameter that is not specified in this table (including process-specific techniques not specified in this table to determine gas flow rate through an absorber), you must request, on a site-specific basis, an alternative monitoring method under the provisions of §63.8(f).
- b) For new sources that commence construction or reconstruction after August 19, 2015, the compliance date is immediately upon startup. For existing sources, and new sources that commence construction or reconstruction after December 27, 1996, and on or before August 19, 2015, if your absorber is designed and operated with pressure drops of 5 inches of water column or less, then the compliance date is August 19, 2018. In the interim, for existing sources, and new sources that commence construction or reconstruction after December 27, 1996, and on or before August 19, 2015, with an absorber designed and operated with pressure drops of 5 inches of water column or less, you must comply with one of the following: (i) The monitoring requirements in this Table 3 for absorbers designed and operated with pressure drops of 5 inches of water column or less; (ii) the applicable monitoring provisions included in a permit issued under 40 CFR part 70 to assure

compliance with subpart AA; (iii) the applicable monitoring provisions of an Alternative Monitoring Plan approved pursuant to §63.8(f); or (iv) install CPMS for pressure at the gas stream inlet and outlet of the absorber, and monitor pressure drop through the absorber.

- c) If you select this option, then you must comply with §63.608(e). The option to use blower design capacity is intended to establish the maximum possible gas flow through the absorber; and is available regardless of the location of the blower (influent or effluent), as long as the gas flow rate through the absorber can be established. Establish the minimum liquid-to-gas ratio operating limit by dividing the minimum liquid flow rate to the absorber (determined during a performance test) by the maximum possible gas flow rate through the absorber (determined using blower design capacity).
- d) If you select this option, then you must comply with §63.608(f). The regression model must be developed using direct measurements of gas flow rate, and design fan curves that correlate gas flow rate to static pressure (*i.e.*, fan suction pressure) and brake horsepower of the blower. You must conduct an annual regression model verification using direct measurements of gas flow rate to ensure the correlation remains accurate. Direct measurements of gas flow rate used to develop or verify regression models may be collected during, or separately from, the annual performance testing that is required in §63.606(b).

- (i) Except as specified in paragraph (d)(1)(ii) of this section, determine the value(s) as the arithmetic average of operating parameter measurements recorded during the three test runs conducted for the most recent performance test.

- (ii) If you use an absorber or a wet electrostatic precipitator to comply with the emission limits in Table 1 or 2 to this subpart and you monitor pressure drop across the absorber or secondary voltage for a wet electrostatic precipitator, you must establish allowable ranges using the methodology specified in paragraphs (d)(1)(ii)(A) and (B) of this section.

- (A) The allowable range for the daily averages of the pressure drop across an absorber and of the flow rate of the absorber liquid to each absorber in the process absorbing system, or secondary voltage for a wet electrostatic precipitator, is ± 20 percent of the baseline average value determined in paragraph (d)(1)(i) of this section. The Administrator retains the right to reduce the ± 20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ± 10 percent under any instance.

- (B) As an alternative to paragraph (d)(1)(ii)(A) of this section, you may establish allowable ranges for the daily averages of the pressure drop across an absorber, or secondary voltage for an electrostatic precipitator, for the purpose of assuring compliance with this subpart using the procedures described in this paragraph. You must establish the allowable ranges based on the baseline average values recorded during previous performance tests, or the results of performance tests conducted specifically for the purposes of this paragraph. You must conduct all performance tests using the methods specified in §63.606. You must certify that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges. When a source using the methodology of this paragraph is retested, you must determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges.

- (2) The permittee must monitor, record, and demonstrate continuous compliance using the minimum frequencies specified in Table 4 to this subpart. Table 14.4 provides a summary of the applicable requirements in Table 4 of the subpart.

Table 14.4 Summary of Calibration and Quality Control Requirements for CPMS

For the operating parameter applicable to you, as specified in Table 3 . . .	You must establish the following operating limit . . .	And you must monitor, record, and demonstrate continuous compliance using these minimum frequencies . . .		
		Data measurement	Data recording	Data averaging period for compliance
Absorbers (Wet Scrubbers)				
Influent liquid flow	Minimum inlet liquid flow	Continuous	Every 15 minutes	Daily
Influent liquid flow rate and gas stream flow rate	Minimum influent liquid-to-gas ratio ^a	Continuous	Every 15 minutes	Daily
Pressure drop	Pressure drop range	Continuous	Every 15 minutes	Daily

(3) The permittee must comply with the calibration and quality control requirements that are applicable to the operating parameter(s) you monitor as specified in Table 5 to this subpart. Table 14.5 provides a summary of the applicable requirements in Table 5 of the subpart.

Table 14.5 Summary of Calibration and Quality Control Requirements for CPMS^(a)

If you monitor this parameter . . .	Your accuracy requirements are . . .	And your calibration requirements are . . .
Temperature	±1 percent over the normal range of temperature measured or 2.8 degrees Celsius (5 degrees Fahrenheit), whichever is greater, for non-cryogenic temperature ranges ±2.5 percent over the normal range of temperature measured or 2.8 degrees Celsius (5 degrees Fahrenheit), whichever is greater, for cryogenic temperature ranges	Performance evaluation annually and following any period of more than 24 hours throughout which the temperature exceeded the maximum rated temperature of the sensor, or the data recorder was off scale. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant temperature sensor. Selection of a representative measurement location.
Flow Rate	±5 percent over the normal range of flow measured or 1.9 liters per minute (0.5 gallons per minute), whichever is greater, for liquid flow rate ±5 percent over the normal range of flow measured or 280 liters per minute (10 cubic feet per minute), whichever is greater, for gas flow rate ±5 percent over the normal range measured for mass flow rate	Performance evaluation annually and following any period of more than 24 hours throughout which the flow rate exceeded the maximum rated flow rate of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant flow sensor. Selection of a representative measurement location where swirling flow or abnormal velocity distributions due to upstream and downstream disturbances at the point of measurement are minimized.
Pressure	±5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater	Checks for obstructions (<i>e.g.</i> , pressure tap pluggage) at least once each process operating day. Performance evaluation annually and following any period of more than 24 hours throughout which the pressure exceeded the maximum rated pressure of the sensor, or the data recorder was off scale. Checks of all mechanical connections for

If you monitor this parameter . . .	Your accuracy requirements are . . .	And your calibration requirements are . . .
		leakage monthly. Visual inspection of all components for integrity, oxidation and galvanic corrosion every 3 months, unless the CPMS has a redundant pressure sensor. Selection of a representative measurement location that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

a) If you select the regression model option to monitor influent liquid-to-gas ratio as described in Table 3 to this subpart, then you must also continuously monitor (*i.e.*, record every 15 minutes, and use a daily averaging period) blower amperage, blower static pressure (*i.e.*, fan suction pressure), and any other parameters used in the regression model that are not constants.

- (4) If the permittee uses a non-regenerative adsorption system to achieve the mercury emission limits specified in Table 1 or 2 to this subpart, you must comply with the requirements specified in paragraph (e) of this section.

[40 CFR 63.605 a, d]

14.9 40 CFR 63 Subpart AA - § 63.606 Performance tests and compliance provisions

In accordance with §63.606(a), after the permittee conducts the initial performance test specified in paragraph (a) of this section, the permittee must conduct a performance test once per calendar year.

In accordance with §63.606(d),

- (1) The permittee must conduct the performance tests specified in this section at representative (normal) conditions for the process. Representative (normal) conditions means those conditions that:
 - (i) Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and
 - (ii) Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition. Operations during startup, shutdown, and malfunction do not constitute representative (normal) operating conditions for purposes of conducting a performance test.
- (2) The permittee must record the process information that is necessary to document the operating conditions during the test and include in such record an explanation to support that such conditions represent representative (normal) conditions. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

In accordance with §63.606(e), in conducting all performance tests, the permittee must use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in §63.7(f).

In accordance with §63.606(f), the permittee must determine compliance with the applicable total fluorides standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (f)(1) through (3) of this section.

- (1) Compute the emission rate (E) of total fluorides for each run using Equation AA-1:

$$E = \left(\sum_{i=1}^N C_i Q_i \right) / (PK) \quad (\text{Eq. AA-1})$$

Where:

E = Emission rate of total fluorides, gram/metric ton (pound/ton) of equivalent P₂O₅ feed.

C_i = Concentration of total fluorides from emission point “i,” milligram/dry standard cubic meter (milligram/dry standard cubic feet).

Q_i = Volumetric flow rate of effluent gas from emission point “i,” dry standard cubic meter/hour (dry standard cubic feet/hour).

N = Number of emission points associated with the affected facility.

P = Equivalent P₂O₅ feed rate, metric ton/hour (ton/hour).

K = Conversion factor, 1000 milligram/gram (453,600 milligram/pound).

- (2) The permittee must use Method 13A or 13B (40 CFR part 60, appendix A) to determine the total fluorides concentration (C_i) and the volumetric flow rate (Q_i) of the effluent gas at each emission point. The sampling time for each run at each emission point must be at least 60 minutes. The sampling volume for each run at each emission point must be at least 0.85 dscm (30 dscf). If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4 in Method 13 A, may be omitted.
- (3) Compute the equivalent P₂O₅ feed rate (P) using Equation AA-2:

$$P = M_p R_p \quad (\text{Eq. AA-2})$$

Where:

P = P₂O₅ feed rate, metric ton/hr (ton/hour).

M_p = Total mass flow rate of phosphorus-bearing feed, metric ton/hour (ton/hour).

R_p = P₂O₅ content, decimal fraction.

- (i) Determine the mass flow rate (M_p) of the phosphorus-bearing feed using the measurement system described in §63.605(a).
- (ii) Determine the P₂O₅ content (R_p) of the feed using, as appropriate, the following methods specified in Methods Used and Adopted By The Association of Florida Phosphate Chemists (incorporated by reference, see §63.14) where applicable:
 - (A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.
 - (B) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method A—Volumetric Method.
 - (C) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method B—Gravimetric Quimociac Method.
 - (D) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method C—Spectrophotometric Method.

(E) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method A—Volumetric Method.

(F) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method B—Gravimetric Quimociac Method.

(G) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method C—Spectrophotometric Method.

[40 CFR 63.606 a, d-f]

14.10 40 CFR 63 Subpart AA - § 63.607 Notification, recordkeeping, and reporting requirements

In accordance with §63.607(a), the permittee must comply with the notification requirements specified in §63.9. During the most recent performance test, if you demonstrate compliance with the emission limit while operating your control device outside the previously established operating limit, you must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test. When a source is retested and the performance test results are submitted to the Administrator pursuant to paragraph (b)(1) of this section, §63.7(g)(1), or §63.10(d)(2), you must indicate whether the operating limit is based on the new performance test or the previously established limit. Upon establishment of a new operating limit, you must thereafter operate under the new operating limit. If the Administrator determines that you did not conduct the compliance test in accordance with the applicable requirements or that the operating limit established during the performance test does not correspond to representative (normal) conditions, you must conduct a new performance test and establish a new operating limit.

In accordance with §63.607(b), the permittee must comply with the reporting and recordkeeping requirements in §63.10 as specified in paragraphs (b)(1) through (5) of this section.

- (1) You must comply with the general recordkeeping requirements in §63.10(b)(1).
- (2) As required by §63.10(d), the permittee must report the results of the initial and subsequent performance tests as part of the notification of compliance status required in §63.9(h). You must verify in the performance test reports that the operating limits for each process have not changed or provide documentation of revised operating limits established according to §63.605, as applicable. In the notification of compliance status, you must also:
 - (i) Certify to the Administrator annually that you have complied with the evaporative cooling tower requirements specified in §63.602(c).
 - (ii) Submit analyses and supporting documentation demonstrating conformance with the Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see §63.14) and specifications for bag leak detection systems as part of the notification of compliance status report.
 - (iv) If you elect to demonstrate compliance by following the procedures in §63.605(d)(1)(ii)(B), certify to the Administrator annually that the control devices and processes have not been modified since the date of the

performance test from which you obtained the data used to establish the allowable ranges.

