Air Quality

TIER I OPERATING PERMIT

Permittee	**J. R. Simplot Company - Don Siding**
Permit Number	**T1-2007.0109**
Project ID	**0109**
Facility ID	**077-00006**
Facility Location	**Section 18 R-34-E, T-6-S;** **5½ Section 7 R-34-E T-6-S** **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 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 the cover page.

Date Issued	**Draft for Public Comment**
Date Expires	

Shawnee Chen, P.E., Permit Writer

Mike Simon, Stationary Source Manager

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Acronyms, Units, and Chemical Nomenclature

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	continuous emissions monitoring system
cf	cubic feet
CFR	Code of Federal Regulations
CI	compression ignition
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
dscm	dry standard cubic meters
EPA	U.S. Environmental Protection Agency
gpm	gallons per minute
gr	grain (1 lb = 7,000 grains)
HAPs	hazardous air pollutants
hp	horsepower
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
m	meter(s)
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
MMBtu/hr	million British thermal units per hour
MMcf	million cubic feet
NA	not applicable
NAICS	North American Industry Classification System
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
O&M	Operations and Maintenance
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	permit to construct

PTE	potential to emit
QIP	Quality Improvement Plan
RACT	reasonably available control technology
RICE	reciprocating internal combustion engines
RMP	Risk Management Plan required under 40 CFR 68 subpart G
scf	standard cubic feet
SI	spark ignitionSIC
SIC	Standard Industrial Classification
SIP	State Implementation Plan
Simplot	J. R. Simplot Co. - Don Siding Plant
SM	synthetic minor
SO_2	sulfur dioxide
SO_x	sulfur oxides
SOPs	Standard Operating Procedures
SPA	superphosphoric acid
Tier I	Tier I operating permit
Tier II	Tier II operating permit
TSP	Triple superphosphate
T/yr	tons per year
$\mu g/m^3$	micrograms per cubic meter
U.S.C.	United States Code
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. TIER I OPERATING PERMIT SCOPE

Purpose

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

This permitting action is a Tier I renewal. This Tier I renewal has addressed Compliance Assurance Monitoring (CAM) for the first time. This Tier I renewal has also included 40 CFR 63, Subpart ZZZZ for the emergency generators and 40 CFR 60, Subpart PP for the ammonium sulfate dryer for the first time.

1.2 This Tier I permit incorporates the following permits, consent orders, and settlement agreement:

- PTC No. P-2009.0053, issued November 5, 2009, Addition of a 10-acre Decant Pond
- PTC No. 077-00006, issued December 12, 2001, Granulation No. 3 Plant Upgrade
- PTC No. 077-00006, issued June 15, 2001, 300 Sulfuric Acid Plant Restoration Project
- PTC No. 077-00006, issued September 20, 2000, Boiler Replacement
- Tier II Permit No. 077-00006, issued December 3, 1999, expired June 29, 2000
- PTC No. 077-00006, issued November 12, 1999, Granulation No. 3 Defluorination Project
- PTC No. 077-00006, issued September 13, 1995, Granulation No. 3 East Dry Bulk Station
- PTC No. 077-00006, issued June 16, 1995, Babcock and Wilcox Boiler
- PTC No. 1260-0060, issued April 17, 1990, Extended Absorption Scrubber
- Consent Order, signed September 1, 2004, Fluoride in Forage (State-only)
- Compliance Agreement and Voluntary Order, signed April 16, 2004, RACT Limits
- Consent Order, signed January 21, 2009, Modified Operating Procedures for Ammonium Sulfate Plant
- Consent Order, signed May 29, 2012, SO_2 Emission Limit and Throughput Limit for Sulfuric Acid Plant No.400.

1.3 This Tier I operating permit supersedes the following permit:

- Tier I No. T1-040313, issued on November 8, 2005

Regulated Sources

1.4 Table 1.1 lists all sources of emissions regulated in this Tier I operating permit.

Table 1.1 REGULATED SOURCES

Permit Sections	Source Description	Emissions Control(s)
3	Caterpillar Boiler Generator (an emergency CI generator) 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	None

Permit Sections	Source Description	Emissions Control(s)
	Cummins Ore Receiving Generator (an emergency CI generator) 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 TG Turning Gear (an emergency SI generator) Manufacturer: Onan Rated capacity: 42.5 brake hp Fuel type: natural gas Manufactured date: 1987 Sub 3400 (an emergency SI generator) Manufacturer: Onan Rated capacity: 90 brake hp Fuel type: natural gas Manufactured date: 1997 PPA Generator (Phone system, an emergency SI generator) Manufacturer: Onan Rated capacity: 58 brake hp Fuel type: natural gas Manufactured date: 1995	
4	Ammonium sulfate plant 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	Refer to Section 4 for details
5	HPB&W boiler 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	None
6	Babcock and Wilcox boiler 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
7	Granulation No. 1 process 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	Refer to Section 7 for details

Permit Sections	Source Description	Emissions Control(s)
	Material handling rated capacity: 54.2 T/hr phosphate product Material handling equipment installed date: 1961 Material handling equipment last modified date: 1992	
8	Granulation No. 2 process 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	Refer to Section 8 for details
9	Granulation No. 3 process 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: 1997 Defluorination process rated capacity: 21 T/hr phosphate product, 12 P_2O_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	Refer to Section 9 for details
10	Gypsum stack (pile) A fugitive source. Refer to Section 10 for details.	Refer to Section 10 for details.
11	10-acre decant pond	None
12	Phosphoric acid manufacturing plants Manufacturer: Mulberry Welding and Simplot Rated capacity: 64.6 T/hr phosphoric acid, P_2O_5 equivalent Installed date: 1985 Last modified date: 1992	Refer to Section 12 for details
13	Plant roads Fugitive source	Refer to Section 13 for details
14	Evaporative cooling towers Manufacturer: east tower by Fluor, west tower by Lillie-Hoffman, and north tower by Thermal Dynamic Installed date: 1966 Last modified dates: 1976, 1990	Refer to Section 14 for details
15	Superphosphoric acid (SPA) plant Manufacturer: various manufacturers including Simplot Rated capacity: 55 T/hr SPA, 69% of P_2O_5 equivalent Installed date: 1972 Last modified date: 1999	Refer to Section 15 for details
16	Sulfuric acid plant No. 300 Manufacturer: Monsanto Rated capacity: 1,750 T/day or 72.9 T/hr 100% H_2SO_4 Installed date: February 1966 Last modified date: 2001	Refer to Section 16 for details
17	Sulfuric acid plant No. 400 Manufacturer: Chemetics Rated capacity: 166.7 T/hr 100% H_2SO_4 Installed date: January 1986 Last modified date: 1992 - stack; 1993 economizer	Refer to Section 17 for details

2. FACILITY-WIDE CONDITIONS

The following table contains a summary of requirements that apply generally to emissions units at the facility.

Table 2.1 APPLICABLE REQUIREMENTS SUMMARY

Permit Condition	Parameter	Permit Limit/ Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
2.1	Fugitive dust	Reasonable control	IDAPA 58.01.01.650-651	2.2, 2.3, 2.4, 2.11
2.5	Odors	Rules for Control of Odors	IDAPA 58.01.01.775-776	2.6, 2.11
2.7	Visible emissions	20% opacity for no more than three minutes in any 60-minute period	IDAPA 58.01.01.625	2.8, 2.11
2.9	Excess emissions	Compliance with IDAPA 58.01.01.130-136	IDAPA 58.01.01.130-136	2.9-2.9.5, 2.11
2.10, 2.10.2	Criteria air pollutants, NH_3, opacity	Compliance testing	IDAPA 58.01.01.157	2.12, 2.11, 2.10.1
2.10.1	Air quality standards	EPA reference test methods	IDAPA 58.01.01.157	2.11, 2.10
2.13	Fuel-burning equipment	Compliance with IDAPA 58.01.01.676-677	IDAPA 58.01.01.676	2.11
2.14	Fuel sulfur content limit	No. 1 fuel - 0.3% or less; No. 2 fuel - 0.5% or less	IDAPA 58.01.01.728	2.11, 2.14.1
2.15	Open burning	Compliance with IDAPA 58.01.01.600-616	IDAPA 58.01.01.600-616	2.11
2.16	Renovation and demolition	Compliance with 40 CFR 61, Subpart M	40 CFR 61, Subpart M	2.11
2.17	Chemical accident prevention	Compliance with 40 CFR 68	40 CFR 68	2.11
2.18	Recycling and emissions reduction	Reduce emissions of Class I and Class II refrigerants in accordance with 40 CFR 82, Subpart F	40 CFR 82, Subpart F	2.11
2.20	Special studies	Maintain records of material flow; Monitor ambient fluoride in vegetation used for feed and forage	Tier II Permit No. 077-00006	2.11,2.21

Fugitive Dust

2.1 All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.

[IDAPA 58.01.01.650-651, 5/1/94]

2.2 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 dust emissions.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

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

[IDAPA 58.01.01.322.06, 07, 5/1/94]

2.4 Except for Granulation No.3 plant, the permittee shall conduct a monthly facility-wide inspection of potential sources of fugitive dust emissions, during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive dust emissions are effective. If fugitive dust emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive dust emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive emissions were present (if observed), any corrective action taken in response to the fugitive dust emissions, and the date the corrective action was taken.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

Odors

2.5 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]

2.6 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 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

2.7 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, nitrogen oxides, 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, PTC No. 077-00006, 12/12/01]

2.8 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 action and report the exceedance in its annual compliance certification and in accordance with IDAPA 58.01.01.130-136.

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 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00; PTC No. 077-00006, 12/12/01]

Excess Emissions

Excess Emissions - General

2.9 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 Permit Condition 2.9 and the regulations of IDAPA 58.01.01.130-136.

2.9.1 The person responsible for or in charge of a facility during an excess emissions event 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, Scheduled Maintenance

2.9.2 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 owner or operator of the facility or emissions unit generating the excess emissions shall demonstrate compliance with IDAPA 58.01.01.133.01(a) through (d), including, but not limited to, the following:

[IDAPA 58.01.01.133, 4/5/00]

2.9.2.1 No scheduled startup, shutdown, or maintenance resulting in excess emissions shall occur during any period in which an Atmospheric Stagnation Advisory and/or a Wood Stove Curtailment Advisory has been declared by the Department within an area designated by the Department as a PM10 nonattainment area, unless the permittee demonstrates that such is reasonably necessary to facility operations and cannot be reasonably avoided and the Department approves such activity in advance, to the extent advance approval by the Department is feasible. This prohibition on scheduled startup, shutdown or maintenance activities during Advisories does not apply to situations where shutdown is necessitated by urgent situations, such as imminent equipment failure, power curtailment, worker safety concerns or similar situations.

[IDAPA 58.01.01.133.01.a, 3/20/97]

2.9.2.2 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 owner or operator demonstrates to DEQ's satisfaction that a shorter advance notice was necessary.

[IDAPA 58.01.01.133.01.b, 4/5/00]

2.9.2.3 The owner or operator of a source of excess emissions shall report and record the information required pursuant to Permit Conditions 2.9.4 and 2.9.5 and IDAPA 58.01.01.135 and 136 for each excess emissions event due to startup, shutdown, or scheduled maintenance.

[IDAPA 58.01.01.133.01.c, 3/20/97]

Excess Emissions – Upset, Breakdown, or Safety Measures

2.9.3 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 owner or operator of the facility or

emissions unit generating the excess emissions shall demonstrate compliance with IDAPA 58.01.01.134.01(a) and (b) and the following:

[IDAPA 58.01.01.134, 4/5/00]

2.9.3.1 For all equipment or emissions units from which excess emissions result during upset or breakdown conditions, or for other situations that may necessitate the implementation of safety measures which cause excess emissions, the facility owner or operator shall comply with the following:

[IDAPA 58.01.01.134.02, 4/5/00]

The owner or operator shall 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.

[IDAPA 58.01.01.134.02.a, 4/5/00]

The owner or operator shall 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 owner or operator demonstrates to DEQ's satisfaction that the longer reporting period was necessary.

[IDAPA 58.01.01.134.02.b, 4/5/00]

The owner or operator shall report and record the information required pursuant to Permit Conditions 2.9.4 and 2.9.5 and IDAPA 58.01.01.135 and 136 for each excess emissions event caused by an upset, breakdown, or safety measure.

[IDAPA 58.01.01.134.02.c, 3/20/97]

2.9.3.2 During any period of excess emissions caused by upset, breakdown, or operation under facility safety measures, DEQ may require the owner or operator 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 facility owner or operator.

[IDAPA 58.01.01.134.03 4/5/00]

Excess Emissions – Reporting and Recordkeeping

2.9.4 A written report for each excess emissions event shall be submitted to DEQ by the owner or operator 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 58.01.01.135.01 and 02, 3/20/97]

2.9.5 The owner or operator 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:

[IDAPA 58.01.01.136.01, 02, 3/20/97; IDAPA 58.01.01.136.03, 4/5/00]

- 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

[IDAPA 58.01.01.136.03.a, 4/5/00]

- Copies of all startup, shutdown, and scheduled maintenance procedures and upset, breakdown, or safety preventative maintenance plans that have been developed by the owner or operator in

accordance with IDAPA 58.01.01.133 and 134, and facility records as necessary to demonstrate compliance with such procedures and plans.