- (3) As required by §63.10(e)(3), you must submit an excess emissions report for any exceedance of an emission limit, work practice standard, or operating parameter limit if the total duration of the exceedances for the reporting period is 1 percent of the total operating time for the reporting period or greater. The report must contain the information specified in §63.10 and paragraph (b)(4) of this section. When exceedances of an emission limit or operating parameter have not occurred, you must include such information in the report. You must submit the report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half. If you report exceedances, you must submit the excess emissions report quarterly until a request to reduce reporting frequency is approved as described in §63.10(e)(3)(ii).
- (4) In the event that an affected unit fails to meet an applicable standard, record and report the following information for each failure:
 - (i) The date, time and duration of the failure.
 - (ii) A list of the affected sources or equipment for which a failure occurred.
 - (iii) An estimate of the volume of each regulated pollutant emitted over any emission limit.
 - (iv) A description of the method used to estimate the emissions.
 - (v) A record of actions taken to minimize emissions in accordance with §63.608(b), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.
- (5) You must submit a summary report containing the information specified in §63.10(e)(3)(vi). You must submit the summary report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half.

In accordance with §63.607(c), the permittee's records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on site, or accessible from a central location by computer or other means that instantly provides access at the site, for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

In accordance with §63.607(d), in computing averages to determine compliance with this subpart, you must exclude the monitoring data specified in paragraphs (d)(1) and (2) of this section.

- (1) Periods of non-operation of the process unit;
- (2) Periods of no flow to a control device; and any monitoring data recorded during CEMS or continuous parameter monitoring system (CPMS) breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable), and high-level adjustments.

In accordance with §63.607(e), within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (e)(1) or (2) of this section.

- (1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<http://www.epa.gov/ttn/chief/ert/index.html>), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (http://cdx.epa.gov/epa_home.asp). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.
- (2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

In accordance with §63.607(f), within 60 days after the date of completing each continuous emissions monitoring system performance evaluation (as defined in §63.2), the permittee must submit the results of the performance evaluation following the procedure specified in either paragraph (f)(1) or (2) of this section.

- (1) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance evaluation data in an electronic file format consistent with the XML schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.
- (2) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

[40 CFR 63.607 a-f]

14.11 40 CFR 63 Subpart AA - § 63.608 General requirements and applicability of general provisions of this part

In accordance with §63.608(a), the permittee must comply with the general provisions in subpart A of this part as specified in appendix A to this subpart.

In accordance with §63.608(b), at all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination by the Administrator of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

In accordance with §63.608(c), for each CMS (including CEMS or CPMS) used to demonstrate compliance with any applicable emission limit or work practice, the permittee must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan according to the requirements specified in paragraphs (c)(1) through (3) of this section. You must submit the site-specific monitoring plan, if requested by the Administrator, at least 60 days before the initial performance evaluation of the CMS. The requirements of this paragraph also apply if a petition is made to the Administrator for alternative monitoring parameters under §63.8(f).

- (1) The permittee must include the information specified in paragraphs (c)(1)(i) through (vi) of this section in the site-specific monitoring plan.
 - (i) Location of the CMS sampling probe or other interface. You must include a justification demonstrating that the sampling probe or other interface is at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).
 - (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.
 - (iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).
 - (iv) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and Table 4 to this subpart.
 - (v) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d)(1) and (2) and Table 5 to this subpart.
 - (vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).
- (2) You must include a schedule for conducting initial and subsequent performance evaluations in the site-specific monitoring plan.
- (3) You must keep the site-specific monitoring plan on site for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If you revise the site-specific monitoring plan, you must keep previous (*i.e.*, superseded) versions

of the plan on site to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. You must include the program of corrective action required under §63.8(d)(2) in the plan.

In accordance with §63.608(e), if you use blower design capacity to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio as specified in Table 3 to this subpart, then you must include in the site-specific monitoring plan specified in paragraph (c) of this section calculations showing how you determined the maximum possible gas flow rate through the absorber based on the blower's specifications (including any adjustments you made for pressure drop).

In accordance with §63.608(f), if you use a regression model to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio as specified in Table 3 to this subpart, then you must include in the site-specific monitoring plan specified in paragraph (c) of this section the calculations that were used to develop the regression model, including the calculations you use to convert amperage of the blower to brake horsepower. You must describe any constants included in the equations (e.g., efficiency, power factor), and describe how these constants were determined. If you want to change a constant in your calculation, then you must conduct a regression model verification to confirm the new value of the constant. In addition, the site-specific monitoring plan must be updated annually to reflect the data used in the annual regression model verification that is described in Table 3 to this subpart.

[40 CFR 63.608 a-c, e, f]

14.12 40 CFR 63 Subpart AA - § 63.610 Exemption from new source performance standards

In accordance with §63.610, any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart T, subpart U, or subpart NN. To be exempt, a source must have a current operating permit pursuant to title V of the Clean Air Act and the source must be in compliance with all requirements of this subpart. For each affected source, this exemption is upon the date that you demonstrate to the Administrator that the requirements of §§63.605 and 63.606 have been met.

[40 CFR 63.610]

14.13 40 CFR 63 Subpart AA - § 63.611 Implementation and enforcement

In accordance with §63.611(a), this subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable state, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a state, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a state, local, or Tribal agency.

In accordance with §63.611(b), the authorities specified in paragraphs (b)(1) through (5) of this section are retained by the Administrator of U.S. EPA and cannot be delegated to State, local, or Tribal agencies.

- (1) Approval of alternatives to the requirements in §§63.600, 63.602, 63.605, and 63.610.
- (2) Approval of requests under §§63.7(e)(2)(ii) and 63.7 (f) for alternative requirements or major changes to the test methods specified in this subpart, as defined in §63.90.
- (3) Approval of requests under §63.8(f) for alternative requirements or major changes to the monitoring requirements specified in this subpart, as defined in §63.90.

- (4) Waiver or approval of requests under §63.10(f) for alternative requirements or major changes to the recordkeeping and reporting requirements specified in this subpart, as defined in §63.90.
- (5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

[40 CFR 63.611 a, b]

15 Emissions Unit Group 12: Sulfuric Acid Plant No. 300

Summary Description

The following is a narrative description of the processes at sulfuric acid plant No. 300 regulated in this Tier I operating permit. This description is for informational purposes only.

The single-contact process in the sulfuric acid plant No. 300 begins with burning elemental sulfur in a furnace to produce SO₂. The SO₂ is oxidized to SO₃ in a converter. The SO₃ gas stream is passed through an absorber unit where it is absorbed in less concentrated sulfuric acid (approximately 93%) which allows absorption of the SO₃ to form more concentrated sulfuric acid. The exhaust from the absorbing tower is treated with a DynaWave® reverse-jet scrubber followed by an AmmSOx packed-bed ammonia scrubber to remove SO₂.

The DynaWave® SO₂ scrubber is a vertical gas/liquid contact barrel and spray jet, connected to a vertical/cylindrical disengagement vessel. Process gas from the absorbing tower enters the top of the vertical DynaWave® barrel and collides with a jet of circulating liquid, which is injected upward through a large bore nozzle. A region of highly turbulent flow and mixing is created at the point the liquid is reversed by the gas. The gas and scrubbing solution enter the disengagement vessel where the gas and liquid are separated. A circulation pump circulates the scrubbing liquid back to the DynaWave® nozzle and pumps the product liquor to the acidifier and stripping tower. Process gas passes through the demister and out of the disengagement vessel. The DynaWave® scrubber removes most of the SO₂ from the process gas before entering the AmmSOx scrubber.

Gas leaving the DynaWave® scrubber enters the AmmSOx packed tower scrubber where further scrubbing is performed. The AmmSOx scrubber consists of a packed scrubbing tower, retention chamber, scrubber circulation pumps, and demister section. The scrubber system also contains a stripping system that recovers the scrubbed SO₂ for recycling to the drying tower. The gas exits the packed tower through the mist eliminator and proceeds to the plant stack.

Table 15.1 describes the devices used to control emissions from sulfuric acid plant No. 300.

Table 155.1 Sulfuric Acid Plant No. 300 Description

Emissions Units / Processes	Control Devices
Sulfuric acid plant No. 300	DynaWave reverse-jet scrubber followed by Ammsox packed-bed ammonia scrubber and mist eliminator

Table 15.2 contains only a summary of the requirements that apply to the sulfuric acid plant No. 300. Specific permit requirements are listed below.

Table 155.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
15.6	NO _x	16.0 lb/hr	PTC No. P-2016.0055	15.15 – 15.17, 15.24, 15.26, 15.29, 15.30, 15.32 – 15.33
15.7		64 T/yr	PTC No. P-2016.0055	
15.8	PM	Process weight rate	IDAPA 58.01.01.701	15.15 – 15.17, 15.24, 15.27, 15.29, 15.30, 15.32 – 15.33, 15.37, 15.40 – 15.52
15.9	PM ₁₀	11.4 lb/hr, 49.8 T/yr	PTC No. P-2016.0055	
15.10	SO ₂	2.5 lb/T – short-term limit	PTC No. P-2016.0055	15.15 – 15.25, 15.29, 15.30, 15.32 – 15.36, 15.38
		1.5 lb/T – long-term limit	PTC No. P-2016.0055	
15.11		4.0 lb/T of 100% H ₂ SO ₄ produced	PTC No. P-2016.0055; 40 CFR 60.82	
		28 lb/T of 100% H ₂ SO ₄ produced	IDAPA 58.01.01.846	
		170 lb/hr – three hour average 750 T/yr	PTC No. P-2016.0055	
15.12	H ₂ SO ₄ mist	3 lb/hour--24-hr average, 13 T/yr 0.15 lb/T of 100% H ₂ SO ₄ produced	PTC No. P-2016.0055; 40 CFR 60.83(a)(1)	15.16 – 15.18, 15.24, 15.25, 15.29, 15.30, 15.32 – 15.37, 15.39, 15.42 – 15.52
15.13	NH ₃	2.5 lb/hr, 11 T/yr	PTC No. P-2016.0055	15.15 – 15.17, 15.24, 15.28 – 15.30, 15.32 – 15.33
15.14	Opacity	10%	PTC No. P-2016.0055; 40 CFR 60.83(a)(2)	15.29, 15.31
15.15	100% H ₂ SO ₄ Throughput	1,750 T/day – rolling 24-hr average	PTC No. P-2016.0055	15.32

15.1 Consent Decree with the U.S. EPA

Limits, requirements, and restrictions with citations to the Consent Decree (CD) were established pursuant to a Consent Decree with U.S. EPA and shall not be deleted or modified without the U.S. EPA approval.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

Definitions

15.2 Startup

For purposes of the limits in this section of the permit, “Startup” shall mean the setting in operation of a Sulfuric Acid Plant for any purpose, consistent with 40 C.F.R. §60.2. With respect to any Sulfuric Acid Plant, startup begins at the time the feed of elemental sulfur to the furnace commences and lasts no more than 4 hours.

[PTC No. P-2016.0055, 8/19/19]

15.3 Shutdown

For purposes of the limits in this section of the permit, “Shutdown” shall mean the cessation of operation of a Sulfuric Acid Plant for any purpose, consistent with 40 C.F.R. §60.2. With respect to any Sulfuric Acid Plant, shutdown begins at the time the feed of elemental sulfur to the furnace ceases and ends 3 hours later or when the blower is turned off, whichever is earlier.

[PTC No. P-2016.0055, 8/19/19]

15.4 Malfunction

For purposes of the limits in this section of the permit, "Malfunction" shall mean any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner, but shall not include failures that are caused in part by poor maintenance or careless operation, consistent with 40 C.F.R. §60.2.

[PTC No. P-2016.0055, 8/19/19]

15.5 Consent Decree

Consent Decree (CD) shall mean *USA et al. v. J.R. Simplot Company*, Case No. 1:15-cv-00562-CWD (Dist. Idaho 2015). In any permit action after April 12, 2016 (effective date of the CD), the permittee shall adjust the baseline actual emissions downward to eliminate any portion of SO₂ emissions that would have exceeded the SO₂ emission limitation in the CD, that have also been incorporated in Permit Conditions 15.10 and 16.9, for the #300 and #400 sulfuric acid plants respectively.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

Emission Limits

15.6 RACT NO_x Emission Limit

Emissions of NO_x from the No. 300 sulfuric acid plant stack shall not exceed 16.0 lb/hr based on a 24-hour average.

[PTC No. P-2016.0055, 8/19/19; 40 CFR 52.670(d), 8/14/06]

15.7 Annual NO_x Emission Limit

Emissions of NO_x from the No. 300 sulfuric acid plant stack shall not exceed 64 tons per any consecutive 12 month period.

[PTC No. P-2016.0055, 8/19/19]

15.8 PM Emission Limit

No person shall emit PM to the atmosphere from any process or process equipment commencing operating on or after October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in lb/hr, and PW is the process weight in lb/hr:

- If PW is less than 9,250 lb/hr,
$$E = 0.045(PW)^{0.60}$$
- If PW is equal to or greater than 9,250 lb/hr,
$$E = 1.10(PW)^{0.25}$$

[IDAPA 58.01.01.701, 4/5/00]

15.9 RACT PM₁₀ Emission Limit

Emissions of PM₁₀ from the No. 300 sulfuric acid plant stack shall not exceed 11.4 lb/hr based on a 24-hour average and 49.8 T/yr (tons per any consecutive 12 month period).

[PTC No. P-2016.0055, 8/19/19; 40 CFR 52.670 (d), 8/14/06]

15.10 Consent Decree (CD) SO₂ Emission Limits

- Emissions of SO₂ from the No. 300 sulfuric acid plant stack shall not exceed 2.5 lb/T of 100% sulfuric acid produced on a rolling 3-hour average basis, except during periods of start-up, shutdown, or malfunction.
- Emissions of SO₂ from the No. 300 sulfuric acid plant stack shall not exceed 1.5 lb/T of 100% sulfuric acid produced on a rolling 365-day average basis including periods of start-up, shutdown, or malfunction.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

15.11 SO₂ Emission Limit

Emissions of SO₂ from the No. 300 sulfuric acid plant stack shall not exceed 4.0 lb/T of 100% sulfuric acid produced.

Emissions of SO₂ shall not exceed 170 lb/hr calculated as a three-hour rolling average and 750 tons per any consecutive 12-month period.

Emissions of SO₂ shall not exceed 28 lb/T of 100% sulfuric acid produced in accordance with IDAPA 58.01.01.846.

[PTC No. P-2016.0055, 8/19/19; 40 CFR 60.82; IDAPA 58.01.01.846, 4/5/00]

15.12 Sulfuric Acid Mist Emission Limit

Emissions of sulfuric acid mist (as total H₂SO₄) shall not exceed 3 lb/hr calculated as a 24-hour rolling average and shall not exceed 13 tons per any consecutive 12-month period.

Emissions of acid mist shall not exceed 0.15 lb/T of sulfuric acid produced, expressed as 100% H₂SO₄ in accordance with 40 CFR 60.83(a)(1).

[40 CFR 60.83(a)(1), PTC No. P-2016.0055, 8/19/19]

15.13 Ammonia Emission Limit

Emissions of NH₃ shall not exceed 2.5 lb/hr and 11 tons per any consecutive 12 month period.

[PTC No. P-2016.0055, 8/19/19]

15.14 Opacity Limit

In accordance with 40 CFR 60.83(a)(2), emissions from the No. 300 sulfuric acid plant stack shall not exceed 10% opacity as determined by following EPA Reference Method 9. In accordance with 40 CFR 60.11(c), the opacity standards set forth here shall apply at all times except during periods of startup, shutdown, and malfunction. In accordance with 40 CFR 60.11(b), for purposes of initial compliance, the minimum total time of observations shall be three hours (a total of 30 six-minute averages) using EPA Reference Method 9.

[40 CFR 60.83(a)(2); 40 CFR 60.11 (b)&(c); PTC No. P-2016.0055, 8/19/19]

Operating Requirements

15.15 Production Limit

The maximum production rate of the sulfuric acid plant No. 300 shall not exceed 1,750 tons of 100% sulfuric acid per day calculated as a rolling 24-hour average.

[PTC No. P-2016.0055, 8/19/19]

15.16 Scrubber System

The two-stage scrubber system shall be used to control pollution from the sulfuric acid plant No. 300 process at all times the plant is operating. The two stages shall include the packed-bed scrubber and the DynaWave reverse-jet scrubber operated in series. Within 60 days following startup, the permittee will develop an O&M manual for the two-stage scrubber. The O&M manual shall be kept on site at all times and shall be made available to DEQ representatives upon request.

[PTC No. P-2016.0055, 8/19/19]

15.17 Air Pollution Control Practices

At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions in accordance with 40 CFR 60.11(d).

[40 CFR 60.11(d); PTC No. P-2016.0055, 8/19/19]

15.18 Operation and Maintenance Plan

In accordance with the CD, the permittee shall prepare and implement an operations and maintenance plan that describes the operating and maintenance procedures necessary to: minimize the frequency of sulfuric acid plant shutdowns and maintain and operate the sulfuric acid plant, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions, including during periods of startup, shutdown, or malfunction. No less frequently than once every three years, the facility shall review, an update as necessary, the O&M plan for each sulfuric acid plant.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

Monitoring and Recordkeeping Requirements

15.19 Compliance with SO₂ Emission Limits

Compliance with the SO₂ emissions limits from the consent decree shall be determined in accordance with Simplot's CEMS (Continuous Emission Monitoring System) plan. A copy of the CEMS plan must be kept at the Don Plant site for the Department's inspection and review.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

15.20 Continuous Emission Monitoring

In accordance with 40 CFR §60.13(i), and paragraph 17 of the CD, the provisions of 40 CFR § 60.84(a) are an approved alternative with the following requirement. A continuous monitoring system for the measurement of sulfur dioxide emissions from the sulfuric acid plant shall be installed, calibrated, maintained, and operated to demonstrate compliance on a continual basis with the applicable standard for sulfur dioxide capable of directly measuring the SO₂ emissions rate expressed as lb/ton of 100% sulfuric acid produced. The pollutant gas used to prepare calibration gas mixtures under 40 CFR part 60, Appendix B, Performance Specification 2 and for calibration checks under §60.13(d), shall be sulfur dioxide (SO₂). Method 8 shall be used for conducting monitoring system performance evaluations under §60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The CEMS shall have a dual range with span values set at 500 ppm of sulfur dioxide for periods of normal operation and 3,600 ppm of sulfur dioxide for periods of startup, shutdown, or malfunction operation.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

15.21 Hourly SO₂ Emissions Rate

In accordance with 40 CFR §60.13(i), and paragraph 17 of the CD, the provisions of 40 CFR §§ 60.84(b) and (c) are not applicable and the provisions of 40 CFR §60.84(d) are replaced with the following requirements. The 1-hour SO₂ emission rate shall be calculated as follows:

$$\frac{E \text{ lb}}{\text{ton}} = \frac{Cs \cdot S}{(0.264 - 0.0126 \cdot \%O_2 - 7.61 \cdot Cs)}$$

Where:

$P_{H_2SO_4}$ = 100% sulfuric acid production, tons per unit of time

$M_{SO_2 Stack}$ = Mass SO₂ stack emission rate, lb per unit of time

$\%O_2$ = Stack O₂ concentration, percent by volume dry basis

Cs = Stack SO₂ concentration, lb/DSCF (to convert parts per million by volume, dry basis (ppmvd) to lb/DSCF, multiply by 1.661x10⁻⁷).

$\frac{E \text{ lb}}{\text{ton}}$ = lb SO₂ per ton 100% sulfuric acid produced

S = the acid production rate factor, 11,800 DSCF/ton of 100% sulfuric acid produced

The 3-hour rolling average SO₂ emission rate shall be calculated as follows:

$$E_{3hravg} = \frac{\sum_i^3 E_{1hravg i}}{3}$$

Where:

E_{1hravg} = 1-hour average lb SO₂ per ton 100% sulfuric acid produced for hour i

E_{3hravg} = 3-hour rolling average lb SO₂ per ton 100% sulfuric acid produced, rounded to the nearest tenth

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

15.22 Daily SO₂ Emissions Rate

In accordance with 40 CFR §60.13(i), and paragraph 17 of the CD, the provisions of 40 CFR §§ 60.84(b) and (c) are not applicable and the provisions of 40 CFR §60.84(d) are replaced with the following requirements. The daily mass SO₂ emissions ($M_{SO_2 Day}$) (which are based on a calendar day) shall be calculated for each Sulfuric Acid Plant using the hourly values of the estimated 100% Sulfuric Acid Production rate, and the following equation:

$$M_{SO_2 Day} = \sum_i^n (E_{1hravg i} \cdot P_{H_2SO_4 Hour i})$$

Where:

$E_{1hravg i}$ = 1-hour average lb SO₂ per ton 100% sulfuric acid produce during hour i

$P_{H_2SO_4 Hour i}$ = 100% sulfuric acid produced during hour i, tons

$M_{SO_2 Day}$ = Mass emissions of SO₂ during a calendar day, lb

n = Number of operating hours in the day

For the purposes of calculating a 365-day rolling average lb/ton SO₂ emission rate, the system will maintain an array of $M_{SO_2 Day i}$ and $P_{TonsH_2O_4}$ each day for 365 days. Every day, the system will add the values from that day to the array and exclude the readings from the oldest day.

The 365-day rolling average lb/ton SO₂ emission rate ($E_{365 - Day Avg}$) will be calculated as follows:

$$E_{365 - Day Avg} = \frac{\sum_i^n M_{SO_2 Day i}}{\sum_i^n P_{H_2SO_4 Day i}}$$

Where:

$M_{SO_2 Day i}$ = Mass emissions of SO₂ during a calendar day i, lb

$P_{H_2SO_4 Day i}$ = 100% sulfuric acid produced during day i, tons

$E_{365 - Day Avg}$ = 365-day rolling average lb SO₂ per ton 100% sulfuric acid produced, rounded to the nearest hundredth.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

15.23 Alternative Continuous Emission Monitoring

In accordance with 40 CFR §§ 60.84(d), alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO₂ emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO₂, O₂, and CO₂ (if required) shall be installed, calibrated, maintained, and operated by the owner or operator and subjected to the certification procedures in Performance Specifications 2 and 3. The calibration procedure and span value for the SO₂ monitor shall be as specified in paragraph (b) of this section. The span value for CO₂ (if required) shall be 10% and for O₂ shall be 20.9% (air). A conversion factor based on process rate data is not necessary. Calculate the SO₂ emission rate as follows:

$$E_s = (C_s S) / [0.265 - (0.126 \%O_2) - (A \%CO_2)]$$

Where:

E_s = emission rate of SO₂, kg/metric ton (lb/ton) of 100% of H₂SO₄ produced.

C_s = concentration of SO₂, kg/dscm (lb/dscf).

S = acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100% H₂SO₄ produced.

%O₂ = oxygen concentration, percent dry basis.

A = auxiliary fuel factor.

= 0.00 for no fuel.

= 0.0226 for methane.

= 0.0217 for natural gas.

= 0.0196 for propane.

= 0.0172 for No 2 oil.

- = 0.0161 for No 6 oil.
- = 0.0148 for coal.
- = 0.0126 for coke.

%CO₂= carbon dioxide concentration, percent dry basis.

Note: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From	To	Multiply by
g/scm	kg/scm	10 ⁻³
mg/scm	kg/scm	10 ⁻⁶
ppm (SO ₂)	kg/scm	2.660 x 10 ⁻⁶
ppm (SO ₂)	lb/scf	1.660 x 10 ⁻⁷

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.

[40 CFR 60.84(d); PTC No. P-2016.0055, 8/19/19]

Performance Testing Requirements

15.24 Compliance Test

The permittee shall conduct performance tests to demonstrate that the pollution control equipment is capable of achieving pollutant-specific emission limits. Any compliance tests conducted to demonstrate compliance shall be performed in accordance with IDAPA 58.01.01.157, General Provisions 18.21 through 18.23, and the requirements outlined in the following subsections.