[IDAPA 58.01.01.136.03.b, 3/20/97]

Performance Testing

2.10 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.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

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

The permittee shall submit a compliance test report for the respective test to DEQ within 30 days following the date in which a compliance test required by this permit is concluded. The compliance test report shall include all process operating data collected during the test period as well as the test results, raw test data, and associated documentation, including any approved test protocol.

The proposed test date(s), test date rescheduling notice(s), compliance test report, and all other correspondence shall be sent to the following address:

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

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

Test Methods

2.10.1 If testing is required, the permittee shall use the test methods described in Table 2.2 to measure the pollutant emissions.

Table 2.2 TEST METHODS

Facility	SO_2	H_2SO_4	NO_x	CO	PM	PM_{10}	F	NH_3	TRS	O_2	Opacity
300 Sulfuric	8	8	7e		5 & 202	5 and 202, or 201A[2] and 202		CTM 027[1]		3a & 19	9
400 Sulfuric	8	8	7e			5 and 202, or 201A[2] and 202					9
HPB&W Boiler										3a & 19	
Granulation I					5 & 202	5 and 202, or 201A[2] and 202	13B	CTM 027			9
Granulation II					5 & 202	5 and 202, or 201A[2] and 202	13B	CTM 027			9
Granulation III					5 & 202	5 and 202	13B				9
Reclaim Cooling Tower					5 & 202	5 and 202	13B				9
Superphosphoric Acid			7e	10			13B				9
Phosphoric Acid					5 & 202	5 and 202, or 201A[2] and 202	13B		16a		9
Ammonium Sulfate					5 & 202	5 and 202, or 201A[2] and 202					9

[1] Conditional test method (CTM-027)
[2] 201A cannot be used on stacks with water droplets present.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

2.10.2 By December 15 of each year, the permittee shall submit to DEQ, a tentative schedule of the source testing to be performed during the following calendar year.

[Tier II Permit No. 077-00006, 12/3/99]

Monitoring and Recordkeeping

2.11 The permittee shall maintain sufficient records to assure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, 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 58.01.01.322.07, 5/1/94]

Reports and Certifications

2.12 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 by General Provision 21 shall also be submitted within 30 days of the end of the specified reporting period to:

EPA Region 10
Air Operating Permits, OAQ-107
1200 Sixth Ave.
Seattle, WA 98101

[IDAPA 58.01.01.322.08, 11, 5/1/94]

Fuel-Burning Equipment

2.13 The permittee shall not discharge PM to the atmosphere from any fuel-burning equipment in excess of 0.015 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

2.14 The permittee shall not sell, distribute, use, or make available for use any 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.

[IDAPA 58.01.01.728, 5/1/94]

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

[IDAPA 58.01.01.322.06, 5/1/94]

Open Burning

2.15 The permittee shall comply with the *Rules for Control of Open Burning*, IDAPA 58.01.01.600-623.

[IDAPA 58.01.01.600-623, 05/08/09]

Asbestos

2.16 The permittee shall comply with all applicable portions of 40 CFR 61, Subpart M - Asbestos.

[40 CFR 61, Subpart M]

Regulated Substances for Accidental Release Prevention

2.17 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, 5/1/94; 40 CFR 68.215(a)(2)(ii)]

Recycling and Emissions Reductions

2.18 The permittee shall comply with applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, Recycling and Emissions Reduction.

[40 CFR 82, Subpart F]

Documentation for Exemptions under IDAPA 58.01.01.200

2.19 Unless the source is subject to, and the owner or operator complies with, IDAPA 58.01.01.385, the owner or operator of the source, except for those sources listed in IDAPA 58.01.01.222.02.a. through 222.02.g, shall maintain documentation on site that shall identify the exemption determined to identify the source and verify that the source qualifies for the identified exemption. The records shall

be kept for a period of time not less than five years from the date the exemption determination has been made or for the life of the source for which the exemption has been determined to apply, whichever is greater, or until such time as a permit to construct or an operating permit is issued which covers the operation of the source. The owner or operator shall submit the documentation to DEQ upon request.

[IDAPA 58.01.01.220.02, 4/5/00; IDAPA 58.01.01.322.01, 3/19/99]

Special Studies

2.20 The permittee shall comply with the following DEQ approved documents as required in 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); IDAPA 58.01.01.322.01, 3/19/99; IDAPA 58.01.01.322.07, 5/1/94]

Reporting Requirements for Ambient Fluoride Monitoring

2.21 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.

[Tier II Permit No. 077-00006, 12/3/99 (state-only)]

40 CFR 64 - Compliance Assurance Monitoring (CAM)

2.22 Permit Conditions 2.23 to 2.25 apply to each emissions unit subject to CAM.

[40 CFR 64]

2.23 **Operation of Approved Monitoring**

(a) *Commencement of operation*. The owner or operator shall conduct the monitoring required under this part (i.e., 40 CFR 64) upon issuance of a part 70 or 71 permit (i.e., Tier I OP renewal) that includes such monitoring, or by such later date specified in the permit pursuant to 40 CFR 64.6(d)

(b) *Proper maintenance*. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(c) *Continued operation.* 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 owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator 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.

(d) *Response to excursions or exceedances*. (1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (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.

(2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(e) *Documentation of need for improved monitoring.* After approval of monitoring under this part, if the owner or operator 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 owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit (i.e., Tier I OP) 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]

2.24 **Quality Improvement Plan (QIP) Requirements**

The permittee shall comply with QIP requirements if they are required in accordance with 40 CFR 64.8.

[40 CFR 64.8]

2.25 **Reporting and Recordkeeping Requirements**

(a) *General reporting requirements.* (1) On and after the date specified in 40 CFR 64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part (i.e., 40 CFR 64) the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 CFR 70.6(a)(3)(iii).

(2) A report for monitoring under this part (i.e., 40 CFR 64) shall include, at a minimum, the information required under 40 CFR 70.6(a)(3)(iii) and the following information, as applicable:

(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(ii) 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); and

(iii) A description of the actions taken to implement a Quality Improvement Plan (QIP) during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

(b) *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 CFR 70.6(a)(3)(ii). The owner or operator 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).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 CFR 64.9]

2.26 NSPS 40 CFR 60, Subpart A –General Provisions

The permittee shall comply with the requirements of 40 CFR 60, Subpart A – General Provisions. A summary of applicable requirements for affected facilities is provided in Table 2.3.

Table 2.3 NSPS 40 CFR 60, Subpart A – Summary of General Provisions for Owners and Operators of Affected Facilities

Section	Subject	Summary of Section Requirements
60.4	Address(es)	***For delegated NSPS.*** • All requests, reports, applications, submittals, and other communications associated with 40 CFR 60, Subparts (i.e., Subparts Db, Dc, H, and PP) shall be submitted to: Pocatello Regional Office Department of Environmental Quality 444 Hospital Way Pocatello
60.7(a),(b), and (f)	Notification and Recordkeeping	• 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.
60.7(a),(c), (d), (e), and (f)	Notification and Recordkeeping (CMS)	• Notification shall be furnished of the date upon which demonstration of the CMS performance commences. • Excess emissions and monitoring systems performance report shall be submitted semiannually, postmarked by January 30th and July 30th. Reports shall contain the information and be in the format specified in 40 CFR 60.7(c) and (d). • Records of CEMS subhourly measurements shall be maintained in accordance with the requirements of 40 CFR 60.7(f).
60.8	Performance Tests	• 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: 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), and (g)	Compliance with Standards and Maintenance Requirements	• 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

Section	Subject	Summary of Section Requirements
		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)	• 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).
60.12	Circumvention	• 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)	• 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	• 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	• 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]

2.27 Incorporation of Federal Requirements by Reference

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.

[40 CFR 60, 61, 63]

3. EMISSIONS UNIT GROUP 1: EMERGENCY GENERATORS

Summary Description

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

Table 3.1 describes the devices used to control emissions from the emergency generators.

Table 3.1 EMISSIONS UNITS AND EMISSIONS CONTROL DEVICES

Emissions Unit / Process	Source ID	Emissions Control Device	Emission Point
Caterpillar Boiler Generator (CI RICE, 755 hp)	1003	None	Engine stack
Cummins Ore Receiving Generator (CI RICE, 535 hp)	1216.1	None	Engine stack
TG Turning Gear (SI RICE 42.5 hp)	1220	None	Engine stack
Sub 3400 (SI RICE, 90 hp)	1225	None	Engine stack
PPA Generator (Phone system, SI RICE, 58 hp)	250	None	Engine stack

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

3.1 **Affected Source - 40 CFR 63.6590 What parts of my plant does this subpart cover?**

3.1.1 In accordance with 40 CFR 63.6590(a), the five emergency RICEs are existing stationary RICEs located at major source of HAP emissions. The three SI RICEs among these five emergency RICEs are subject to the requirements in this subpart.

3.1.2 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]

3.2 **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

3.3 **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:

a. Change 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 3.5.4 in order to extend the specified oil change requirement in Table 2c of this subpart;

b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and

c. 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]

3.4 **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]

3.5 **40 CFR 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?**

3.5.1 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.

3.5.2 In accordance with 40 CFR 63.6625 (f), the permittee shall install a non-resettable hour meter if one is not already installed.

3.5.3 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.

3.5.4 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

3.6 **40 CFR 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?**

3.6.1 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.

3.6.2 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 3.3

3.6.3 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.

Compliance Requirements

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 permttee do 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 limit 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

3.7 **40 CFR 63.6655 What records must I keep?**

3.7.1 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).

3.7.2 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 3.6.1) to show continuous compliance with each operating limitation that applies to you.

3.7.3 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.

3.7.4 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]

3.8 **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

3.9 **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]

4. 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 loadout.

Recycled Ammsox® scrubber liquor from sulfuric acid plant No.300 is transferred to the reactor where sulfuric acid and ammonia are added. The product, crystallized ammonium sulfate, is formed in the reactor, removed from the mother liquor by a centrifuge, and transferred to a dryer and then a cooler. Emissions from the dryer, cooler, cooler elevator, and reactor are controlled as specified in Table 4.1.

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

Table 4.1 EMISSIONS UNITS, CONTROL DEVICES, AND POINTS

Emissions Unit(s) / Process(es)	Source ID	Emissions Control Device	Emission Point
Dryer	500	Dryer Venturi scrubber	Dryer stack
Cooler	501	Cooler Venturi scrubber	Cooler stack
Cooler elevator	504.1		
Reactor (crystallizer)	503	Barometric condenser	Vacuum pump vent
Product stockpile and associated materials transfer to and from product stockpile	550, 551, 552	Building enclosure	Fugitive
Bucket elevator material transfer	553, 554	Wind protection	

Table 4.2 contains only a summary of the requirements that apply to the ammonium sulfate plant. Specific permit requirements are listed below Table 4.2.

Table 4.2 SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
4.1	PM	2.44 lb/hr, 10.68 T/yr	Tier II Permit No. 077-00006 IDAPA 58.01.01.701	4.9, 4.10, 4.11, 4.15, 4.16, 4.17
4.2	PM	Process weight rate	IDAPA 58.01.01.701	4.9, 4.10, 4.11, 4.15, 4.16, 4.17
4.3	PM_{10}	2.0 lb/hr, 8.76 T/yr	Tier II Permit No. 077-00006	4.9, 4.10, 4.11, 4.15, 4.16, 4.17
4.4	SO_2	0.0007 lb/hr, 0.003 T/yr	Tier II Permit No. 077-00006	4.12
4.5	CO	0.07 lb/hr, 0.3 T/yr		
4.6	NO_x	0.25 lb/hr, 1.1 T/yr		
4.7	Fugitive PM	2.52 lb/hr, 11.04 T/yr	Tier II Permit No. 077-00006	4.13
4.8	Fugitive PM_{10}	0.90 lb/hr, 3.92 T/yr	Tier II Permit No. 077-00006	4.14

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
4.18	PM	0.3 lb/T ammonium sulfate produced 15% opacity	40 CFR 60, Subpart PP (Only apply to the ammonium sulfate dryer)	4.19, 4.20

Permit Limits / Standard Summary

4.1 The total PM emissions from the combined dryer and cooler stacks shall not exceed 2.44 lb/hr and 10.68 T/yr. The ton-per-year rate shall be determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the actual hours per year the process(es) venting to this stack operate(s).

[Tier II Permit No. 077-00006, 12/03/99]

4.2 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:

a. If PW is less than 9,250 lb/hr,

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

b. 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]

4.3 The total PM_{10} emissions from the combined dryer and cooler stacks shall not exceed 2.0 lb/hr and 8.76 T/yr. The ton-per-year rate 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).