[PTC No. P-2016.0055, 8/19/19]

15.25 Sulfur Dioxide, Sulfuric Acid Mist, and Visible Emissions

The performance tests shall include a performance evaluation of the CEMS. Method 8 (or an alternative method approved by both DEQ and EPA in accordance with IDAPA 58.01.01.157) shall be used to determine the concentration of H₂SO₄.

In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60 or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in 40 CFR 60.85(c).

In accordance with 40 CFR 60.85(b), the owner or operator shall determine compliance with the SO₂, acid mist, and visible emission standards as follows:

- (1) The emission rate (E) of acid mist shall be computed for each run using the following equation:

$$E = (CQ_{sd}) / (PK)$$

Where:

E = emission rate of acid mist kg/metric ton (lb/ton) of 100% H₂SO₄ produced.

C = concentration of acid mist, g/dscm (lb/dscf).

Q_{sd} = volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).
P = production rate of 100% H₂SO₄, metric ton/hr (ton/hr).
K = conversion factor, 1000 g/kg (1.0 lb/lb).

- (2) Method 8 shall be used to determine the acid mist and SO₂ concentrations (C's) and the volumetric flow rate (Qsd) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).
 - (3) Suitable methods shall be used to determine the production rate (P) of 100% H₂SO₄ for each run. Material balance over the production system shall be used to confirm the production rate.
 - (4) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.
- (c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
- (1) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:
 - (i) The integrated technique of Method 3 is used to determine the O₂ concentration and, if required, CO₂ concentration.
 - (ii) The SO₂ or acid mist emission rate is calculated as described in Permit Condition 16.23, substituting the acid mist concentration for C's as appropriate.

[40 CFR 60.85; 40 CFR 52.670(d); PTC No. P-2016.0055, 8/19/19]

15.26 NO_x Performance Test

The performance test for NO_x shall be conducted in accordance with IDAPA 58.01.01.157. The test shall use the reference methods and procedures described in 40 CFR 60, Appendix A. Method 7 (or an alternative method approved by DEQ in accordance with IDAPA 58.01.01.157) shall be used to determine the emission rate of NO_x.

At least once every five years, the permittee shall conduct a performance test to demonstrate compliance with the emissions limit specified in Permit Condition 15.6. After the initial performance test conducted within six-months of the permit issuance date, future testing shall be performed according to the following schedule. If the emissions rate measured in the most recent test is less than or equal to 75% of the emission standard in the permit, the next test shall be conducted within five years of the test date. If the emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission standard in the permit, the next test shall be conducted within two years of the test date. If the emission rate measured during the most recent performance test is greater than 90% of the emission standard in the permit, the next test shall be conducted within 13 months of the test date.

[40 CFR 52.670(d); PTC No. P-2016.0055, 8/19/19]

15.27 PM₁₀ Performance Test

A performance test shall be conducted to evaluate total PM₁₀ from the sulfuric acid plant No. 300. The test shall use the reference methods and procedures described in 40 CFR 51, Appendix M. Method 201A and Method 202 (or alternative methods approved by DEQ in accordance with IDAPA 58.01.01.157) shall be used to determine the emission rate of PM₁₀.

At least once every five years, the permittee shall conduct a performance test to demonstrate compliance with the emissions limit specified in Permit Condition 15.9. After the initial performance test conducted within six-months of the permit issuance date, future testing shall be performed according to the following schedule. If the emissions rate measured in the most recent test is less than or equal to 75% of the emission standard in the permit, the next test shall be conducted within five years of the test date. If the emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission standard in the permit, the next test shall be conducted within two years of the test date. If the emission rate measured during the most recent performance test is greater than 90% of the emission standard in the permit, the next test shall be conducted within 13 months of the test date.

[40 CFR 52.670(d); PTC No. P-2016.0055, 8/19/19]

15.28 Ammonia Performance Test

The performance test for NH₃ shall be conducted in accordance with IDAPA 58.01.01.157. EPA conditional test method CTM-027 (or alternative method approved by DEQ) shall be used to determine the emission rate of NH₃.

At least once every five years, the permittee shall conduct a performance test to demonstrate compliance with the emissions limit specified in Permit Condition 15.13. After the initial performance test conducted within six-months of the permit issuance date, future testing shall be performed according to the following schedule. If the emissions rate measured in the most recent test is less than or equal to 75% of the emission standard in the permit, the next test shall be conducted within five years of the test date. If the emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission standard in the permit, the next test shall be conducted within two years of the test date. If the emission rate measured during the most recent performance test is greater than 90% of the emission standard in the permit, the next test shall be conducted within 13 months of the test date.

[40 CFR 52.670(d); PTC No. P-2016.0055, 8/19/19]

15.29 Visible Emissions

Visible emissions shall be observed during each performance test run using the methods specified in EPA Reference Method 9 and IDAPA 58.01.01.625.

[40 CFR 52.670(d); PTC No. P-2016.0055, 8/19/19]

15.30 Production Rate

The production rate in pounds per hour and tons per day and the operating parameters shall be recorded during each performance test.

[40 CFR 52.670(d); PTC No. P-2016.0055, 8/19/19]

15.31 Opacity

Opacity shall be determined using the Method 9 procedures contained in IDAPA 58.01.01.625. The permittee shall monitor the visible emissions monthly and keep a record of the observations, complete with conditions of time of observation. A compilation of the most recent five years of records shall be kept on site and shall be made available to DEQ representatives upon request.

[PTC No. P-2016.0055, 8/19/19]

15.32 Sulfuric Acid Production

The permittee shall monitor and record the production rate of the sulfuric acid plant No. 300 in tons per hour, tons per rolling 24-hour period, and tons per any consecutive 12-month period. The permittee shall monitor and record any deviations of scrubber operations from the standard operating procedures recorded in the O&M manual.

[PTC No. P-2016.0055, 8/19/19]

Reporting Requirements

15.33 Performance Test Reporting

The permittee shall submit reports of the results of the performance tests required, including all required process data, to DEQ within 60 days after the date on which the performance tests are concluded.

[PTC No. P-2016.0055, 8/19/19]

15.34 Emission Credit Generation - Prohibition

In accordance with the CD, the facility shall neither generate nor use any CD Emissions Reductions: as netting reductions; as emissions offsets; or to apply for, obtain, trade, or sell any emission reduction credits. Except as provided in Permit Condition 15.36, baseline actual emissions for each unit during any 24-month period selected by the permittee shall be adjusted downward to exclude any portion of the baseline emissions that would have been eliminated as CD Emissions Reductions had the facility been complying with the CD during that 24-month period. Any plant-wide applicability limits (“PALs”) or PAL-like limits that apply to emission units addressed by the CD must be adjusted downward to exclude any portion of the baseline emissions used in establishing such limit(s) that would have been eliminated as CD Emissions Reductions had the facility been complying with the CD during such baseline period.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

15.35 Emission Credit Generation – Outside the Scope of the Prohibition

In accordance with the CD, nothing in Permit Condition 15.34 is intended to prohibit the facility from seeking to:

- Use or generate emission reductions from emissions units that are covered by the CD to the extent that the proposed emission reductions represent the difference between CD Emissions Reductions and more stringent control requirements that the facility may elect to accept for those emissions units in a permitting process;
- Use or generate emission reduction from emissions units that are not subject to an emission limitation or control requirement pursuant to the CD; or
- Use CD Emissions Reductions for compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area (excluding PSD and Non-attainment NSR rules, but including, for example Reasonably Available Control Technology rules) that apply to the facility; provided, however, that the facility shall not be allowed to trade or sell any CD Emissions Reductions.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

15.36 Emission Credit Generation – Exception to the Prohibition

In accordance with the CD, notwithstanding the general prohibition set forth in Permit Condition 15.34, the facility may use past actual emissions from the #300 Don Plant as baseline actual emissions in the actual-to-projected-actual applicability test to determine the emissions increase at that emissions unit from a capacity increase project at that Sulfuric Acid Plant.

Utilization of this exception is subject to each of the following conditions:

- Under no circumstance shall the facility use CD Emissions Reductions prior to the time that actual CD Emissions Reductions have occurred;
- If use of past actual emissions from the #300 Don Plant as baseline actual emissions in the actual-to-projected-actual applicability test leads to the calculation of a negative (below zero) emissions increase at that emissions unit, the emissions increase at that emissions unit shall be considered equal to zero in determining whether the project will result in a significant emissions increase;
- Use of past actual emissions under this Exception to the Prohibition does not extend to any use of past actual emissions in determining the net emissions increase from the major stationary source;
- CD Emissions Reductions may be used only at the Facility that generated them;
- The facility shall still be subject to all federal and state regulations applicable to the PSD, Non-attainment NSR, and/or Minor NSR permitting process; and
- Not later than thirty (30) days before the facility seeks to use any CD Emission Reductions allowed under this permit condition, the facility shall provide notice of such projects to EPA (including copies of all permit applications and other relevant documentation submitted to the permitting authority).

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

40 CFR 64 – Compliance Assurance Monitoring (CAM)

15.37 The purpose of this section of the permit is to include all of the applicable requirements of 40 CFR 64, “Compliance Assurance Monitoring” (CAM). CAM requires selecting compliance indicators that when operated within specified ranges provide a reasonable assurance of compliance. CAM also requires monitoring, record keeping, and reporting requirements.

15.38 For SO₂ emissions limits, in accordance with 40 CFR 64.3(d)(2)(ii), the permittee is deemed to satisfy the monitoring requirements in 40 CFR 64.3(a) and (b) when the permittee complies with Permit Condition 15.20, the SO₂ continuous emissions monitoring requirement.

[40 CFR 64.3(d)]

15.39 Table 15.3 lists the emissions unit and pollutants that are applicable to CAM and details the monitoring requirements for each emissions unit which the permittee shall comply with. The table also specifies the specific values that are approved to determine when an excursion has occurred.

- Emissions Unit: 300 Sulfuric Acid Plant
- Regulated Pollutants: H₂SO₄
- Emission Limit: 3 lb/hr

Table 15.3 Compliance Assurance Monitoring Requirements for the Mist Eliminators

Requirement	Indicator No. 1
Indicator	Mist Eliminators Operation following the AmmSox scrubber
Measurement Approach	Mist eliminator inspection every two years.
Indicator Range	An excursion ^(a) is defined as the discovery of failure or degradation of the mist eliminator structure or excessive clogging.
Performance Criteria Data Representativeness	The mist eliminators shall be visually inspected for deterioration.
QA/QC Practices	Trained personnel shall perform the inspections.
Monitoring Frequency	The inspections shall be performed every two years.
Data Collection Procedure	Results of inspections and maintenance activities performed of the mist eliminators are recorded in the mist eliminator maintenance log.
Averaging Period	None.

a) Excursion is defined in 40 CFR 64 as a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

15.40 Table 15.4 lists the emissions unit and pollutants that are applicable to CAM and details the monitoring requirements for each emissions unit which the permittee shall comply with. The table also specifies the specific values that are approved to determine when an excursion has occurred.

- Emissions Unit: 300 Sulfuric Acid Plant AmmSox Scrubber
- Regulated Pollutants: PM/PM₁₀
- Emission Limit: 11.4 lb/hr

Table 15.4 Compliance Assurance Monitoring Requirements for the AmmSox Scrubber

Requirement	Indicator No. 1	Indicator No. 2
Indicator	Liquor Circulation Pressure	Liquor pH
Measurement Approach	The circulation pressure is monitored with a differential pressure gauge.	The liquid flow rate is monitored with a pH meter.
Indicator Range	An excursion ^(a) is defined as a circulation pressure of less than 14.0 inches of water or greater than 22.0 inches of water.	An excursion ^(a) is defined as a pH of less than 4.8 or greater than 7.2.
Performance Criteria Data Representativeness	The monitoring system consists of a differential pressure gauge which measures the circulation pressure at the liquor inlet line.	A pH meter is used to monitor pH on the liquor inlet line.
QA/QC Practices	The differential gauge is calibrated annually.	The pH meter is calibrated annually.
Monitoring Frequency	The circulation pressure is measured continuously.	The liquor pH is measured continuously.
Data Collection Procedure	The circulation pressure is electronically recorded with many data points on a daily basis.	The pH is electronically recorded with many data points on a daily basis.
Averaging Period	Daily average	Daily average

a) Excursion is defined in 40 CFR 64 as a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

15.41 Table 15.5 lists the emissions unit and pollutants that are applicable to CAM and details the monitoring requirements for each emissions unit which the permittee shall comply with. The table also specifies the specific values that are approved to determine when an excursion has occurred.

- Emissions Unit: 300 Sulfuric Acid Plant DynaWave Scrubber
- Regulated Pollutants: PM/PM₁₀
- Emission Limits: 11.4 lb/hr

Table 15.5 Compliance Assurance Monitoring Requirements for the DynaWave Scrubber

Requirement	Indicator No. 1	Indicator No. 2
Indicator	Liquor Nozzle Pressure	Liquor pH
Measurement Approach	The liquor nozzle pressure is monitored with a differential pressure gauge.	The liquor pH is monitored with a pH meter.
Indicator Range	An excursion ^(a) is defined as a nozzle pressure of less than 7.0 inches of water or greater than 11.0 inches of water.	An excursion ^(a) is defined as a liquor pH of less than 4.24 or greater than 6.4.
Performance Criteria Data Representativeness	The monitoring system consists of a pressure gauge which measures the nozzle pressure located on the liquor nozzle line.	A pH meter is used to monitor liquor pH located on the liquor inlet line.
QA/QC Practices	The pressure gauge is calibrated annually.	The pH meter is calibrated annually.
Monitoring Frequency	The nozzle pressure is measured continuously.	The liquor pH is measured continuously.
Data Collection Procedure	The nozzle pressure is electronically recorded with many data points on a daily basis.	The liquor pH is electronically recorded with many data points on a daily basis.
Averaging Period	Daily average	Daily average

a) Excursion is defined in 40 CFR 64 as a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

CAM Recordkeeping

- 15.42** In accordance with 40 CFR 64.7(a), the permittee shall conduct the monitoring required under this permit upon issuance. [40 CFR 64.7(a)]
- 15.43** In accordance with 40 CFR 64.7(b), at all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. [40 CFR 64.7(b)]
- 15.44** In accordance with 40 CFR 64.7(c)-except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments)-the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the mist eliminators, AmmSox scrubber, and DynaWave scrubber are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of CAM, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 64.7(c)]
- 15.45** In accordance with 40 CFR 64.7(d), upon detecting an excursion or exceedance, the permittee shall restore operation of the emissions unit(s) (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [40 CFR 64.7(d)]

- 15.46** In accordance with 40 CFR 64.3(b), for the description of the control device(s) (e.g., multiclone in series with a wet scrubber and cyclone separator), if the manufacturer specifications for the monitoring devices for indicator 1 (e.g., pressure drop) and indicator 2 (e.g., scrubbing media flow rate) include calibration procedures but do not specify a calibration frequency, the device shall be calibrated at least once each calendar year.
- [40 CFR 64.3(b)(1), (2), and (3)]**
- 15.47** In accordance with 40 CFR 64.6(c)(2), an excursion shall be defined as any measured monitoring parameter which is outside the indicator ranges specified for the emissions units in Tables 15.3 through 15.5.
- [40 CFR 64.6(c)(2)]**
- 15.48** In accordance with 40 CFR 64.7(e), if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to this operating permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
- [40 CFR 64.7(e)]**
- 15.49** In accordance with 40 CFR 64.8(a), the permittee shall develop and implement a quality improvement plan (QIP) if an accumulation of exceedances or excursions exceeds 5 percent duration of either the mist eliminators, AmmSox scrubber, or DynaWave scrubber's operating time for a reporting period.
- [40 CFR 64.8(a)]**
- 15.50** In accordance with 40 CFR 64.9(a)(2), the reports required by the Semiannual Monitoring Reports and Reporting Deviations and Excess Emissions General Provisions shall include the following information for those emissions units listed in Tables 15.3 through 15.5.
- Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken.
 - Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).
- [40 CFR 64.9(a)(2)]**
- 15.51** In accordance with 40 CFR 64.9(b), the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring or records of monitoring maintenance or corrective actions).
- [40 CFR 64.9(b)]**
- 15.52** Should there be a conflict between 40 CFR 64 and any of Permit Conditions 15.38 through 15.44 or 15.47 through 15.50 of this permit, the 40 CFR 64 shall govern.

16 Emissions Unit Group 13: Sulfuric Acid Plant No. 400

Summary Description

The following is a narrative description of the processes at sulfuric acid plant No. 400 regulated in this Tier I operating permit. This description is for informational purposes only.

The No. 400 Sulfuric Acid Plant uses a double-absorption contact process to produce sulfuric acid (H_2SO_4) from elemental sulfur. The elemental sulfur is burned in a furnace to produce a SO_2 -rich gas stream. The SO_2 -rich gas stream is then routed to a catalytic converter where it reacts with oxygen to form sulfur trioxide (SO_3). After the third catalyst bed, the now SO_3 -rich gas stream is cooled and sent to an intermediate absorbing tower where much of the SO_3 is absorbed into a concentrated sulfuric acid solution. The exhaust gas from the intermediate absorbing tower is reheated and returned to the catalytic converter where it passes through the fourth and final catalyst bed where most of the remaining SO_2 is converted to SO_3 . This gas stream exits the converter, is cooled, and is then routed to the final absorbing tower where virtually all of the remaining gas-phase SO_3 is absorbed into a concentrated sulfuric acid solution. The gas exiting the final absorbing tower passes through a set of high-efficiency mist eliminators which collect most of the residual H_2SO_4 mist before travelling out of the plant stack.

Table 16.1 describes the devices used to control emissions from sulfuric acid plant No. 400.

Table 16.1 Sulfuric Acid Plant No. 400 Description

Emissions Units / Processes	Control Devices
Sulfuric acid plant No. 400 with double-contact SO_2 removal	mist-eliminator (an inherent process equipment)

Table 16.2 contains only a summary of the requirements that apply to the sulfuric acid plant No. 400. Specific permit requirements are listed below.

Table 16.2 Applicable Requirements Summary

Permit Conditions	Parameter	Limit/Standard Summary	Applicable Requirements Reference	Operating, Monitoring, and Recordkeeping Requirements
16.6	NO _x	10.1 lb/hr, 42.1 T/yr	PTC No. P-2016.0055	16.15 – 16.18, 16.25, 16.26
16.7	PM	Process weight rate	IDAPA 58.01.01.701	16.15 – 16.18, 16.25, 16.26
16.8	PM ₁₀	13.6 lb/hr, 59.6 T/yr	PTC No. P-2016.0055	
16.9	SO ₂	2.5 lb/T of 100% H ₂ SO ₄ produced – short-term limit	PTC No. P-2016.0055	16.15 – 16.23, 16.25, 16.27, 16.31 – 16.33
		1.6 lb/T of 100% H ₂ SO ₄ produced – long-term limit	PTC No. P-2016.0055	
		1.2 lb/T of 100% H ₂ SO ₄ produced – long-term limit if converter is replaced	PTC No. P-2016.0055	
16.10	4 lb/T of 100% H ₂ SO ₄ produced	40 CFR 60.82(a)		
	999 lb/3-hr period, 1,458 T/yr	PTC No. P-2016.0055		
16.11	H ₂ SO ₄ mist	0.05 lb/T of 100% H ₂ SO ₄ produced	PTC No. P-2016.0055	16.15 – 16.18, 16.25, 16.27, 16.31 – 16.33
16.12		54.8 T/yr	PTC No. P-2016.0055	
16.13	PM _{2.5}	0.08 lb/T of 100% H ₂ SO ₄ produced	PTC No. P-2016.0055	16.15 – 16.18, 16.25, 16.28 – 16.33
16.14	Opacity	10%	PTC No. P-2016.0055; 40 CFR 60.83(a)(2)	16.15 – 16.18, 16.24
16.15	100% H ₂ SO ₄ Throughput	789,579 T of 100% H ₂ SO ₄ produced in any consecutive 12-month period	PTC No. P-2016.0055	16.25

16.1 Consent Decree with the U.S. EPA

Limits, requirements, and restrictions with citations to the Consent Decree (CD) were established pursuant to a Consent Decree with U.S. EPA and shall not be deleted or modified without the U.S. EPA approval.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

Definitions

16.2 Startup

For purposes of the limits in this section of the permit, “Startup” shall mean the setting in operation of a Sulfuric Acid Plant for any purpose, consistent with 40 C.F.R. §60.2. With respect to any Sulfuric Acid Plant, startup begins at the time the feed of elemental sulfur to the furnace commences and lasts no more than 4 hours.

[PTC No. P-2016.0055, 8/19/19]

16.3 Shutdown

For purposes of the limits in this section of the permit, “Shutdown” shall mean the cessation of operation of a Sulfuric Acid Plant for any purpose, consistent with 40 C.F.R. §60.2. With respect to any Sulfuric Acid Plant, shutdown begins at the time the feed of elemental sulfur to the furnace ceases and ends 3 hours later or when the blower is turned off, whichever is earlier.

[PTC No. P-2016.0055, 8/19/19]

16.4 Malfunction

For purposes of the limits in this section of the permit, "Malfunction" shall mean any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner, but shall not include failures that are caused in part by poor maintenance or careless operation, consistent with 40 C.F.R. §60.2.

[PTC No. P-2016.0055, 8/19/19]

16.5 Consent Decree

Consent Decree (CD) shall mean *USA et al. v. J.R. Simplot Company*, Case No. 1:15-cv-00562-CWD (Dist. Idaho 2015). In any permit action after April 12, 2016 (effective date of the CD), the permittee shall adjust the baseline actual emissions downward to eliminate any portion of SO₂ emissions that would have exceeded the SO₂ emission limitation in the CD, that have also been incorporated in Permit Conditions 15.10 and 16.9, for the #300 and #400 sulfuric acid plants respectively.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

Emission Limits

16.6 RACT NO_x Emission Limit

Emissions of NO_x from the No. 400 sulfuric acid plant stack shall not exceed 10.1 lb/hr based on a 24-hour average and 42.1 T/yr for any consecutive 12 month period.

[PTC No. P-2016.0055, 8/19/19]

16.7 PM Emission Limit

No person shall emit PM to the atmosphere from any process or process equipment commencing operating on or after October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in lb/hr, and PW is the process weight in lb/hr:

- If PW is less than 9,250 lb/hr,

$$E = 0.045(PW)^{0.60}$$

- If PW is equal to or greater than 9,250 lb/hr,

$$E = 1.10(PW)^{0.25}$$

[IDAPA 58.01.01.701, 4/5/00]

16.8 RACT PM₁₀ Emission Limit

Emissions of PM₁₀ from the No. 400 sulfuric acid plant stack shall not exceed 13.6 lb/hr based on a 24-hour average and 59.6 T/yr for any consecutive 12 month period.

[PTC No. P-2016.0055, 8/19/19]

16.9 Consent Decree (CD) SO₂ Emission Limits

- Emissions of SO₂ from the No. 400 sulfuric acid plant stack shall not exceed 2.5 lb/T of 100% sulfuric acid produced on a rolling 3-hour average basis, except during periods of start-up, shutdown, or malfunction.
- Emissions of SO₂ from the No. 400 sulfuric acid plant stack shall not exceed 1.6 lb/T of 100% sulfuric acid produced on a rolling 365-day average basis including period of startup, shutdown, and malfunction.

- If the permittee applies for a PTC to replace the converter at this unit, obtains a PTC to replace the converter at this unit, or commences construction to replace the converter at this unit, no later than 180 days from Startup following such construction, the permittee shall commence monitoring SO₂ emissions in accordance with the CEMS Plan, but shall have 365 additional days to ensure that SO₂ shall not exceed 1.2 lb/T of 100% sulfuric acid produced on a rolling 365-day average basis including periods of startup, shutdown, and malfunction.
[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

16.10 SO₂ Emission Limit

Emissions of SO₂ from the No. 400 sulfuric acid plant stack shall not exceed 4 lb/T of 100% sulfuric acid produced and 999 lb per each running three-hour period. SO₂ emissions shall not exceed 1,458 T/yr (tons per any consecutive 12 month period). The ton-per-year emission rate shall be determined by multiplying the actual pound per hour emissions by the actual hours per year the process venting to this stack operates.