[Tier II Permit No. 077-00006, 12/03/99]

4.4 The total SO_2 emissions from the combined dryer and cooler stacks shall not exceed 0.0007 lb/hr and 0.003 T/yr.

[Tier II Permit No. 077-00006, 12/03/99]

4.5 The total CO emissions from the combined dryer and cooler stacks shall not exceed 0.07 lb/hr and 0.3 T/yr.

[Tier II Permit No. 077-00006, 12/03/99]

4.6 The total NO_x emissions from the combined dryer and cooler stacks shall not exceed 0.25 lb/hr and 1.1 T/yr.

[Tier II Permit No. 077-00006, 12/03/99]

4.7 Fugitive particulate emissions from this process shall not exceed 2.52 lb/hr and 11.04 T/yr.

[Tier II Permit No. 077-00006, 12/03/99]

4.8 Fugitive PM_{10} emissions from this process shall not exceed 0.90 lb/hr and 3.92 T/yr.

[Tier II Permit No. 077-00006, 12/03/99]

Operating Requirements

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

[Tier II Permit No. 077-00006, 12/03/99; IDAPA 58.01.01.322.01, 3/19/99]

4.10 Within 60 days of permit issuance, 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 4.1 through 4.3. 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 4.11.

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.

[IDAPA 58.01.01.322.01, 3/19/99]

4.10.1 The permittee shall follow the modified operating procedures specified as follows:

- 2-02 Manual Product Size Test
- 2-24 Bypassing the Cooler & Shutting Cooler Screw Down

The permittee shall follow the auditing procedures for the above modified operating procedures.

[Consent Order 1/21/2009]

Compliance Tests

4.11 The permittee shall conduct a compliance test once per annum to demonstrate compliance with hourly PM and PM_{10} emissions limits in Permit Conditions 4.1 and 4.3.

4.11.1 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.

4.11.2 The permittee shall conduct a visible emissions evaluation during each PM/PM_{10} compliance test. The visible emissions evaluation shall be conducted in accordance with the procedures contained in IDAPA 58.01.01.625.

[IDAPA 58.01.01.322.06, 07, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

Monitoring and Recordkeeping Requirements

4.12 To demonstrate compliance with emissions limits in Permit Conditions 4.4 through 4.6, 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.

[IDAPA 58.01.01.322.01, 3/19/99; IDAPA 58.01.01.322.06 & .07, 5/1/94]

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

[IDAPA 58.01.01.322.06 & .07, 5/1/94]

4.12.2 The permittee shall calculate the emissions of SO_2, CO, and NO_x from the dryer on a monthly basis using AP-42 Section 1.4 (7/98) emission factors, or a DEQ-approved alternative.

[IDAPA 58.01.01.322.06 & .07, 5/1/94]

4.13 The permittee shall maintain the documentation that lists the methods to control fugitive emissions and to demonstrate compliance with the fugitive PM emission limits in Permit Condition 4.7.

[IDAPA 58.01.01.322.06 & .07, 5/1/94]

4.14 The permittee shall maintain the documentation that lists the methods to control fugitive emissions to demonstrate compliance with the fugitive PM_{10} emission limits in Permit Condition 4.8.

[IDAPA 58.01.01.322.06 & .07, 5/1/94]

4.15 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).

[Tier II Permit No. 077-00006, 12/3/99; IDAPA 58.01.01.322.06 & .07, 5/1/94]

4.16 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.

[Tier II Permit No. 077-00006, 12/3/99; IDAPA 58.01.01.322.06 & .07, 5/1/94]

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

[Tier II Permit No. 077-00006, 12/3/99]

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

4.18 **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]

4.19 **40 CFR 60 Subpart PP - § 60.423 Monitoring of operations**

4.19.1 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

[40 CFR 60.423(a)]

4.19.2 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(b)]

4.20 **40 CFR 60 Subpart PP - § 60.424 Test methods and procedures**

4.20.1 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).

[40 CFR 60.424(a)]

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

(1) 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).

(2) Method 5 shall be used to determine the particulate matter concentration (c_s) and volumetric flow rate (Qsd) 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).

(3) 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=ABCK1/4

where:

A=sulfuric aid 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.

K1/4=conversion factor, 0.0808 (Mg-min-cc)/(g-hr-liter) [0.0891 (ton-min-cc)/(g-hr-liter)].

(4) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine the opacity.

[40 CFR 60.424(b)]

5. EMISSIONS 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 5.1 specifies the emissions point related to the emissions unit.

Table 5.1 EMISSIONS UNIT AND POINT

Source ID	Emissions Unit	Emissions Control Device	Emissions Point
1000.0	HPB&W boiler	N/A	Boiler stack

Table 5.2 contains only a summary of the requirements that apply to the HPB&W boiler. Specific permit requirements are listed below Table 5.2.

Table 5.2 SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
5.1	PM/PM_{10}	1.33 lb/hr, 5.83 T/yr	PTC No. 077-00006	5.7, 5.8, 5.9, 5.10, 5.11
5.2	SO_2	0.11 lb/hr, 0.46 T/yr	PTC No. 077-00006	5.7, 5.8, 5.9, 5.10, 5.11,5.12
5.3	NO_x	7.00 lb/hr, 30.7 T/yr	PTC No. 077-00006	5.7, 5.8, 5.9, 5.10, 5.11,5.12
5.4	NO_x	0.04 lb/MMBtu	PTC No. 077-00006	5.9, 5.13, 5.15, 5.16.3, 5.16.4
5.13		0.2 lb/MMBtu	40 CFR 60.44b(a)(1)	5.13, 5.14, 5.15, 5.16
5.5	VOC	0.96 lb/hr, 4.22 T/yr	PTC No. 077-00006	5.7, 5.8, 5.9, 5.10, 5.11,5.12
5.6	CO	14.0 lb/hr, 61.3 T/yr	PTC No. 077-00006	
5.7	Fuel usage	0.175 MMcf/hr, 1,533 MMcf/yr	PTC No. 077-00006,	5.10

Permit Limits / Standard Summary

5.1 The PM and PM_{10} emissions shall not exceed 1.33 lb/hr and 5.83 T/yr.

[PTC No. 077-00006, 9/20/00]

5.2 The SO_2 emissions shall not exceed 0.11 lb/hr and 0.46 T/yr.

[PTC No. 077-00006, 9/20/00]

5.3 The NO_x emissions shall not exceed 7.00 lb/hr and 30.7 T/yr.

[PTC No. 077-00006, 9/20/00; 40 CFR 52.670 (d), 8/14/06]

5.4 The NO_x emissions shall not exceed 0.04 lb/MMBtu.

[PTC No. 077-00006, 9/20/00]

5.5 The VOC emissions shall not exceed 0.96 lb/hr and 4.22 T/yr.

[PTC No. 077-00006, 9/20/00]

5.6 The CO emissions shall not exceed 14.0 lb/hr and 61.3 T/yr.

[PTC No. 077-00006, 9/20/00]

Operating Requirement

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

[PTC No. 077-00006, 9/20/00]

5.8 The boiler shall only use natural gas as fuel.

[PTC No. 077-00006, 9/20/00]

Monitoring and Recordkeeping Requirements

5.9 An O&M manual for the 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. 077-00006, 9/20/00]

5.10 Each operating day, the permittee shall monitor and record the natural gas usage 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. 077-00006, 9/20/00]

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

[IDAPA 58.01.01.06, .07, 5/1/94]

5.12 The permittee shall calculate the emissions of VOC, SO_2, CO, and NO_x from the boiler on a monthly basis using AP-42 Section 1.4 (7/98) emission factors, or a DEQ-approved alternative.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

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

5.13 **40 CFR 60 Subpart Db - § 60.44b Standard for nitrogen oxides (NO_X)**

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

[40 CFR 60.44b(l)(1)]

5.13.2 Compliance with the NO_x emissions limits in Permit Conditions 5.4 and 5.13.1 are determined on a 30-day rolling average basis.

[PTC No. 077-00006, 9/20/00; 40 CFR 60.44b(i)]

5.13.3 For purposes of compliance with Permit Condition 5.13.2, the NO_x standards in Permit Condition 5.4 and 5.13.1 apply at all times including periods of startup, shutdown, or malfunction.

[PTC No. 077-00006, 9/20/00; 40 CFR 60.44b(h)]

5.14 **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)

40 CFR 60.46b(e)(1) fulfilled.

40 CFR 60.46b(e)(2) and 40 CFR 60.46b(e)(3) Do not apply.

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(e)(5) Does not apply.

[40 CFR 60.46b(c) & (e)(1) & (4)]

5.15 **40 CFR 60 Subpart Db - § 60.48b 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 60.48b(g)(1)]

5.15.1 The permittee shall install, calibrate, maintain, and operate a CEMS for measuring NOx and O_2 (or CO_2) emissions discharged to the atmosphere, and shall record the output of the system.

[40 CFR 60.48b(b); 40 CFR 52.670 (d), 8/14/06]

5.15.2 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.

[PTC No. 077-00006, 9/20/00; 40 CFR 60.48b(c); 40 CFR 52.670 (d), 8/14/06]

5.15.3 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 60.48b(d); 40 CFR 52.670 (d), 8/14/06]

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 O_2 or ng/J of pollutant).

[PTC No. 077-00006, 9/20/00; 40 CFR 48b(d), and 60.13(h)(2)]

5.15.4 The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

[PTC No. 077-00006, 9/20/00; 40 CFR 60.48b(e); 40 CFR 52.670 (d), 8/14/06]

The span value for the NO_x CEMS is 500 ppm.

[PTC No. 077-00006, 9/20/00; 40 CFR 60.48b(e)(2)(i); 40 CFR 52.670 (d), 8/14/06]

5.15.5 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.

[PTC No. 077-00006, 9/20/00; 40 CFR 60.48b(f); 40 CFR 52.670 (d), 8/14/06]

5.16 **40 CFR 60 Subpart Db - § 60.49b Reporting and recordkeeping requirements**

5.16.1 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:

(1) The design heat input capacity of the boiler and identification of the fuels to be combusted in the

boiler.

(2) Does not apply.

(3) The annual capacity factor at which the permittee anticipates operating the boiler based on all fuels fired and based on each individual fuel fired.

(4) Does not apply.

[40 CFR 60.49b(a)]

5.16.2 In accordance with 40 CFR 60 .49b(b), the permittee shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of 40 CFR 60. The requirement is fulfilled.

[40 CFR 60.49b(b)]

5.16.3 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.

[PTC No. 077-00006, 9/20/00; 40 CFR 60.49b(d); 40 CFR 52.670 (d), 8/14/06]

5.16.4 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 NO_2) (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.

[PTC No. 077-00006, 9/20/00; 40 CFR 60.49b(g) et al;]

5.16.5 The permittee shall submit excess emission reports for any excess emissions that occurred during the reporting period.

[40 CFR 60.49b(h)]

5.16.6 The permittee shall submit reports containing the information recorded under 40 CFR 60.49b(g).

[40 CFR 60.49b(i)]

5.16.7 The permittee may submit electronic quarterly reports for NOx 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.

[40 CFR 60.49b(v)]

5.16.8 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(w)]

6. 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 6.1 specifies the emissions point related to the emissions unit.

Table 6.1 EMISSIONS UNIT AND POINT

Source ID	Emissions Unit(s) / Process(es)	Emissions Control Device	Emission Point
1002.0	Babcock and Wilcox boiler	N/A	Boiler stack

Table 6.2 contains only a summary of the requirements that apply to the Babcock and Wilcox boiler. Specific permit requirements are listed below Table 6.2.

Table 6.2 SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
6.1	PM	0.64 lb/hr, 2.79 T/yr	PTC No. 077-00006	6.8 to 6.12
6.2	PM_{10}	0.32 lb/hr, 1.40 T/yr	PTC No. 077-00006	6.8 to 6.12
6.3	SO_2	0.04 lb/hr, 0.17 T/yr	PTC No. 077-00006	6.8 to 6.12
6.4	NO_x	2.88 lb/hr, 12.63 T/yr	PTC No. 077-00006	6.8 to 6.12
6.5	CO	11.7 lb/hr, 51.1 T/yr	PTC No. 077-00006	6.8 to 6.12
6.6	VOC	0.19 lb/hr, 0.84 T/yr	PTC No. 077-00006	6.8 to 6.12
6.9	Fuel usage	559 MMcf/yr	PTC No. 077-00006	6.10, 6.11

Permit Limits / Standard Summary

6.1 The PM emissions from the boiler exhaust stack shall not exceed 0.64 lb/hr and 2.79 T/yr.
[PTC No. 077-00006, 06/16/95]

6.2 The PM_{10} emissions from the boiler exhaust stack shall not exceed 0.32 lb/hr and 1.40 T/yr.
[PTC No. 077-00006, 06/16/95]

6.3 The SO_2 emissions from the boiler exhaust stack shall not exceed 0.04 lb/hr and 0.17 T/yr.
[PTC No. 077-00006, 06/16/95]

6.4 The NO_x emissions from the boiler exhaust stack shall not exceed 2.88 lb/hr and 12.63 T/yr.
[PTC No. 077-00006, 06/16/95; 40 CFR 52.670 (d), 8/14/06]

6.5 The CO emissions from the boiler exhaust stack shall not exceed 11.7 lb/hr and 51.1 T/yr.
[PTC No. 077-00006, 06/16/95]

6.6 The VOC emissions from the boiler exhaust stack shall not exceed 0.19 lb/hr, and 0.84 T/yr.
[PTC No. 077-00006, 06/16/95]

6.7 Reserved

Operating Requirement

6.8 The Babcock and Wilcox boiler shall only use natural gas as fuel.
[PTC No. 077-00006, 06/16/95]

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

[PTC No. 077-00006, 06/16/95]

Monitoring and Recordkeeping Requirements

6.10 The permittee shall record and maintain records of the amounts of natural gas combusted during each calendar month.

[40 CFR 60.48c(g)(2); 40 CFR 60.48c(i)]

6.11 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.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

6.12 The permittee shall calculate the emissions of VOC, SO_2, CO, and NO_x from the boiler on a monthly basis using AP-42 Section 1.4 (7/98) emission factors, or a DEQ-approved alternative.