[40 CFR 60.82(a); PTC No. P-2016.0055, 8/19/19]

16.11 Consent Decree (CD) Sulfuric Acid Mist Emission Limit

Emissions of sulfuric acid mist from the No. 400 sulfuric acid plant stack shall not exceed 0.05 lb of acid mist per ton of 100% sulfuric acid produced.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

16.12 Sulfuric Acid Mist Emission Limit

Sulfuric acid mist emissions shall not exceed 54.8 T/yr (tons per any consecutive 12 month period). The ton-per-year emission rate shall be determined by multiplying the actual pound per hour emissions by the actual hours per year the process venting to this stack operates.

[PTC No. P-2016.0055, 8/19/19]

16.13 Consent Decree (CD) PM_{2.5} Emission Limit

Emissions of PM_{2.5} from the No. 400 sulfuric acid plant stack shall not exceed 0.08 lb/T of 100% sulfuric acid produced.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

16.14 Opacity Limit

Emissions from the No. 400 sulfuric acid plant stack, or any other stack, vent, or functionally equivalent opening associated with the No. 400 sulfuric acid plant, shall not exceed 10% opacity as determined using the U.S. EPA Reference Method 9 and procedures in 40 CFR 60.11. The opacity standards set forth here shall apply at all times except during periods of startup, shutdown, or malfunction.

[40 CFR 60.83(a)(2); 40 CFR 60.11(c); PTC No. P-2016.0055, 8/19/19]

Operating Requirements

16.15 Consent Decree (CD) and State Production Limit

The maximum production rate of Sulfuric Acid Plant No. 400 shall not exceed 789,579 tons of 100% sulfuric acid produced in any consecutive 12-calendar months. Upon termination of the U.S. EPA Consent Decree, this production limit will remain solely as a state only requirement.

The production rate of sulfuric acid plant No. 400 processes shall be determined during the tests required in Permit Condition 16.27. The maximum production during the following year shall not exceed 105% of the rate achieved or 789,579 tons of 100% sulfuric acid produced in any consecutive 12-month period, whichever is lower, during the tests unless the following conditions are met:

- The SO₂ monitor is calibrated at least once every 24 hours using certified test gases, one of which has an SO₂ concentration equal to or less than the expected stack gas SO₂ concentration, and one of which has an SO₂ concentration greater than the expected stack gas SO₂ concentration.
- The calibrated SO₂ monitor is cross-checked and agrees with the initial compliance test, which demonstrates SO₂ emission limit compliance.
- Prior written approval by DEQ is received.
- An emission test is performed at the requested increased emission rate, and the test demonstrates that the continuous emission monitor is accurate at the increased rate.
- The PM₁₀, NO_x, SO₂, and acid mist emission limits will not be violated at the requested increased emission rates.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

16.16 Consent Decree (CD) Production Rate

The maximum production rate of Sulfuric Acid Plant No. 400 shall not exceed 789,579 tons of 100% sulfuric acid produced in any consecutive 12-month period until no earlier than 364 days before the 1.2 lb/T of 100% sulfuric acid produced (for the converter replacement) on a rolling 365-day average basis including periods of startup, shutdown, and malfunction.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

16.17 Air Pollution Control Practices

At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions in accordance with 40 CFR 60.11(d).

[PTC No. P-2016.0055, 8/19/19; 40 CFR 60.11(d)]

16.18 Operation and Maintenance Plan

In accordance with the CD, the permittee shall prepare and implement an operations and maintenance plan that describes the operating and maintenance procedures necessary to: minimize the frequency of sulfuric acid plant shutdowns and maintain and operate the sulfuric acid plant, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions, including during periods of startup, shutdown, or malfunction. No less frequently than once every three years, the facility shall review, an update as necessary, the O&M plan for each sulfuric acid plant.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

Monitoring and Recordkeeping Requirements

16.19 Compliance with SO₂ Emission Limit

Compliance with the SO₂ emissions limit from the consent decree shall be determined in accordance with Simplot's CEMS (Continuous Emission Monitoring System) plan. A copy of the CEMS plan must be kept at the Don Plant site for the Department's inspection and review.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

16.20 Continuous Emission Monitoring

In accordance with 40 CFR §60.13(i), and paragraph 17 of the CD, the provisions of 40 CFR § 60.84(a) are an approved alternative with the following requirement. A continuous monitoring system for the measurement of sulfur dioxide emissions from the sulfuric acid plant shall be installed, calibrated, maintained, and operated to demonstrate compliance on a continual basis with the applicable standard for sulfur dioxide capable of directly measuring the SO₂ emissions rate expressed as lb/ton of 100% sulfuric acid produced. The pollutant gas used to prepare calibration gas mixtures under 40 CFR part 60, Appendix B, Performance Specification 2 and for calibration checks under §60.13(d), shall be sulfur dioxide (SO₂).

Method 8 shall be used for conducting monitoring system performance evaluations under §60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The CEMS shall have a dual range with span values set at 500 ppm of sulfur dioxide for periods of normal operation and 3,600 ppm of sulfur dioxide for periods of startup, shutdown, or malfunction operation.

[U.S. EPA Consent Decree, 12/3/15; 40 CFR 60.13(i), PTC No. P-2016.0055, 8/19/19]

16.21 Hourly SO₂ Emissions Rate

In accordance with 40 CFR §60.13(i), and paragraph 17 of the CD, the provisions of 40 CFR §§ 60.84(b) and (c) are not applicable and the provisions of 40 CFR §60.84(d) are replaced with the following requirements. The 1-hour SO₂ emission rate shall be calculated as follows:

$$E_{\frac{lb}{ton}} = \frac{Cs \cdot S}{(0.264 - 0.0126 \cdot \%O_2 - 7.61 \cdot Cs)}$$

Where:

$P_{H_2SO_4}$ = 100% sulfuric acid production, tons per unit of time

$M_{SO_2 Stack}$ = Mass SO₂ stack emission rate, lb per unit of time

$\%O_2$ = Stack O₂ concentration, percent by volume dry basis

Cs = Stack SO₂ concentration, lb/DSCF (to convert parts per million by volume, dry basis (ppmvd) to lb/DSCF, multiply by 1.661x10⁻⁷).

$E_{\frac{lb}{ton}}$ = lb SO₂ per ton 100% sulfuric acid produced

S = the acid production rate factor, 11,800 DSCF/ton of 100% sulfuric acid produced

The 3-hour rolling average SO₂ emission rate shall be calculated as follows:

$$E_{3hravg} = \frac{\sum_i^3 E_{1hravg i}}{3}$$

Where:

E_{1hravg} = 1-hour average lb SO₂ per ton 100% sulfuric acid produced for hour i

E_{3hravg} = 3-hour rolling average lb SO₂ per ton 100% sulfuric acid produced, rounded to the nearest tenth

[U.S. EPA Consent Decree, 12/3/15; 40 CFR 60.13(i), PTC No. P-2016.0055, 8/19/19]

16.22 Daily SO₂ Emissions Rate

In accordance with 40 CFR §60.13(i), and paragraph 17 of the CD, the provisions of 40 CFR §§ 60.84(b) and (c) are not applicable and the provisions of 40 CFR §60.84(d) are replaced with the following requirements. The daily mass SO₂ emissions (M_{SO_2Day}) (which are based on a calendar day) shall be calculated for each Sulfuric Acid Plant using the hourly values of the estimated 100% Sulfuric Acid Production rate, and the following equation:

$$M_{SO_2Day} = \sum_i^n (E_{1hravg\ i} \cdot P_{H_2SO_4Hour\ i})$$

Where:

$E_{1hravg\ i}$ = 1-hour average lb SO₂ per ton 100% sulfuric acid produce during hour i

$P_{H_2SO_4Hour\ i}$ = 100% sulfuric acid produced during hour i, tons

M_{SO_2Day} = Mass emissions of SO₂ during a calendar day, lb

n = Number of operating hours in the day

For the purposes of calculating a 365-day rolling average lb/ton SO₂ emission rate, the system will maintain an array of M_{SO_2Day} and $P_{TonsH_2O_4}$ each day for 365 days. Every day, the system will add the values from that day to the array and exclude the readings from the oldest day.

The 365-day rolling average lb/ton SO₂ emission rate ($E_{365-Day\ Avg}$) will be calculated as follows:

$$E_{365-Day\ Avg} = \frac{\sum_i^n M_{SO_2Day\ i}}{\sum_i^n P_{H_2SO_4Day\ i}}$$

Where:

$M_{SO_2Day\ i}$ = Mass emissions of SO₂ during a calendar day i, lb

$P_{H_2SO_4Day\ i}$ = 100% sulfuric acid produced during day i, tons

$E_{365-Day\ Avg}$ = 365-day rolling average lb SO₂ per ton 100% sulfuric acid produced, rounded to the nearest hundredth.

[U.S. EPA Consent Decree, 12/3/15; 40 CFR 60.13(i), PTC No. P-2016.0055, 8/19/19]

16.23 Alternative Continuous Emission Monitoring

In accordance with 40 CFR §§ 60.84(d), alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO₂ emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO₂, O₂, and CO₂ (if required) shall be installed, calibrated, maintained, and operated by the owner or operator and subjected to the certification procedures in Performance Specifications 2 and 3. The calibration procedure and span value for the SO₂ monitor shall be as specified in paragraph (b) of this section. The span value for CO₂ (if required) shall be 10% and for O₂ shall be 20.9% (air). A conversion factor based on process rate data is not necessary. Calculate the SO₂ emission rate as follows:

$$Es = (CsS) / [0.265 - (0.126 \%O_2) - (A \%CO_2)]$$

Where:

E_2 = emission rate of SO_2 , kg/metric ton (lb/ton) of 100% of H_2SO_4 produced.

C_s = concentration of SO_2 , kg/dscm (lb/dscf).

S = acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100% H_2SO_4 produced.

% O_2 = oxygen concentration, percent dry basis.

A = auxiliary fuel factor.

= 0.00 for no fuel.

= 0.0226 for methane.

= 0.0217 for natural gas.

= 0.0196 for propane.

= 0.0172 for No 2 oil.

= 0.0161 for No 6 oil.

= 0.0148 for coal.

= 0.0126 for coke.

% CO_2 = carbon dioxide concentration, percent dry basis.

Note: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From	To	Multiply by
g/scm	kg/scm	10^{-3}
mg/scm	kg/scm	10^{-6}
ppm (SO_2)	kg/scm	2.660×10^{-6}
ppm (SO_2)	lb/scf	1.660×10^{-7}

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.

[40 CFR 60.84(d); PTC No. P-2016.0055, 8/19/19]

16.24 Opacity

Opacity shall be determined using the Method 9 procedures contained in IDAPA 58.01.01.625. On a monthly basis, the permittee shall monitor and record the visible emissions observations complete with conditions at the time of observation. The records shall be kept at the facility for the most recent five-year period and shall be made available to DEQ representatives upon request.

[PTC No. P-2016.0055, 8/19/19]

16.25 Production Rate Monitoring

The permittee shall monitor and record the production rate of the No. 400 sulfuric acid plant in tons per hour, tons per rolling 24-hour period, and tons per any consecutive 12 month period.

[PTC No. P-2016.0055, 8/19/19]

Performance Testing Requirements

16.26 PM₁₀ and NO_x Performance Test

At least once every five years, the permittee shall conduct a performance test to demonstrate compliance with the emissions limits specified in Permit Conditions 16.6 and 16.8. After the initial performance test conducted within six-months of the permit issuance date, future testing shall be performed according to the following schedule. If the emissions rate measured in the most recent test is less than or equal to 75% of the emission standard in the permit, the next test shall be conducted within five years of the test date. If the emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission standard in the permit, the next test shall be conducted within two years of the test date. If the emission rate measured during the most recent performance test is greater than 90% of the emission standard in the permit, the next test shall be conducted within 13 months of the test date.