[IDAPA 58.01.01.322.06, 07, 5/1/94; 40 CFR 52.670 (d), 8/14/06]

7. 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 with ammonia and, in some products, involves reacting sulfuric acid with the ammonia to produce ammonium phosphate or ammonium phosphate sulfate slurry in the reactor. The slurry is then sprayed onto a product recycle stream in the granulator. Depending on the product, phosphoric acid is also added at this time or ammonia is sparged into the recycle bed. Process gases from both the reactor and granulator are combined in a common gas stream before passing through the reactor/granulator Venturi scrubber. A blowdown stream of scrubber liquor is transferred to the reactor, 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 removes the larger dust particles entrained in the off-gases exiting the dryer. The dust collected by the cyclone returns directly to the drag conveyer below the cyclones outlet. Finer dust particles and gaseous pollutants are then removed when they pass through the dryer Venturi scrubber. 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 report directly to the recycle while the oversize first passes through a cage mill where it is crushed. A slip stream off the product stream undergoes a second screening 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 recycle drag. The product collected in the recycle drag returns to the granulator and the process is repeated. 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 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 offgas stream from the fluidized bed cooler passes through the cooler baghouse where the particulates are removed. The dust removed in the baghouse is transported to the recycle drag via a screw conveyor. The cleaned gas stream is ducted to the dryer burner, where the heat value of the cooler gas stream is reclaimed.

Table 7.1 describes the emissions points related to each emissions unit of the Granulation No. 1 process and the devices used to control emissions.

Table 7.1 EMISSIONS UNITS, CONTROL DEVICES, AND POINTS

Emissions Point Identification	Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
400.0	Dryer	Cyclone and dryer scrubber in series	Granulation No. 1 dryer stack
401.0	Granulator	Reactor/granulator scrubber	Granulation No. 1 reactor/granulator stack
403.0	Reactor		
406.0	Cooler	Cooler baghouse	Dryer burner
407.1	Polishing screen	Granulation No. 1 baghouse (also called vent baghouse)	Granulation No. 1 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	Reasonable control of fugitive emissions (enclosure)	Fugitive
420.0	Front-end loader operation		
421.0	Underground conveyor		
422.0	Elevator		
423.0	Crossover belt		
423.1	Screens for crossover belt		
424.0	Bulking loadout		

Table 7.2 contains only a summary of the requirements that apply to the Granulation No. 1 process. Specific permit requirements are listed below Table 7.2.

Table 7.2 SUMMARY OF EMISSIONS LIMITS AND REQUIREMENTS

Permit Conditions	Parameter	Permit Limit /Standard Summary	Applicable Requirements Reference	Operating and Monitoring and Recordkeeping Requirements
7.1	PM	23.8 lb/hr, 104.26 T/yr (all stacks combined)	Tier II Permit No. 077-00006	7.10 to 7.13, 7.19, 7.20, 7.28 to 7.32, and 2.22 to 2.25
		Process weight rate (all stacks combined)	IDAPA 58.01.01.702	7.10 to 7.13, 7.19, 7.20, 7.28 to 7.32, and 2.22 to 2.25
7.2	PM/PM_{10}	10.9 lb/hr, 47.7 T/yr (all stacks combined)	Consent Order (RACT requirements), 4/16/04	7.10 to 7.13, 7.19, 7.20, 7.28 to 7.32, and 2.22 to 2.25
	PM_{10}	19.52 lb/hr, 85.48 T/yr (all stacks combined)	Tier II Permit No. 077-00006	
7.3	Fluorides	7.8 lb/hr, 34.16 T/yr	Tier II Permit No. 077-00006	7.17 to 7.27
7.18		0.060 lb total fluoride/T equivalent P_2O_5 feed (all stacks combined)	40 CFR 63.622(a)	
7.4	NO_x	1.44 lb/hr, 6.3 T/yr (all stacks combined)	Tier II Permit No. 077-00006	7.14, 7.15
7.5	CO	0.37 lb/hr, 1.6 T/yr (all stacks combined)	Tier II Permit No. 077-00006	
7.6	SO_2	0.004 lb/hr, 0.019 T/yr (all stacks combined)	Tier II Permit No. 077-00006	
7.7	PM fugitives	7.03 lb/hr, 30.78 T/yr	Tier II Permit No. 077-00006	7.16
7.8	PM_{10} fugitives	2.54 lb/hr, 11.12 T/yr	Tier II Permit No. 077-00006	
7.9	Fluoride fugitives	0.070 lb/hr, 0.308 T/yr	Tier II Permit No. 077-00006	

Permit Limits / Standard Summary

7.1 The permittee shall comply with the following PM emission limits:

7.1.1 The total PM emissions from the combined Granulation No. 1 process stacks shall not exceed 23.8 lb/hr, and shall not exceed 104.26 T/yr. 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).

[Tier II Permit No. 077-00006, 12/3/99]

7.1.2 No person shall emit PM to the atmosphere from any process or process equipment operating prior to October 1, 1979, PM 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:

a. If PW is less than 17,000 lb/hr,

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

b. 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]

7.2 The permittee shall comply with the following PM/PM_{10} emission limits:

7.2.1 Emissions from the granulation No. 1 plant shall not exceed the emissions limits in Table 7.3. The annual PM/PM_{10} RACT limit (tons per year) shall be set by multiplying the pound per hour RACT limit by 8,760 hours per year and dividing by 2,000 pounds per ton.

Table 7.3 GRANULATION NO.1 PLANT EMISSIONS LIMITS

Source Description	PM/PM_{10}	
	lb/hr	T/yr
Reactor/granulator stack	10.9	47.7
Dryer stack		
Baghouse stack (Granulation No. 1 baghouse, also called vent baghouse)		

[IDAPA 58.01.01.322.07; Consent Order (RACT requirements), 4/16/04; 40 CFR 52.670 (d), 8/14/06]

7.2.2 The PM_{10} emissions from the combined Granulation No. 1 process stacks shall not exceed 19.52 lb/hr, and 85.48 T/yr. 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).

[Tier II Permit No. 077-00006, 12/3/99]

7.3 Total fluoride emissions from the combined Granulation No. 1 process stacks shall not exceed 7.8 lb/hr and 34.16 T/yr. 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).

[Tier II Permit No. 077-00006, 12/3/99]

7.4 The NO_x emissions from the combined Granulation No. 1 process stacks shall not exceed 1.44 lb/hr and 6.3 T/yr.

[Tier II Permit No. 077-00006, 12/3/99]

7.5 The CO emissions from the combined Granulation No. 1 process stacks shall not exceed 0.37 lb/hr and 1.6 T/yr.

[Tier II Permit No. 077-00006, 12/3/99]

7.6 The SO_2 emissions from the combined Granulation No. 1 process stacks shall not exceed 0.004 lb/hr and 0.019 T/yr.

[Tier II Permit No. 077-00006, 12/3/99]

7.7 Fugitive PM emissions from the Granulation No. 1 process shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed 7.03 lb/hr and 30.78 T/yr.

[IDAPA 58.01.01.650-651, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

7.8 Fugitive PM_{10} emissions from the Granulation No. 1 process shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed 2.54 lb/hr and 11.12 T/yr.

[IDAPA 58.01.01.650-651, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

7.9 Fugitive fluoride emissions from the Granulation No.1 process shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed 0.070 lb/hr and 0.308 T/yr.

[IDAPA 58.01.01.650-651, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

Operating Requirements

7.10 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.

[Tier II Permit No. 077-00006, 12/3/99]

7.11 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.

[Tier II Permit No. 077-00006, 12/3/99]

Monitoring, Compliance Tests, and Compliance Provisions

7.12 Reserved

7.13 PM and PM_{10} Compliance Test

7.13.1 The permittee shall conduct a compliance test once per annum to demonstrate compliance with hourly PM and PM_{10} emissions limits in Permit Conditions 7.1 and 7.2.

[IDAPA 58.01.01.322.06, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

7.13.2 The permittee shall record the equivalent P_2O_5 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.

[Tier II Permit No. 077-00006, 12/3/99]

7.13.3 The permittee shall conduct a visible emissions evaluation during each performance test. The visible emissions evaluation shall be conducted in accordance with the procedures contained in IDAPA 58.01.01.625.

[Tier II Permit No. 077-00006, 12/3/99]

7.14 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 SO_2 in Permit Conditions 7.4, 7.5, and 7.6, 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.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

7.15 For the purpose of determining compliance with the short-term (lb/hr) and yearly (tons-per-year) emission limits for NO_x, CO, and SO_2 in Permit Conditions 7.4, 7.5, and 7.6, the permittee shall calculate the monthly and rolling 12-month emission rate using AP-42 Section 1.4 (7/98) emission factors for natural gas combustion, or a DEQ-approved alternative, on a monthly basis.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.01, 3/19/99]

7.16 The permittee shall maintain the documentation that lists the methods to control fugitive emissions to demonstrate compliance with the PM, PM_{10}, and fluoride fugitive emissions limits in Permit Conditions 7.7, 7.8, and 7.9.

[IDAPA 58.01.01.650-651, 5/1/94; IDAPA 58.01.01.322.06, 07, 5/1/94]

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

7.17 Reserved

7.18 **40 CFR 63 Subpart BB - § 63.622 Standards for existing sources**

(a) On and after the date on which the performance test required to be conducted by 40 CFR 63.7 and 40 CFR 63.626 is required to be completed, no owner or operator subject to the provisions of 40 CFR 63, Subpart BB shall cause to be discharged to the atmosphere from any affected source any gases which contain total fluorides in excess of 30 grams/metric ton of equivalent P_2O_5 feed (0.060 lb/T.)

[40 CFR 63.622(a)]

(b) & (c) do not apply.

7.19 **40 CFR 63 Subpart BB - §63.624 Operating Requirements**

On or after the date on which the performance test required to be conducted by 40 CFR 63.7 and 40 CFR 63.626 is required to be completed, the owner/operator using a wet scrubbing emission control system must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to the requirements of 40 CFR 63.625(f)(1) or (2).

[40 CFR 63.624]

7.20 **40 CFR 63 Subpart BB - §63.625 Monitoring Requirements**

(a) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line subject to the provisions of 40 CFR 63, Subpart BB shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ±5% over its operating range.

[40 CFR 63.625(a)]

(b) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line subject to the provisions of 40 CFR 63, Subpart BB shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed using a monitoring system for measuring mass flow rate which meets the requirements of 40 CFR 63.625(a) and then by proceeding according to 40 CFR 63.626(c)(3).

[40 CFR 63.625(b)]

(c) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line using a wet scrubbing emission control system shall install, calibrate, maintain, and operate the following monitoring systems:

(1) A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ±5% over its operating range.

(2) A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block

averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ±5% over its operating range.

[40 CFR 63.625(c)]

(d) & (e) do not apply.

(f) Following the date on which the performance test required in 40 CFR 63.626(c)(4) is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in 40 CFR 63, Subpart BB must establish allowable ranges for operating parameters using the methodology of either paragraph (1) or (2) of this section:

(1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is ±20% of the baseline average value determined as a requirement of §63.626(c)(4) (i.e., Permit Condition 7.21(c)(4)). The Administrator retains the right to reduce the ±20% 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, but in no instance shall the adjustment be reduced to less than 10%. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. When a source using the methodology of this paragraph is retested, the owner or operator shall determine whether new allowable ranges of baseline average values will be based upon the new performance test or (if the new performance test results are within the previously established range) whether there will be no change in the operating parameters derived from previous tests. When a source using the methodology of this paragraph is retested and the performance test results are submitted to the Administrator pursuant to 40 CFR 63.627(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate whether the operating range will be based on the new performance test or the previously established range. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges for the daily averages of the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with 40 CFR 63, Subpart BB. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in 40 CFR 63.626(c)(4). As an alternative, the owner or operator can establish the allowable ranges using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in 40 CFR 63, Subpart BB and established in the manner required in 40 CFR 63.626(c)(4) The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

[40 CFR 63.625(f)]

7.21 **40 CFR 63 Subpart BB - §63.626 Performance tests and compliance provisions**

(a)(1) On or before the applicable compliance date in 40 CFR 63.630 and once per annum thereafter, each owner or operator of a phosphate fertilizers production plant subject to the provisions of 40 CFR 63, Subpart BB shall conduct a performance test to demonstrate compliance with the applicable emission standard for each existing diammonium and/or monoammonium phosphate process line. The owner or operator shall conduct the performance test according to the procedures in 40 CFR 63,Subpart A and 40 CFR 63.626.