[PTC No. P-2016.0055, 8/19/19]

16.27 SO₂ and Sulfuric Acid Mist Performance Tests

Annual SO₂ and H₂SO₄ mist emissions tests shall be performed. All emission tests shall be performed at the process equipment's maximum operating rate.

In accordance with the CD, in conducting the performance tests, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60, Reference Method 8, or an alternative method approved by U.S. EPA. Acceptable alternative methods and procedures are given in paragraph (c) of the section. This test may serve as the NSPS performance test required under 40 CFR 60.8. The permittee shall take all steps necessary to assure accurate measurements of 100% sulfuric acid produced during each test run. The permittee shall conduct the first test no later than October 12, 2016. Thereafter, the permittee shall conduct annual stack tests by December 31 of each calendar year and will submit the results of each test within 60 days.

In accordance with 40 CFR 60.85(b), the owner or operator shall determine compliance with the SO₂, acid mist, and visible emission standards as follows:

- (1) The emission rate (E) of acid mist shall be computed for each run using the following equation:

$$E = (CQ_{sd}) / (PK)$$

Where:

- E = emission rate of acid mist kg/metric ton (lb/ton) of 100% H₂SO₄ produced.
- C = concentration of acid mist, g/dscm (lb/dscf).
- Q_{sd} = volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).
- P = production rate of 100% H₂SO₄, metric ton/hr (ton/hr).
- K = conversion factor, 1000 g/kg (1.0 lb/lb).

- (2) Method 8 shall be used to determine the acid mist and SO₂ concentrations (C's) and the volumetric flow rate (Qsd) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).
 - (3) Suitable methods shall be used to determine the production rate (P) of 100% H₂SO₄ for each run. Material balance over the production system shall be used to confirm the production rate.
 - (4) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.
- (c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
- (1) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:
 - (i) The integrated technique of Method 3 is used to determine the O₂ concentration and, if required, CO₂ concentration.
 - (ii) The SO₂ or acid mist emission rate is calculated as described in Permit Condition 17.23, substituting the acid mist concentration for C's as appropriate.

[U.S. EPA Consent Decree, 12/3/15; 40 CFR 60.85; 40 CFR 52.670(d); PTC No. P-2016.0055, 8/19/19]

16.28 PM_{2.5} Performance Tests

In accordance with the CD, compliance with the PM_{2.5} emission limit is to be demonstrated using EPA Methods 201A and 202, except that Method 5 may be substituted for Method 201A provided that Method 202 is also used for condensable particulate matter and the test results consider all particulate matter to be PM_{2.5}. The permittee shall conduct the first test no later than October 12, 2016. Thereafter, the permittee shall conduct annual stack tests by December 31 of each calendar year and will submit the results of each test within 60 days. Upon demonstrating through at least five annual tests that the PM_{2.5} emission limit is not being exceeded, the permittee may request EPA and IDEQ approval to conduct tests less frequently than annually.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

16.29 Increase in PM_{2.5} Emission Limit through Performance Testing

If during the first five years following the effective date of the CD, performance testing results using EPA Method 201A and Method 202 show that PM_{2.5} emissions exceed 0.08 lb/T of sulfuric acid produced, despite best efforts at design, installation, operation, and maintenance of controls, the permittee may submit a request to U.S. EPA and IDEQ to increase the PM_{2.5} emission limit, not to exceed 0.11 lb/T of 100% sulfuric acid produced. Such request shall include all available PM_{2.5} emissions data for the #400 sulfuric acid plant using the controls existing at the plant as of April 12, 2016, as well as a description of any efforts taken by the permittee or its technology vendors, contractors, or consultants to achieve compliance with that emission limit, along with any supporting documentation.

The increased limit shall be calculated by using all available, but no less than five, performance test results that used EPA Methods 201A and 202 for the #400 sulfuric acid plant using the controls existing at the plant as of April 12, 2016 and in accordance with the following formula. If the calculation exceeds 0.11 lb/T of 100% sulfuric acid produced, then the increased limit would be set at 0.11 lb/T of 100% sulfuric acid produced.

$$\text{Limit} = X + 1.96 * \sigma$$

Where:

X = the sample mean of n stack tests (lb PM_{2.5} / ton 100% sulfuric acid produced)

σ = the standard deviation of n stack tests (lb PM_{2.5} / ton 100% sulfuric acid produced)

n = the number of stack tests that have been performed using U.S. EPA Method 201A and 202; n shall be greater than or equal to 5.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

16.30 Approval of Increased PM_{2.5} Limit

If U.S. EPA approves the permittee's demonstration and request for an increased PM_{2.5} limit, the approved increased limit shall be deemed to have been effective and in lieu of the previous limit during:

- The time when achievement of the previous limit was infeasible (including any time that occurred prior to submittal of the demonstration)
- The pendency of the U.S. EPA's review of the permittee's demonstration, and
- The pendency of any proceeding undertaken pursuant to CD Section XII (Dispute Resolution).

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

Reporting Requirements

16.31 Emission Credit Generation - Prohibition

In accordance with the CD, the facility shall neither generate nor use any CD Emissions Reductions: as netting reductions; as emissions offsets; or to apply for, obtain, trade, or sell any emission reduction credits. Except as provided in Permit Condition 16.36, baseline actual emissions for each unit during any 24-month period selected by the permittee shall be adjusted downward to exclude any portion of the baseline emissions that would have been eliminated as CD Emissions Reductions had the facility been complying with the CD during that 24-month period.

Any plant-wide applicability limits ("PALs") or PAL-like limits that apply to emission units addressed by the CD must be adjusted downward to exclude any portion of the baseline emissions used in establishing such limit(s) that would have been eliminated as CD Emissions Reductions had the facility been complying with the CD during such baseline period.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

16.32 Emission Credit Generation – Outside the Scope of the Prohibition

In accordance with the CD, nothing in Permit Condition 16.34 is intended to prohibit the facility from seeking to:

- Use or generate emission reductions from emissions units that are covered by the CD to the extent that the proposed emission reductions represent the difference between CD Emissions Reductions and more stringent control requirements that the facility may elect to accept for those emissions units in a permitting process;
- Use or generate emission reduction from emissions units that are not subject to an emission limitation or control requirement pursuant to the CD; or

- Use CD Emissions Reductions for compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area (excluding PSD and Non-attainment NSR rules, but including, for example Reasonably Available Control Technology rules) that apply to the facility; provided, however, that the facility shall not be allowed to trade or sell any CD Emissions Reductions.

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

16.33 Emission Credit Generation – Exception to the Prohibition

In accordance with the CD, notwithstanding the general prohibition set forth in Permit Condition 16.34, the facility may use past actual emissions from the #400 Don Plant as baseline actual emissions in the actual-to-projected-actual applicability test to determine the emissions increase at that emissions unit from a capacity increase project at that Sulfuric Acid Plant, but only if the project includes replacement of the #400 Don Plant converter and compliance with the emissions limit set forth in the third bullet of Permit Condition 16.9. Utilization of this exception is subject to each of the following conditions:

- Under no circumstance shall the facility use CD Emissions Reductions prior to the time that actual CD Emissions Reductions have occurred;
- If use of past actual emissions from the #400 Don Plant as baseline actual emissions in the actual-to-projected-actual applicability test leads to the calculation of a negative (below zero) emissions increase at that emissions unit, the emissions increase at that emissions unit shall be considered equal to zero in determining whether the project will result in a significant emissions increase;
- Use of past actual emissions under this Exception to the Prohibition does not extend to any use of past actual emissions in determining the net emissions increase from the major stationary source;
- CD Emissions Reductions may be used only at the Facility that generated them;
- The facility shall still be subject to all federal and state regulations applicable to the PSD, Non-attainment NSR, and/or Minor NSR permitting process; and
- Not later than thirty (30) days before the facility seeks to use any CD Emission Reductions allowed under this permit condition, the facility shall provide notice of such projects to EPA (including copies of all permit applications and other relevant documentation submitted to the permitting authority).

[U.S. EPA Consent Decree, 12/3/15; PTC No. P-2016.0055, 8/19/19]

17 Insignificant Activities

17.1 Table 17.1 lists the units or activities that are insignificant on the basis of size or production rate as provided by the permittee. The regulatory citation for units and activities that are insignificant on the basis of size or production rate is IDAPA 58.01.01.317.01.b. There are no monitoring, recordkeeping, or reporting requirements for insignificant emission units or activities beyond those required in the facility-wide permit conditions.

Table 17.1 Insignificant Activities

Source Group	Description	Insignificant Activities IDAPA 58.01.01.317.01(b)(i) Citation
APP Reactor	Batch process for ammonium polyphosphate fertilizer	IDAPA 58.01.01.317.01(b)(i)(30)
Sulfuric Acid Plant #300	Tanks, pumps, and sumps including loading and unloading equipment for H ₂ SO ₄ (less than 99%)	IDAPA 58.01.01.317.01(b)(i)(19)
Sulfuric Acid Plant #300	Start-up Bypass Vent (Manual)	IDAPA 58.01.01.317.01(b)(i)(30)
Sulfuric Acid Plant #400	Tanks, pumps, and sumps including loading and unloading equipment for H ₂ SO ₄ (less than 99%)	IDAPA 58.01.01.317.01(b)(i)(19)
Sulfuric Acid Plant #400	Start-up Bypass Vent (Manual)	IDAPA 58.01.01.317.01(b)(i)(30)
Phosphoric Acid Plant	Tanks, pumps, and sumps including loading and unloading equipment for H ₂ SO ₄ (less than 99%)	IDAPA 58.01.01.317.01(b)(i)(19)
Phosphoric Acid Plant	Tank Farm Splitter Box, Cold Pits, Tanks	IDAPA 58.01.01.317.01(b)(i)(30)
Granulation #2	G2 Sump	IDAPA 58.01.01.317.01(b)(i)(30)
Ammonium Sulfate	Ammo Sulfate Sump	IDAPA 58.01.01.317.01(b)(i)(30)
Super Phosphoric Acid	Leaf Filters	IDAPA 58.01.01.317.01(b)(i)(30)
Super Phosphoric Acid	Tanks, pumps, and sumps including loading and unloading equipment for H ₂ SO ₄ (less than 99%)	IDAPA 58.01.01.317.01(b)(i)(19)
Maintenance Shops & Other Misc. Buildings	Solvent/Glue Usage	IDAPA 58.01.01.317.01(b)(i)(30)
Maintenance Shops & Other Misc. Buildings	Welding	IDAPA 58.01.01.317.01(b)(i)(9)
Maintenance Shops & Other Misc. Buildings	Natural Gas or Propane Heaters, Other Combustion Equipment	IDAPA 58.01.01.317.01(b)(i)(5), IDAPA 58.01.01.317.01(b)(i)(6)
Maintenance Shops & Other Misc. Buildings	Part Washers	IDAPA 58.01.01.317.01(b)(i)(26)
Maintenance Shops, Ore Thickener & Contractor Area	Solvent Storage and Misc. Chemical Storage	IDAPA 58.01.01.317.01(b)(i)(30)
Maintenance	Gauze Cleaning Building – Lab Hood Vent	IDAPA 58.01.01.317.01(b)(i)(30)
Machine Shop	Plasma Cutting	IDAPA 58.01.01.317.01(b)(i)(30)
Portable Equipment	Welders – Welding Emissions	IDAPA 58.01.01.317.01(b)(i)(9)
Portable Equipment	Combustion Sources such as welders, compressors, etc.	IDAPA 58.01.01.317.01(b)(i)(6)

Source Group	Description	Insignificant Activities IDAPA 58.01.01.317.01(b)(i) Citation
Ore Tanks	Storage tanks and associated pumping and handling equipment used for solids dewatering and flocculation	IDAPA 58.01.01.317.01(a)(i)(103)
Misc. Tanks, Vessels and Pumping Equipment	H2SO4 (less than 99%) H3PO4 (less than 99%) HNO3 (less than 70%) UAN32 (urea ammonium nitrate)	IDAPA 58.01.01.317.01(b)(i)(19)
Tanks – NH ₃ Plant	Low Pressure NH ₃ Storage	IDAPA 58.01.01.317.01(b)(i)(30)
Tanks	Hill Diesel Storage	IDAPA 58.01.01.317.01(b)(i)(20)
Tanks	Gasoline Storage Tanks (3000 gal)	IDAPA 58.01.01.317.01(b)(i)(3)
WWDLI System	Soda Ash Bins	IDAPA 58.01.01.317.01(b)(i)(30)