[40 CFR 63.626(a)(1)]

(a)(2) does not apply.

(b) In conducting performance tests, each owner or operator of an affected source 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 63.7(f).

[40 CFR 63.626(b)]

(c) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line shall determine compliance with the applicable total fluorides standards in 40 CFR 63.622, as follows.

(1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left(\sum_{i=1}^{N} C_{si} Q_{sdi} \right) \Big/ (PK)$$

Where:

E = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P_2O_5 feed.
C_{si} = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).
Q_{sdi} = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).
N = number of emission points associated with the affected facility.
P = equivalent P_2O_5 feed rate, metric ton/hr (ton/hr).
K = conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B (40 CFR Part 60, Appendix A) shall be used to determine the total fluorides concentration (C_{si}) and volumetric flow rate (Q_{sdi}) of the effluent gas from each of the emission points. If Method 13 B 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 Sections 7.3.3 and 7.3.4 in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least one hour and 0.85 dscm (30 dscf).

(3) The equivalent P_2O_5 feed rate (P) shall be computed using the following equation:

$P = M_p R_p$

Where:

Mp = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).
Rp = P_2O_5 content, decimal fraction.

(i) Does not apply.

(ii) The P_2O_5 content (R_P) of the feed shall be determined using as appropriate the following methods (incorporated by reference - see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, 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.

(4) To comply with 40 CFR 63.625(f) (1) or (2), the owner or operator shall use the monitoring systems in 40 CFR 63.625(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of 40 CFR 63.625(f)(1) or (2) .

[40 CFR 63.626(c)]

(d) Does not apply.

7.22 **40 CFR 63 Subpart BB - §63.627 Notification, recordkeeping, and reporting requirements**

(a) Each owner or operator subject to the requirements of 40 CFR 63, Subpart BB shall comply with the notification requirements in 40 CFR 63.9.

[40 CFR 63.627(a)]

(b) Each owner or operator subject to the requirements of 40 CFR 63, Subpart BB shall comply with the record-keeping requirements in 40 CFR 63.10.

[40 CFR 63.627(b)]

(c) The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 as follows:

(1) Performance test report. As required by 40 CFR 63.10, the owner or operator shall report the results of the initial and annual performance tests as part of the notification of compliance status required in 40 CFR 63.9.

(2) Excess emissions report. As required by 40 CFR 63.10, the owner or operator of an affected source shall submit an excess emissions report for any exceedance of an operating parameter limit. The report shall contain the information specified in 40 CFR 63.10. When no exceedances of an operating parameter have occurred, such information shall be included in

the report. The report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, the owner or operator shall report quarterly until a request to reduce reporting frequency is approved as described in 40 CFR 63.10.

(3) Summary report. If the total duration of control system exceedances for the reporting period is less than 1% of the total operating time for the reporting period, the owner or operator shall submit a summary report containing the information specified in 40 CFR 63.10 rather than the full excess emissions report, unless required by the Administrator. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half.

(4) If the total duration of control system operating parameter exceedances for the reporting period is 1% or greater of the total operating time for the reporting period, the owner or operator shall submit a summary report and the excess emissions report.

[40 CFR 63.627(c)]

7.23 **40 CFR 63 Subpart BB - §63.628 Applicability of general provisions**

The owner or operator shall comply with the requirements of the general provisions in 40 CFR Part 63, Subpart A as shown in Appendix A to 40 CFR Part 63, Subpart BB (i.e., Permit Condition 7.27.)

[40 CFR 63.628]

7.24 **40 CFR 63 Subpart BB - §63.630 Compliance dates**

(a) Each owner or operator of an existing affected source at a phosphate fertilizer production plant shall achieve compliance with the requirements of 40 CFR 63, Subpart BB no later than June 10, 2002. Notwithstanding the requirements of 40 CFR 63.7(a)(2)(iii), each owner or operator of an existing affected source at a phosphate fertilizer production plant shall fulfill the applicable requirements of 40 CFR 63.626 no later than June 10, 2002.

[40 CFR 63.630(a)]

(b) Each owner or operator of a phosphate fertilizers production plant that commences construction or reconstruction of an affected source after December 27, 1996 shall achieve compliance with the requirements of this subpart upon startup of operations or by June 10, 1999, whichever is later.

[40 CFR 63.630(b)]

(c) Does not apply.

7.25 **40 CFR 63 Subpart BB - §63.631 Exemption from New Source Performance Standards**

Any affected source subject to the provisions of 40 CFR 63, Subpart BB 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 CAA and the source must be in compliance with all requirements of 40 CFR 63. For each affected source, this exemption is effective upon the date the owner or operator demonstrates to the Administrator that the requirements of 40 CFR 63.624, 63.625 and 63.626 have been met.

[40 CFR 63.631]

7.26 **40 CFR 63 Subpart BB - §63.632 Implementation and enforcement**

(a) This subpart can be implemented and enforced by the U.S. EPA, or DEQ. U.S. EPA Administrator has delegated authority to DEQ, DEQ, in addition to the U.S. EPA, has the authority to implement and enforce this subpart.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are

retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in 40 CFR 63.620, 63.622 through 63.624, and 63.629 through 63.631.

(2) Approval of major alternatives to test methods under 40 CFR 63.7(e)(2)(ii) and (f), as defined in 40 CFR 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under 40 CFR 63.8(f), as defined in 40 CFR 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under 40 CFR 63.10(f), as defined in 40 CFR 63.90, and as required in this subpart.

[40 CFR 63.632]

7.27 General provision of 40 CFR 63 that apply to 40 CFR 63 Subpart BB

Table 7.4 Appendix A to Subpart BB of Part 63-Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart BB

40 CFR citation	Requirement	Applies to subpart BB	Comment
63.1(a)(1) through (4)	General Applicability	Yes.	
63.1(a)(5)		No	[Reserved].
63.1(a)(6) through (8)		Yes.	
63.1(a)(9)		No	[Reserved].
63.1(a)(10) through (14)		Yes.	
63.1(b)	Initial Applicability Determination	Yes.	
63.1(c)(1)	Applicability After Standard Established	Yes.	
63.1(c)(2)		Yes	Some plants may be area sources.
63.1(c)(3)		No	[Reserved].
63.1(c)(4) and (5)		Yes	
63.1(d)		No	[Reserved].
63.1(e)	Applicability of Permit Program	Yes.	
63.2	Definitions	Yes	Additional definitions in §63.621.
63.3	Units and Abbreviations	Yes.	
63.4(a)(1) through (3)	Prohibited Activities	Yes.	
63.4(a)(4)		No	[Reserved].
63.4(a)(5)		Yes.	
63.4(b) and (c)	Circumvention/Severability	Yes.	
63.5(a)	Construction/Reconstruction Applicability	Yes.	
63.5(b)(1)	Existing, New, Reconstructed Sources Requirements	Yes.	

40 CFR citation	Requirement	Applies to subpart BB	Comment
63.5(b)(2)		No	[Reserved].
63.5(b)(3) through (6)		Yes.	
63.5(c)		No	[Reserved].
63.5(d)	Application for Approval of Construction/Reconstruction	Yes.	
63.5(e)	Approval of Construction/Reconstruction	Yes.	
63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	
63.6(a)	Compliance with Standards and Maintenance Applicability	Yes.	
63.6(b)(1) through (5)	New and Reconstructed Sources Dates	Yes	See also §63.629.
63.6(b)(6)		No	[Reserved].
63.6(b)(7)		Yes.	
63.6(c)(1)	Existing Sources Dates	Yes	§63.629 specifies dates.
63.6(c)(2)		Yes.	
63.6(c)(3) and (4)		No	[Reserved].
63.6(c)(5)		Yes.	
63.6(d)		No	[Reserved].
63.6(e)(1) and (2)	Operation & Maintenance Requirements	Yes	
63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	
63.6(f)	Compliance with Emission Standards	Yes	
63.6(g)	Alternative Standard	Yes.	
63.6(h)	Compliance with Opacity/VE Standards	No	Subpart BB does not include VE/opacity standards.
63.6(i)(1) through (14)	Extension of Compliance	Yes.	
63.6(i)(15)		No	[Reserved].
63.6(i)(16)		Yes.	
63.6(j)	Exemption from Compliance	Yes.	
63.7(a)	Performance Test Requirements Applicability	Yes	§63.629(a) applies rather than §63.7(a)(2)(iii).
63.7(b)	Notification	Yes.	
63.7(c)	Quality Assurance/Test Plan	Yes.	
63.7(d)	Testing Facilities	Yes.	
63.7(e)	Conduct of Tests	Yes	§§63.624 and 63.625 specify additional requirements.
63.7(f)	Alternative Test Method	Yes.	

40 CFR citation	Requirement	Applies to subpart BB	Comment
63.7(g)	Data Analysis	Yes.	
63.7(h)	Waiver of Tests	Yes.	
63.8(a)(1)	Monitoring Requirements Applicability	Yes.	
63.8(a)(2)		No	Subpart BB does not require CMS performance specifications.
63.8(a)(3)		No	[Reserved].
63.8(a)(4)		Yes.	
63.8(b)	Conduct of Monitoring	Yes.	
63.8(c)(1) through (4)	CMS Operation/Maintenance	Yes.	
63.8(c)(5) through (8)		No	Subpart BB does not require COMS/CEMS or CMS performance specifications.
63.8(d)	Quality Control	Yes.	
63.8(e)	CMS Performance Evaluation	No	Subpart BB does not require CMS performance evaluations.
63.8(f)(1) through (5)	Alternative Monitoring Method	Yes.	
63.8(f)(6)	Alternative to RATA Test	No	Subpart BB does not require CEMS.
63.8(g)(1)	Data Reduction	Yes.	
63.8(g)(2)		No	Subpart BB does not require COMS or CEMS.
63.8(g)(3) through (5)		Yes.	
63.9(a)	Notification Requirements Applicability	Yes.	
63.9(b)	Initial Notifications	Yes.	
63.9(c)	Request for Compliance Extension	Yes.	
63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	
63.9(e)	Notification of Performance Test	Yes.	
63.9(f)	Notification of VE/Opacity Test	No	Subpart BB does not include VE/opacity standards.
63.9(g)	Additional CMS Notifications	No	Subpart BB does not require CMS performance evaluation, COMS, or CEMS.
63.9(h)(1) through (3)	Notification of Compliance Status	Yes.	
63.9(h)(4)		No	[Reserved].
63.9(h)(5) and (6)		Yes.	
63.9(i)	Adjustment of Deadlines	Yes.	
63.9(j)	Change in Previous Information	Yes.	
63.10(a)	Recordkeeping/Reporting-Applicability	Yes.	
63.10(b)	General Recordkeeping Requirements	Yes.	
63.10(c)(1)	Additional CMS Recordkeeping	Yes.	

40 CFR citation	Requirement	Applies to subpart BB	Comment
63.10(c)(2) through (4)		No	[Reserved].
63.10(c)(5)		Yes.	
63.10(c)(6)		No	Subpart BB does not require CMS performance specifications.
63.10(c)(7) and (8)		Yes.	
63.10(c)(9)		No	[Reserved].
63.10(c)(10) through (13)		Yes.	
63.10(c)(14)		No	Subpart BB does not require a CMS quality control program.
63.10(c)(15)		Yes.	
63.10(d)(1)	General Reporting Requirements	Yes.	
63.10(d)(2)	Performance Test Results	Yes.	
63.10(d)(3)	Opacity or VE Observations	No	Subpart BB does not include VE/opacity standards.
63.10(d)(4) and (5)	Progress Reports/Startup, Shutdown, and Malfunction Reports	Yes.	
63.10(e)(1) and (2)	Additional CMS Reports	No	Subpart BB does not require CEMS or CMS performance evaluations.
63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes	§63.626(c)(2) includes additional requirements. A CMS performance report is not required.
63.10(e)(4)	COMS Data Reports	No	Subpart BB does not require COMS.
63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
63.11(a)	Control Device Requirements Applicability	Yes.	
63.11(b)	Flares	No	Flares not applicable.
63.12	State Authority and Delegations	Yes	Authority for approval of site-specific test plans for GTSP storage buildings is retained (see §63.628(a)).
63.13	Addresses	Yes.	
63.14	Incorporation by Reference	Yes.	
63.15	Information Availability/Confidentiality	Yes.	

40 CFR 64 - Compliance Assurance Monitoring (CAM) for Compliance with PM/PM_{10} Emissions Limits of Granulation No. 1 Dryer Scrubber Stack and Granulation No. 1 Baghouse Stack (also called vent baghouse).

7.28 Reserved

7.29 **Approving Monitoring Requirements and Compliance Schedule in Accordance with 40 CFR 64.4 and 64.6**

7.29.1 Within two months of, or within 12 months prior to the permit issuance, the permittee shall conduct performance test as specified in Permit Condition 7.13.

[40 CFR 64.3(a)(2), 40 CFR 64.4 (d), 64.4(e), 64.6(b) and 64.6(e)(2)]

7.29.2 As discussed in 40 CFR 64.4(c)(1), performance test(s) generally shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions. Such data may be supplemented, if desired, by engineering assessments and manufacturer's recommendations to justify the indicator ranges (or, if applicable, the procedures for establishing such indicator ranges). Emission testing is not required to be conducted over the entire indicator range or range of potential emissions.

[40 CFR 64.4(c)(1)]

The applicant shall comply with facility-wide Permit Condition 2.10 for performance test.

[40 CFR 64.6(b); IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

7.29.3 Within three months of the permit issuance, the permittee shall verify or establish an indicator range for the pressure drop across the baghouse, the pressure drop across the dryer scrubber, and the flow rate of the scrubber liquid to the dryer scrubber, respectively, and provide these indicators' ranges to DEQ for approval.

[40 CFR 64.6(b)]

7.29.4 Within 180 days of the permit issuance, DEQ will either approve or disapprove the proposed indicators' ranges. The permittee is in violation of 40 CFR 64.4(e) if DEQ disapproved the indicator ranges by then.

[40 CFR 64.4(e)]

7.29.5 After the initial approval as specified in Permit Condition 7.29.4, the permittee may conduct performance test in accordance with Permit Conditions 7.13, which demonstrate compliance with emissions limits specified in Permit Conditions 7.1 and 7.2, to revise indicator(s)' range(s). The permittee shall submit any revised indicator(s)' range(s) to DEQ for approval.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94; 40 CFR 64.6(b)]

7.30 The permittee shall comply with the approved monitoring requirements in Table 7.5 for the granulation No. 1 baghouse (also called vent baghouse)

Table 7.5 MONITORING REQUIREMENTS FOR THE GRANULATION NO. 1 PROCESS BAGHOUSE (ALSO CALLED VENT BAGHOUSE)

	Indicator No.1	Indicator No.2
I. Indicator	Opacity reading from the baghouse stack	Pressure drop across the baghouse
Measurement Approach	Visible emissions from the baghouse exhaust will be monitored daily using a see/no see evaluation procedure.	The pressure drop is monitored with a differential pressure gauge.
II. Indicator Range	An excursion is defined as the presence of visible emissions An excursion shall trigger an inspection, corrective action, and reporting requirements.	An excursion is defined as a pressure drop outside the range developed under Permit Condition 7.29. Excursions trigger an inspection, corrective action and reporting requirements.
III. Performance Criteria		
A. Data Representativeness	Measurements will be made at the emission point of Granulation No.1 baghouse stack.	The monitoring system consists of pressure taps located at the baghouse inlet and outlet.
B. Verification of Operational Status	NA	NA
C. QA/QC Practices and Criteria	The observer will be familiar with the see/no see procedure.	The pressure gauge is calibrated. Pressure taps are checked for plugging.
D. Monitoring Frequency	A visible emissions observation will be performed daily.	The pressure drop is monitored continuously.
Data Collection	The visible emissions	At a minimum, the pressure drop is

	Indicator No.1	Indicator No.2
Procedures	observation is documented by the observer.	manually recorded once per day.
Averaging Period	None	None

[40 CFR 64.3(a)(2), 40 CFR 64.4 (d), 64.4(e), 64.6(b) and 64.6(e)(2)]

7.31 The permittee shall comply with the requirements in 40 CFR 63 Subpart BB for the granulation No. 1 dryer scrubber. The indicator ranges of the pressure drop across the dryer scrubber and the flow rate of the scrubber liquid to the dryer scrubber shall be approved in accordance with 40 CFR 64.6.

[40 CFR 64.3(a)(1), 64.4(f), and 64.6(a)]

7.32 The permittee shall conduct annual inspection of the dryer cyclone and conduct maintenance as needed. The inspection shall be recorded in accordance with Permit Condition 2.11.

[40 CFR 64.3(a)(2)]

8. 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 di-ammonium phosphate (DAP, 18-46-0) granulated products. The Granulation No. 2 process involves reacting phosphoric acid with ammonia to produce ammonium phosphate slurry in the reactor. The slurry is sprayed onto a product recycle stream in the granulator. Depending on the product, phosphoric acid is added at this time, or ammonia is sparged into the recycle bed. 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 from the reactor and granulator systems combined with the air stream from the dryer venture scrubber described below receives a final scrubbing in the Tailgas scrubber. 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 drag conveyer below the cyclone's outlet. Finer particles and gaseous pollutants are removed as they pass through the dryer Venturi scrubber. The cleaned air stream is combined with the combined reactor and granulator off-gas stream before the final scrubbing in the tail gas scrubber.

The product stream is screened into three fractions: oversized, product, and fines. The fines report directly to the recycle while the oversize first passes through a cage mill where it is crushed. A slip stream off the product stream undergoes a second screening 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 recycle drag. The product collected in the recycle drag is then returned to the granulator and the process is repeated. Dust from the screening process passes through the Granulation No. 2 baghouse or dust baghouse where it is separated from the air. The dust removed in the baghouse is transported to the recycle drag conveyor 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 where the particulates are separated from the air. The dust removed in the baghouse is transported to the recycle drag via a screw conveyor. The cleaned air stream is then combined with the air stream of the Granulation No.2 baghouse or dust baghouse mentioned above and discharged to the atmosphere.

Table 8.1 describes the emissions points related to each emissions unit of the Granulation No. 2 process and the devices used to control emissions.

Table 8.1 EMISSIONS UNITS

Emission Point Identification	Emissions Unit(s) / Process(es)	Emissions Control Device		Emissions Point
450.0	Reactor	---		Tailgas scrubber stack
451.0	Granulator			
453.0	Dryer	Cyclone dust collector and Dryer venturi scrubber in series (primary function as process equipment)	Tailgas scrubber	
461.1	Recycle drag conveyor	Granulation No.2 Baghouse/dust baghouse		Granulation No.2 baghouse and cooler baghouse stack
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)		Fugitive
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 8.2 contains only a summary of the requirements that apply to the Granulation No. 2 process. Specific permit requirements are listed below Table 8.2.

Table 8.2 SUMMARY OF EMISSIONS LIMITS AND REQUIREMENTS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Operating and Monitoring and Recordkeeping Requirements
8.1	PM	22.02 lb/hr, 96.47 T/yr (all stacks combined)	Tier II Permit No. 077-00006	8.10 to 8.13, 8.19, 8.20, 8.28 to 8.32, and 2.22 to 2.25
		Process weight rate	IDAPA 58.01.01.702	8.10 to 8.13, 8.19, 8.20, 8.28 to 8.32, and 2.22 to 2.25
8.2	PM_{10}/PM	10.7 lb/hr, 46.9 T/yr	Consent Order (RACT requirements), 4/16/04	8.10 to 8.13, 8.19, 8.20, 8.28 to 8.32, and 2.22 to 2.25
	PM_{10}	18.06 lb/hr, 79.12 T/yr (all stacks combined)	Tier II Permit No. 077-00006	
8.3	Fluorides	6.8 lb/hr, 29.78 T/yr	Tier II Permit No. 077-00006	8.17 to 8.27
8.18		0.06 lb total fluoride/T equivalent P_2O_5 feed (all stacks combined)	40 CFR 63.622(a)	
8.4	NO_x	1.69 lb/hr, 7.4 T/yr (all stacks combined)	Tier II Permit No. 077-00006	8.14, 8.15
8.5	CO	0.41 lb/hr, 1.8 T/yr (all stacks combined)	Tier II Permit No. 077-00006	
8.6	SO_2	0.0016 lb/hr, 0.007 T/yr (all stacks combined)	Tier II Permit No. 077-00006	

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Operating and Monitoring and Recordkeeping Requirements
8.7	PM fugitives	8.79 lb/hr, 38.49 T/yr	Tier II Permit No. 077-00006	8.16
8.8	PM_{10} fugitives	1.06 lb/hr, 4.63 T/yr	Tier II Permit No. 077-00006	
8.9	Fluoride fugitives	0.088 lb/hr, 0.385 T/yr	Tier II Permit No. 077-00006	

Permit Limits / Standard Summary

8.1 The permittee shall comply with the following PM emission limits:

8.1.1 The PM emissions from the combined Granulation No. 2 process stacks shall not exceed 22.02 lb/hr and 96.47 T/yr. 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).

[Tier II Permit No. 077-00006, 12/3/99]

8.1.2 No person shall emit PM to the atmosphere from any process or process equipment operating prior to October 1, 1979, PM 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:

a. If PW is less than 17,000 lb/hr,

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

b. 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 The permittee shall comply with the following PM/PM_{10} emission limits:

8.2.1 Emissions from the granulation No. 2 plant shall not exceed the emissions limits in Table 8.3. The annual PM/PM_{10} RACT limit (tons per year) shall be set by multiplying the pound per hour RACT limit by 8,760 hours per year and dividing by 2,000 pounds per ton.

Table 8.3 GRANULATION NO.2 PLANT EMISSIONS LIMITS

Source Description	PM/PM_{10}	
	lb/hr	T/yr
Tailgas scrubber stack	10.7	46.9
Baghouse stack		

[Consent Order (RACT requirements), 4/16/04; 40 CFR 52.670 (d), 8/14/06]

8.2.2 The PM_{10} emissions from the combined Granulation No. 2 process stacks shall not exceed 18.06 lb/hr and 79.12 T/yr. 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).

[Tier II Permit No. 077-00006, 12/3/99]

8.3 Total fluoride emissions from the combined Granulation No. 2 process stacks shall not exceed 6.8 lb/hr and 29.78 T/yr. 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).

[Tier II Permit No. 077-00006, 12/3/99]

8.4 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.

[Tier II Permit No. 077-00006, 12/3/99]

8.5 The CO emissions from the combined Granulation No. 2 process stacks shall not exceed 0.41 lb/hr, and 1.8 T/yr.

[Tier II Permit No. 077-00006, 12/3/99]

8.6 The SO_2 emissions from the combined Granulation No. 2 process stacks shall not exceed 0.0016 lb/hr and 0.007 T/yr.

[Tier II Permit No. 077-00006, 12/3/99]

8.7 Fugitive PM emissions from the Granulation No. 2 process shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651 and shall not exceed 8.79 lb/hr and 38.49 T/yr.

[IDAPA 58.01.01.650-651, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

8.8 Fugitive PM_{10} emissions from the Granulation No. 2 process shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651 and shall not exceed 1.06 lb/hr and 4.63 T/yr.

[IDAPA 58.01.01.650-651, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

8.9 Fugitive fluoride emissions from the Granulation No. 2 process shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651 and shall not exceed 0.088 lb/hr and 0.385 T/yr.

[IDAPA 58.01.01.650-651, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

Operating Requirements

8.10 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.

[Tier II Permit No. 077-00006, 12/3/99]

8.11 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.

[Tier II Permit No. 077-00006, 12/3/99]

Monitoring, Compliance Tests, and Compliance Provisions

8.12 Reserved

8.13 **PM and PM_{10} Compliance Test**

8.13.1 The permittee shall conduct a compliance test once per annum to demonstrate compliance with hourly PM and PM_{10} emissions limits in Permit Conditions 8.1 and 8.2.

[Tier II Permit No. 077-00006, 12/3/99]

8.13.2 The permittee shall record the equivalent P_2O_5 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.

[Tier II Permit No. 077-00006, 12/3/99]

8.13.3 The permittee shall conduct a visible emissions evaluation during each compliance test. The visible emissions evaluation shall be conducted in accordance with the procedures contained in IDAPA 58.01.01.625.

[Tier II Permit No. 077-00006, 12/3/99]

8.14 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 SO_2 in Permit Conditions 8.4, 8.5, and 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.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

8.15 The permittee shall calculate the monthly and rolling 12-month emission rate of NO_x, CO, and SO_2 using AP-42 Section 1.4 (7/98) emission factors for natural gas combustion, or a DEQ-approved alternative, on a monthly basis.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.01, 3/19/99]

8.16 The permittee shall maintain the documentation that lists the methods to control fugitive emissions to demonstrate compliance with the PM, PM_{10}, and fluoride fugitive emissions limits in Permit Conditions 8.7, 8.8, and 8.9.