[IDAPA 58.01.01.317.01(a)(i) and (b)(i), 5/3/03]

18 General Provisions

General Compliance

- 18.1** The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application.
[IDAPA 58.01.01.322.15.a, 5/1/94; 40 CFR 70.6(a)(6)(i)]
- 18.2** It shall not be a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the terms and conditions of this permit.
[IDAPA 58.01.01.322.15.b, 5/1/94; 40 CFR 70.6(a)(6)(ii)]
- 18.3** Any permittee who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.
[IDAPA 58.01.01.315.01, 5/1/94; 40 CFR 70.5(b)]

Reopening

- 18.4** This permit may be revised, reopened, revoked and reissued, or terminated for cause. Cause for reopening exists under any of the circumstances listed in IDAPA 58.01.01.386. Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable in accordance with IDAPA 58.01.01.360 through 369.
[IDAPA 58.01.01.322.15.c, 5/1/94; IDAPA 58.01.01.386, 3/19/99; 40 CFR 70.7(f)(1), (2); 40 CFR 70.6(a)(6)(iii)]
- 18.5** The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[IDAPA 58.01.01.322.15.d, 5/1/94; 40 CFR 70.6(a)(6)(iii)]

Property Rights

- 18.6** This permit does not convey any property rights of any sort or any exclusive privilege.
[IDAPA 58.01.01.322.15.e, 5/1/94; 40 CFR 70.6(a)(6)(iv)]

Information Requests

- 18.7** The permittee shall furnish all information requested by DEQ, within a reasonable time, that DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
[Idaho Code §39-108; IDAPA 58.01.01.122, 4/5/00; IDAPA 58.01.01.322.15.f, 4/5/00; 40 CFR 70.6(a)(6)(v)]
- 18.8** Upon request, the permittee shall furnish to DEQ copies of records required to be kept by this permit. For information claimed to be confidential, the permittee may furnish such records along with a claim of confidentiality in accordance with Idaho Code §9-342A and applicable implementing regulations including IDAPA 58.01.01.128.
[IDAPA 58.01.01.322.15.g, 5/1/94; IDAPA 58.01.01.128, 4/5/00; 40 CFR 70.6(a)(6)(v)]

Severability

- 18.9** 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 58.01.01.322.15.h, 5/1/94; 40 CFR 70.6(a)(5)]

Changes Requiring Permit Revision or Notice

- 18.10** The permittee may not commence construction or modification of any stationary source, facility, major facility, or major modification without first obtaining all necessary permits to construct or an approval under IDAPA 58.01.01.213, or complying with IDAPA 58.01.01.220 through 223. The permittee shall comply with IDAPA 58.01.01.380 through 386 as applicable.
[IDAPA 58.01.01.200–223, 3/25/16; IDAPA 58.01.01.322.15.i, 3/19/99; IDAPA 58.01.01.380–386, 7/1/02; 40 CFR 70.4(b)(12), (14), (15); 40 CFR 70.7(d), (e)]
- 18.11** Changes that are not addressed or prohibited by the Tier I operating permit require a Tier I operating permit revision if such changes are subject to any requirement under Title IV of the Clean Air Act (CAA), 42 United States Code (U.S.C.) Section 7651 through 7651c, or are modifications under Title I of the CAA, 42 U.S.C. Section 7401 through 7515. Administrative amendments (IDAPA 58.01.01.381), minor permit modifications (IDAPA 58.01.01.383), and significant permit modifications (IDAPA 58.01.01.382) require a revision to the Tier I operating permit. IDAPA 58.01.01.502(b)(10) changes are authorized in accordance with IDAPA 58.01.01.384. Off permit changes and required notice are authorized in accordance with IDAPA 58.01.01.385.
[IDAPA 58.01.01.381–385, 4/5/00; IDAPA 58.01.01.209.05, 4/11/06; 40 CFR 70.4(b)(14), (15)]

Federal and State Enforceability

- 18.12** Unless specifically identified as a "state-only" provision, all terms and conditions in this permit, including any terms and conditions designed to limit a source's potential to emit, are enforceable: (i) by DEQ in accordance with state law; and (ii) by the United States or any other person in accordance with federal law.
[IDAPA 58.01.01.322.15.j, 5/1/94; 40 CFR 70.6(b)(1), (2)]
- 18.13** Provisions specifically identified as a "state-only" provision are enforceable only in accordance with state law. "State-only" provisions are those that are not required under the Federal Clean Air Act or under any of its applicable requirements or those provisions adopted by the state prior to federal approval.
[Idaho Code §39-108; IDAPA 58.01.01.322.15.k, 3/23/98]

Inspection and Entry

18.14 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 a Tier I 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; IDAPA 58.01.01.322.15.l, 5/1/94; 40 CFR 70.6(c)(2)]

New Applicable Requirements

18.15 The permittee shall comply with applicable requirements that become effective during the permit term on a timely basis.

[IDAPA 58.01.01.322.10, 4/5/00; IDAPA 58.01.01.314.10.a.ii, 5/1/94; 40 CFR 70.6(c)(3) citing 70.5(c)(8)]

Fees

18.16 The permittee shall pay annual registration fees to DEQ in accordance with IDAPA 58.01.01.387 through IDAPA 58.01.01.397.

[IDAPA 58.01.01.387, 4/2/03; 40 CFR 70.6(a)(7)]

Certification

18.17 All documents submitted to DEQ shall be certified in accordance with IDAPA 58.01.01.123 and comply with IDAPA 58.01.01.124.

[IDAPA 58.01.01.322.15.o, 5/1/94; 40 CFR 70.6(a)(3)(iii)(A); 40 CFR 70.5(d)]

Renewal

18.18 The permittee shall submit an application to DEQ for a renewal of this permit at least six months before, but no earlier than 18 months before, the expiration date of this operating permit. To ensure that the term of the operating permit does not expire before the permit is renewed, the permittee is encouraged to submit a renewal application nine months prior to the date of expiration.

[IDAPA 58.01.01.313.03, 4/5/00; 40 CFR 70.5(a)(1)(iii)]

18.19 If a timely and complete application for a Tier I operating permit renewal is submitted, but DEQ fails to issue or deny the renewal permit before the end of the term of this permit, then all the terms and conditions of this permit, including any permit shield that may have been granted pursuant to IDAPA 58.01.01.325, shall remain in effect until the renewal permit has been issued or denied.

[IDAPA 58.01.01.322.15.p, 5/1/94; 40 CFR 70.7(b)]

Permit Shield

18.20 Compliance with the terms and conditions of the Tier I operating permit, including those applicable to all alternative operating scenarios and trading scenarios, shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

- Such applicable requirements are included and are specifically identified in the Tier I operating permit; or
- DEQ has determined that other requirements specifically identified are not applicable and all of the criteria set forth in IDAPA 58.01.01.325.01(b) have been met.
- The permit shield shall apply to permit revisions made in accordance with IDAPA 58.01.01.381.04 (administrative amendments incorporating the terms of a permit to construct), IDAPA 58.01.01.382.04 (significant modifications), and IDAPA 58.01.01.384.03 (trading under an emissions cap).
- Nothing in this permit shall alter or affect the following:
 - Any administrative authority or judicial remedy available to prevent or terminate emergencies or imminent and substantial dangers;
 - The liability of a permittee for any violation of applicable requirements prior to or at the time of permit issuance;
 - The applicable requirements of the acid rain program, consistent with 42 U.S.C. Section 7651(g)(a); and
 - The ability of EPA to obtain information from a source pursuant to Section 114 of the CAA; or the ability of DEQ to obtain information from a source pursuant to Idaho Code §39-108 and IDAPA 58.01.01.122.

[Idaho Code §39-108 and 112; IDAPA 58.01.01.122, 4/5/00; IDAPA 58.01.01.322.15.m, 5/1/94; IDAPA 58.01.01.325, 3/19/99; IDAPA 58.01.01.381.04, 382.04, 383.05, 384.03, 385.03, 3/19/99; 40 CFR 70.6(f)]

Compliance Schedule and Progress Reports

18.21 The permittee shall comply with the following:

- For each applicable requirement for which the source is not in compliance, the permittee shall comply with the compliance schedule incorporated in this permit.
- For each applicable requirement that will become effective during the term of this permit and that provides a detailed compliance schedule, the permittee shall comply with such requirements in accordance with the detailed schedule.
- For each applicable requirement that will become effective during the term of this permit that does not contain a more detailed schedule, the permittee shall meet such requirements on a timely basis.
- For each applicable requirement with which the permittee is in compliance, the permittee shall continue to comply with such requirements.

[IDAPA 58.01.01.322.10, 4/5/00; IDAPA 58.01.01.314.9, 5/1/94; IDAPA 58.01.01.314.10, 4/5/00; 40 CFR 70.6(c)(3) and (4)]

Periodic Compliance Certification

18.22 The permittee shall submit compliance certifications during the term of the permit for each emissions unit to DEQ and the EPA as follows:

- The compliance certifications for all emissions units shall be submitted annually from January 1 to December 31 or more frequently if specified by the underlying applicable requirement or elsewhere in this permit by DEQ.
- The initial compliance certification for each emissions unit shall address all of the terms and conditions contained in the Tier I operating permit that are applicable to such emissions unit, including emissions limitations, standards, and work practices;
- The compliance certification shall be in an itemized form providing the following information (provided that the identification of applicable information may cross-reference the permit or previous reports as applicable):
 - The identification of each term or condition of the Tier I operating permit that is the basis of the certification;
 - The identification of the method(s) or other means used by the permittee for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the methods and means required under Subsections 322.06, 322.07, and 322.08;
 - The status of compliance with the terms and conditions of the Tier I operating permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in Subsection 322.11.c.ii above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and
 - Such information as DEQ may require to determine the compliance status of the emissions unit.

18.23 All original compliance certifications shall be submitted to DEQ and a copy of all compliance certifications shall be submitted to the EPA.

[IDAPA 58.01.01.322.11, 4/6/05; 40 CFR 70.6(c)(5)(iii) as amended, 62 Fed. Reg. 54900, 54946 (10/22/97); 40 CFR 70.6(c)(5)(iv)]

False Statements

18.24 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]

No Tampering

18.25 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]

Semiannual Monitoring Reports

18.26 In addition to all applicable reporting requirements identified in this permit, the permittee shall submit reports of any required monitoring at least every six months. The permittee's semiannual reporting periods shall be from January 1 to June 30 and July 1 to December 31. All instances of deviations from this operating permit's requirements must be clearly identified in the report. The semiannual reports shall be submitted to DEQ within 30 days of the end of the specified reporting period.

[IDAPA 58.01.01.322.15.q, 3/23/98; IDAPA 58.01.01.322.08.c, 4/5/00; 40 CFR 70.6(a)(3)(iii)]

Reporting Deviations and Excess Emissions

18.27 The permittee shall promptly report all deviations from permit requirements including upset conditions, their probable cause, and any corrective actions or preventive measures taken. For excess emissions, the report shall be made in accordance with IDAPA 58.01.01.130–136. For all other deviations, the report shall be made in accordance with IDAPA 58.01.01.322.08.c, unless otherwise specified in this permit.

[IDAPA 58.01.01.322.15.q, 3/23/98; IDAPA 58.01.01.135, 4/11/06; 40 CFR 70.6(a)(3)(iii)]

Permit Revision Not Required

18.28 No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit.

[IDAPA 58.01.01.322.05.b, 4/5/00; 40 CFR 70.6(a)(8)]

Emergency

18.29 In accordance with IDAPA 58.01.01.332, an “emergency”, as defined in IDAPA 58.01.01.008, constitutes an affirmative defense to an action brought for noncompliance with such technology-based emissions limitation if the conditions of IDAPA 58.01.01.332.02 are met.

[IDAPA 58.01.01.332.01, 4/5/00; 40 CFR 70.6(g)]