[IDAPA 58.01.01.650-651, 5/1/94; IDAPA 58.01.01.322.06, 07, 5/1/94]

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

8.17 Reserved

8.18 **40 CFR 63 Subpart BB - § 63.622 Standards for existing sources**

(a) On and after the date on which the performance test required to be conducted by 40 CFR 63.7 and 40 CFR 63.626 (i.e., Permit Condition 8.21) is required to be completed, no owner or operator subject to the provisions of 40 CFR 63, Subpart BB shall cause to be discharged to the atmosphere from any affected source any gases which contain total fluorides in excess of 30 grams/metric ton of equivalent P_2O_5 feed (0.060 lb/T).

[40 CFR 63.622(a)]

(b) & (c) do not apply.

8.19 **40 CFR 63 Subpart BB - §63.624 Operating Requirements**

On or after the date on which the performance test required to be conducted by 40 CFR 63.7 and 40 CFR 63.626 (i.e., Permit Condition 8.21) is required to be completed, the owner/operator using a wet scrubbing emission control system must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to the requirements of 40 CFR 63.625(f)(1) or (2) (i.e., Permit Condition 8.20 (f)(1) or (2).)

[40 CFR 63.624]

8.20 **40 CFR 63 Subpart BB - §63.625 Monitoring Requirements**

(a) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line subject to the provisions of 40 CFR 63, Subpart BB shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ±5% over its operating range.

[40 CFR 63.625(a)]

(b) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line subject to the provisions of 40 CFR 63, Subpart BB shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed using a monitoring system for measuring mass flow rate which meets the requirements of 40 CFR 63.625(a) and then by proceeding according to 40 CFR 63.626(c)(3) (i.e., Permit Condition 8.21(c)(3).)

[40 CFR 63.625(b)]

(c) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line using a wet scrubbing emission control system shall install, calibrate, maintain, and operate the following monitoring systems:

(1) A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ±5% over its operating range.

(2) A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ±5% over its operating range.

[40 CFR 63.625(c)]

(d) & (e) do not apply.

(f) Following the date on which the performance test required in 40 CFR 63.626(c)(4) (i.e., Permit Condition 8.21(c)(4)) is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in 40 CFR 63, Subpart BB must establish allowable ranges for operating parameters using the methodology of either paragraph(f)(1) or (2) of this section:

(1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is ±20% of the baseline average value determined as a requirement of 40 CFR 63.626(c)(4). The Administrator retains the right to reduce the ±20% 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, but in no instance shall the adjustment be reduced to less than 10%. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. When a source using the methodology of this paragraph is retested, the owner or operator shall determine whether new allowable ranges of baseline average values will be based upon the new performance test or (if the new performance test results are within the previously established range) whether there will be no change in the operating parameters derived from previous tests. When a source using the methodology of this paragraph is retested and the performance test results are submitted to the Administrator pursuant to 40 CFR 63.627(c)(1) (i.e., Permit Condition 8.22(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate whether the operating range will be based on the new performance test or the previously established range. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges for the daily averages of the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with 40 CFR 63, Subpart BB. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in 40 CFR 63.626(c)(4). As an alternative, the owner or operator can establish the allowable ranges using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in 40 CFR 63, Subpart BB and established in the manner required in 40 CFR 63.626(c)(4). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

[40 CFR 63.625(f)]

8.21 **40 CFR 63 Subpart BB - §63.626 Performance tests and compliance provisions**

(a)(1) On or before the applicable compliance date in 40 CFR 63.630 and once per annum thereafter, each owner or operator of a phosphate fertilizers production plant subject to the provisions of 40 CFR 63, Subpart BB shall conduct a performance test to demonstrate compliance with the applicable emission standard for each existing diammonium and/or monoammonium phosphate process line. The owner or operator shall conduct the performance test according to the procedures in 40 CFR 63,Subpart A and 40 CFR 63.626.

[40 CFR 63.626(a)(1)]

(a)(2) Does not apply.

(b) In conducting performance tests, each owner or operator of an affected source 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 63.7(f).

[40 CFR 63.626(b)]

(c) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line shall determine compliance with the applicable total fluorides standards in 40 CFR 63.622 as follows.

(1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left(\sum_{i=1}^{N} C_{si} Q_{sdi} \right) \Big/ (PK)$$

Where:

E = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P_2O_5 feed.
C_{si} = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).
Q_{sdi} = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).
N = number of emission points associated with the affected facility.
P = equivalent P_2O_5 feed rate, metric ton/hr (ton/hr).
K = conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B (40 CFR Part 60, Appendix A) shall be used to determine the total fluorides concentration (C_{si}) and volumetric flow rate (Q_{sdi}) of the effluent gas from each of the emission points. If Method 13 B is used, the fusion of the filtered material described in Section 8.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in Sections 8.3.3 and 8.3.4 in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least one hour and 0.85 dscm (30 dscf).

(3) The equivalent P_2O_5 feed rate (P) shall be computed using the following equation:

$P = M_p R_p$

Where:

M_p = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).
R_p = P_2O_5 content, decimal fraction.

(i) Does not apply.

(ii) The P_2O_5 content (R_P) of the feed shall be determined using as appropriate the following methods (incorporated by reference - see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, 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.

(4) To comply with 40 CFR 63.625(f) (1) or (2), the owner or operator shall use the monitoring systems in 40 CFR 63.625(c) (i.e., Permit Condition 8.20 (c)) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of 40 CFR 63.625(f) (1) or (2).

[40 CFR 63.626(c)]

(d) Does not apply.

8.22 **40 CFR 63 Subpart BB - §63.627 Notification, recordkeeping, and reporting requirements**

(a) Each owner or operator subject to the requirements of 40 CFR 63, Subpart BB shall comply with the notification requirements in 40 CFR 63.9.

[40 CFR 63.627(a)]

(b) Each owner or operator subject to the requirements of 40 CFR 63, Subpart BB shall comply with the record-keeping requirements in 40 CFR 63.10.

[40 CFR 63.627(b)]

(c) The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 as follows:

(1) Performance test report. As required by 40 CFR 63.10, the owner or operator shall report the results of the initial and annual performance tests as part of the notification of compliance status required in 40 CFR 63.9.

(2) Excess emissions report. As required by 40 CFR 63.10, the owner or operator of an affected source shall submit an excess emissions report for any exceedance of an operating parameter limit. The report shall contain the information specified in 40 CFR 63.10. When no exceedances of an operating parameter have occurred, such information shall be included in

the report. The report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, the owner or operator shall report quarterly until a request to reduce reporting frequency is approved as described in 40 CFR 63.10.

(3) Summary report. If the total duration of control system exceedances for the reporting period is less than 1% of the total operating time for the reporting period, the owner or operator shall submit a summary report containing the information specified in 40 CFR 63.10 rather than the full excess emissions report, unless required by the Administrator. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half.

(4) If the total duration of control system operating parameter exceedances for the reporting period is 1% or greater of the total operating time for the reporting period, the owner or operator shall submit a summary report and the excess emissions report.

[40 CFR 63.627(c)]

8.23 **40 CFR 63 Subpart BB - §63.628 Applicability of general provisions**

The owner or operator shall comply with the requirements of the general provisions in 40 CFR Part 63, Subpart A as shown in Appendix A to 40 CFR Part 63, Subpart BB (i.e., Permit Condition 8.27.)

[40 CFR 63.628]

8.24 **40 CFR 63 Subpart BB - §63.630 Compliance dates**

(a) Each owner or operator of an existing affected source at a phosphate fertilizer production plant shall achieve compliance with the requirements of 40 CFR 63, Subpart BB no later than June 10, 2002. Notwithstanding the requirements of 40 CFR 63.7(a)(2)(iii), each owner or operator of an existing affected source at a phosphate fertilizer production plant shall fulfill the applicable requirements of 40 CFR 63.626 no later than June 10, 2002.

[40 CFR 63.630(a)]

(b) Each owner or operator of a phosphate fertilizers production plant that commences construction or reconstruction of an affected source after December 27, 1996 shall achieve compliance with the requirements of this subpart upon startup of operations or by June 10, 1999, whichever is later.

[40 CFR 63.630(b)]

(c) Does not apply.

8.25 **40 CFR 63 Subpart BB - §63.631 Exemption from New Source Performance Standards**

Any affected source subject to the provisions of 40 CFR 63, Subpart BB 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 CAA and the source must be in compliance with all requirements of 40 CFR 63. For each affected source, this exemption is effective upon the date the owner or operator demonstrates to the Administrator that the requirements of 40 CFR 63.624, 63.625 and 63.626 have been met.

[40 CFR 63.631]

8.26 Reserved

8.27 **General provision of 40 CFR 63 that apply to 40 CFR 63 Subpart BB**

Table 8.4 Appendix A to Subpart BB of Part 63-Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart BB

40 CFR citation	Requirement	Applies to subpart BB	Comment
63.1(a)(1) through (4)	General Applicability	Yes.	
63.1(a)(5)		No	[Reserved].

40 CFR citation	Requirement	Applies to subpart BB	Comment
63.1(a)(6) through (8)		Yes.	
63.1(a)(9)		No	[Reserved].
63.1(a)(10) through (14)		Yes.	
63.1(b)	Initial Applicability Determination	Yes.	
63.1(c)(1)	Applicability After Standard Established	Yes.	
63.1(c)(2)		Yes	Some plants may be area sources.
63.1(c)(3)		No	[Reserved].
63.1(c)(4) and (5)		Yes	
63.1(d)		No	[Reserved].
63.1(e)	Applicability of Permit Program	Yes.	
63.2	Definitions	Yes	Additional definitions in §63.621.
63.3	Units and Abbreviations	Yes.	
63.4(a)(1) through (3)	Prohibited Activities	Yes.	
63.4(a)(4)		No	[Reserved].
63.4(a)(5)		Yes.	
63.4(b) and (c)	Circumvention/Severability	Yes.	
63.5(a)	Construction/Reconstruction Applicability	Yes.	
63.5(b)(1)	Existing, New, Reconstructed Sources Requirements	Yes.	
63.5(b)(2)		No	[Reserved].
63.5(b)(3) through (6)		Yes.	
63.5(c)		No	[Reserved].
63.5(d)	Application for Approval of Construction/Reconstruction	Yes.	
63.5(e)	Approval of Construction/Reconstruction	Yes.	
63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	
63.6(a)	Compliance with Standards and Maintenance Applicability	Yes.	
63.6(b)(1) through (5)	New and Reconstructed Sources Dates	Yes	See also §63.629.
63.6(b)(6)		No	[Reserved].
63.6(b)(7)		Yes.	
63.6(c)(1)	Existing Sources Dates	Yes	§63.629 specifies dates.
63.6(c)(2)		Yes.	
63.6(c)(3) and (4)		No	[Reserved].

40 CFR citation	Requirement	Applies to subpart BB	Comment
63.6(c)(5)		Yes.	
63.6(d)		No	[Reserved].
63.6(e)(1) and (2)	Operation & Maintenance Requirements	Yes	
63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	
63.6(f)	Compliance with Emission Standards	Yes	
63.6(g)	Alternative Standard	Yes.	
63.6(h)	Compliance with Opacity/VE Standards	No	Subpart BB does not include VE/opacity standards.
63.6(i)(1) through (14)	Extension of Compliance	Yes.	
63.6(i)(15)		No	[Reserved].
63.6(i)(16)		Yes.	
63.6(j)	Exemption from Compliance	Yes.	
63.7(a)	Performance Test Requirements Applicability	Yes	§63.629(a) applies rather than §63.7(a)(2)(iii).
63.7(b)	Notification	Yes.	
63.7(c)	Quality Assurance/Test Plan	Yes.	
63.7(d)	Testing Facilities	Yes.	
63.7(e)	Conduct of Tests	Yes	§§63.624 and 63.625 specify additional requirements.
63.7(f)	Alternative Test Method	Yes.	
63.7(g)	Data Analysis	Yes.	
63.7(h)	Waiver of Tests	Yes.	
63.8(a)(1)	Monitoring Requirements Applicability	Yes.	
63.8(a)(2)		No	Subpart BB does not require CMS performance specifications.
63.8(a)(3)		No	[Reserved].
63.8(a)(4)		Yes.	
63.8(b)	Conduct of Monitoring	Yes.	
63.8(c)(1) through (4)	CMS Operation/Maintenance	Yes.	
63.8(c)(5) through (8)		No	Subpart BB does not require COMS/CEMS or CMS performance specifications.
63.8(d)	Quality Control	Yes.	
63.8(e)	CMS Performance Evaluation	No	Subpart BB does not require CMS performance evaluations.
63.8(f)(1) through (5)	Alternative Monitoring Method	Yes.	
63.8(f)(6)	Alternative to RATA Test	No	Subpart BB does not require CEMS.
63.8(g)(1)	Data Reduction	Yes.	

40 CFR citation	Requirement	Applies to subpart BB	Comment
63.8(g)(2)		No	Subpart BB does not require COMS or CEMS.
63.8(g)(3) through (5)		Yes.	
63.9(a)	Notification Requirements Applicability	Yes.	
63.9(b)	Initial Notifications	Yes.	
63.9(c)	Request for Compliance Extension	Yes.	
63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	
63.9(e)	Notification of Performance Test	Yes.	
63.9(f)	Notification of VE/Opacity Test	No	Subpart BB does not include VE/opacity standards.
63.9(g)	Additional CMS Notifications	No	Subpart BB does not require CMS performance evaluation, COMS, or CEMS.
63.9(h)(1) through (3)	Notification of Compliance Status	Yes.	
63.9(h)(4)		No	[Reserved].
63.9(h)(5) and (6)		Yes.	
63.9(i)	Adjustment of Deadlines	Yes.	
63.9(j)	Change in Previous Information	Yes.	
63.10(a)	Recordkeeping/Reporting-Applicability	Yes.	
63.10(b)	General Recordkeeping Requirements	Yes.	
63.10(c)(1)	Additional CMS Recordkeeping	Yes.	
63.10(c)(2) through (4)		No	[Reserved].
63.10(c)(5)		Yes.	
63.10(c)(6)		No	Subpart BB does not require CMS performance specifications.
63.10(c)(7) and (8)		Yes.	
63.10(c)(9)		No	[Reserved].
63.10(c)(10) through (13)		Yes.	
63.10(c)(14)		No	Subpart BB does not require a CMS quality control program.
63.10(c)(15)		Yes.	
63.10(d)(1)	General Reporting Requirements	Yes.	
63.10(d)(2)	Performance Test Results	Yes.	
63.10(d)(3)	Opacity or VE Observations	No	Subpart BB does not include VE/opacity standards.
63.10(d)(4) and (5)	Progress Reports/Startup, Shutdown, and Malfunction Reports	Yes.	
63.10(e)(1) and (2)	Additional CMS Reports	No	Subpart BB does not require CEMS or CMS performance evaluations.

40 CFR citation	Requirement	Applies to subpart BB	Comment
63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes	§63.626(c)(2) includes additional requirements. A CMS performance report is not required.
63.10(e)(4)	COMS Data Reports	No	Subpart BB does not require COMS.
63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
63.11(a)	Control Device Requirements Applicability	Yes.	
63.11(b)	Flares	No	Flares not applicable.
63.12	State Authority and Delegations	Yes	Authority for approval of site-specific test plans for GTSP storage buildings is retained (see §63.628(a)).
63.13	Addresses	Yes.	
63.14	Incorporation by Reference	Yes.	
63.15	Information Availability/Confidentiality	Yes.	

40 CFR 64 - Compliance Assurance Monitoring for Compliance with PM/PM_{10} Emissions Limits of Granulation No. 2 Stacks

8.28 Reserved

8.29 **Approving Monitoring Requirements and Compliance Schedule in Accordance with 40 CFR 64.4 and 64.6**

8.29.1 Within two months of, or 12 months prior to, the Tier I permit issuance, the permittee shall conduct performance test as specified in Permit Condition 8.13.

[40 CFR 64.3(a)(2), 40 CFR 64.4 (d), 64.4(e), 64.6(b) and 64.6(e)(2)]

8.29.2 As discussed in 40 CFR 64.4(c)(1), performance test(s) generally shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions. Such data may be supplemented, if desired, by engineering assessments and manufacturer's recommendations to justify the indicator ranges (or, if applicable, the procedures for establishing such indicator ranges). Emission testing is not required to be conducted over the entire indicator range or range of potential emissions.

[40 CFR 64.4(c)(1)]

The applicant shall comply with facility-wide Permit Condition 2.10 for performance test.

[40 CFR 64.6(b); IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

8.29.3 Within three months of the Tier I permit issuance, the permittee shall verify or establish the indicators' ranges for granulation No.2 baghouse and cooler baghouse as specified in Tables 8.5, and provide the indicators' ranges to DEQ for approval.

[40 CFR 64.6(b)]

8.29.4 Within 180 days of the Tier I permit issuance, DEQ will either approve or disapprove the proposed indicators' ranges. The permittee is in violation of 40 CFR 64.4(e) if DEQ disapproved the indicator ranges by then.

[40 CFR 64.4(e)]

8.29.5 After the initial approval as specified in Permit Condition 8.29.4, the permittee may conduct performance test in accordance with this Permit Conditions 8.13, which demonstrate compliance with emissions limits specified in Permit Conditions 8.1 and 8.2, to re-evaluate or revise-establish

indicator(s)' range(s). The permittee shall submit any revised indicator(s)' range(s) to DEQ for approval.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94; 40 CFR 64.6(b)]

8.30 The permittee shall comply with the approved monitoring requirements in Table 8.5 for granulation No.2 baghouse and cooler baghouse

Table 8.5 MONITORING REQUIREMENTS FOR EACH BAGHOUSE USED IN THE GRANULATION NO. 2 PROCESS (I.E., GRANULATION NO.2 BAGHOUSE AND COOLER BAGHOUSE)

	Indicator No.1	**Indicator No.2**
I. Indicator	Opacity reading from the granulation No.2 baghouse and cooler baghouse stack	Pressure drop across the baghouse
Measurement Approach	Visible emissions from the baghouse exhaust will be monitored daily using a see/no see evaluation procedure.	The pressure drop is monitored with a differential pressure gauge.
II. Indicator Range	An excursion is defined as the presence of visible emissions An excursion shall trigger an inspection, corrective action, and reporting requirements.	An excursion is defined as a pressure drop outside the range developed under Permit Condition 8.29. Excursions trigger an inspection, corrective action and reporting requirements.
III. Performance Criteria		
A. Data Representativeness	Measurements will be made at the emission point Granulation No.2 baghouse stack.	The monitoring system consists of pressure taps located at the baghouse inlet and outlet.
B. Verification of Operational Status	NA	NA
C. *QA/QC* Practices and Criteria	The observer will be familiar with the see/no see procedure.	The pressure gauge is calibrated. Pressure taps are checked for plugging.
D. Monitoring Frequency	A visible emissions observation will be performed daily.	The pressure drop is monitored continuously.
Data Collection Procedures	The visible emissions observation is documented by the observer.	At a minimum, the pressure drop is manually recorded once per day.
Averaging Period	None	None

[40 CFR 64.3(a)(2), 40 CFR 64.4(d), 64.4(e), 64.6(b) and 64.6(e)(2)]

8.31 The permittee shall comply with the requirements in 40 CFR 63 Subpart BB for the Tailgas scrubber. Each indicator range shall be approved in accordance with 40 CFR 64.6.

[40 CFR 64.3(a)(1), 64.4(f), and 64.6]

9. 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 normally makes low fluoride, mono-calcium phosphate ($Ca(H_2PO_4)_2.H_2O$) product or di-calcium phosphate ($CaHPO_4.2H_2O$) product. The Granulation No. 3 process is also capable of making triple superphosphate (TSP, 0-45-0). For Monocalcium phosphate product or Dicalcium phosphate product, low fluoride phosphoric acid from the defluorination process is used. For triple superphosphate (0-45-0), 42% acid from the adjacent phosphoric acid plant is used.

The Granulation No. 3 process involves reacting phosphoric acid with ground limestone in the mixer and blunger to produce calcium phosphate slurry. The calcium phosphate slurry is then added to recycled granules to produce larger product granules. The granules are fed to the dryer. The dryer is fired by natural gas with a heat input capacity of 35 MMBtu/hr and a maximum rated material inlet capacity of 195 tons of slurry per hour. The mixer, blunger, dryer, and granulator have a rated production capacity of 31.3 T/hr. The dried granules are screened into three sizes: product, oversize, and fines. A small portion of the product size is sent to storage area for shipping while the remainder is recycled through the system with the fines and crushed oversized material.

East Dry Bulking Station - Granulation No.3 Loadout is an almost completely enclosed loadout station and is used to loadout triple superphosphate and livestock feed supplement into train cars and trucks for transport the products 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.

Emissions from the mixer and blunger are controlled by the Entoleter scrubber, a Centrifield Vortex Model 0906 scrubber. The Centrifield Vortex Scrubber is a high efficiency liquid/gas contactor utilizing Entoleter's patented centripetal Vortex contactor to clean gases before they exhaust to the atmosphere. Emissions from the dryer are controlled by a cyclone followed by the Entoleter scrubber. Emissions from the screening process are controlled by the material handling baghouse.

Low fluoride phosphoric acid used to make low fluoride, mono-calcium phosphate product or di-calcium 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 diatomaceous earth baghouse, and the air stream of the baghouse vents to the atmosphere.

Granulated limestone is dry fed. Limestone bins are controlled by limestone baghouse.

The gases from the Entoleter scrubber, material handling baghouse, and the defluorination scrubber are exhausted through the Granulation No.3 stack.

The Granulation No.3 process is not capable of making diammonium and/or monoammonium phosphate by introducing ammonia into the process.

Table 9.1 describes the emissions points related to each emissions unit of the Granulation No. 3 process and the devices used to control emissions.

Table 9.1 EMISSIONS UNITS, CONTROL DEVICES, AND POINTS

Emission Point Identification	Emissions Unit(s) / Process(es)	Emissions Control Device		Emissions Point
700.0	Mixer	---	Entoleter scrubber	Granulation No. 3 stack
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		Limestone baghouse stacks
	Diatomaceous earth silo	Diatomaceous earth baghouse[1]		Diatomaceous earth baghouse stack/vent
750.0	Conveying	Reasonable control of fugitive emissions		Fugitive
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			

[1] 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 9.2 contains only a summary of the requirements that apply to the Granulation No. 3 Process. Specific permit requirements are listed below Table 9.2.

Table 9.2 SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Affected Emission Unit/Point	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Operating and Monitoring and Recordkeeping Requirements
9.1.1	Granulation No. 3 stack	PM	7.0 lb/hr, 30.7 T/yr	PTC No. 077-00006, 12/12/01	9.11, 9.12, 914, 9.15, 9.17, 9.22, 9.25, and 9.26
9.1.2	Diatomaceous earth silo baghouse stack		Process weight rate	IDAPA 58.01.01.701	9.12, 9.22.6
	Limestone bins baghouse stack				9.13
	East dry-bulking station				9.11.3, 9.22.5
	Granulation No. 3 stack				9.11, 9.12, 914, 9.15, 9.17, 9.22, 9.25, 9.26
9.2.1	Granulation No. 3 stack	PM_{10}	5.7 lb/hr, 25.0 T/yr	PTC No. 077-00006, 12/12/01	9.11, 9.12, 914, 9.15, 9.17, 9.22, 9.25, 9.26
9.2.2	Diatomaceous earth baghouse stack		0.28 lb/hr, 1.2 T/yr	PTC No. 077-00006, 11/12/99	9.11.2, 9.12
9.3	Granulation No. 3 stack	Total fluorides	1.28 lb/hr, 5.63 T/yr	PTC No. 077-00006, 12/12/01	9.11.1, 9.11.2, 9.12, 9.15, 9.17, 9.22.1 to 9.22.3, 9.22.6, 9.25, 9.26
9.4	Granulation No. 3 stack	NO_x	3.4 lb/hr, 14.9 T/yr	PTC No. 077-00006, 12/12/01	9.14, 9.18, 9.22.4
9.5		SO_2	0.02 lb/hr, 0.09 T/yr		
9.6		CO	2.9 lb/hr, 12.7 T/yr		
9.7		VOC	0.2 lb/hr, 0.9 T/yr		
9.8	All of Granulation No. 3, excluding east dry-bulking station	PM fugitives	0.7 lb/hr, 3.0 T/yr	PTC No. 077-00006, 12/12/01	9.19, 9.21
9.9	All of Granulation No. 3, excluding east dry-bulking station	PM_{10} fugitives	0.1 lb/hr, 0.5 T/yr	PTC No. 077-00006, 12/12/01	
9.10	All of Granulation No. 3, excluding east dry-bulking station	Fluoride fugitives	0.01 lb/hr, 0.02 T/yr	PTC No. 077-00006, 12/12/01	

Permit Limits / Standard Summary

9.1 Particulate Matter Emissions

9.1.1 The PM emissions from the Granulation No. 3 stack shall not exceed:

- 7.0 lb/hr, as determined by U.S. EPA Reference Method 5, or a Department-approved alternative emissions testing method

- 30.7 T/yr. as 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. 077-00006, 12/12/01]

9.1.2 No person shall emit PM to the atmosphere from any process or process equipment commencing operation on or after October 1, 1979, 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:

a. If PW is less than 9,250 lb/hr,

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

b. 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]

9.2 **PM_{10} Emissions**

9.2.1 The PM_{10} emissions from the Granulation No. 3 stack shall not exceed 5.7 lb/hr and 25.0 T/yr. 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. 077-00006, 12/12/01; 40 CFR 52.670 (d), 8/14/06]

9.2.2 The PM_{10} emissions from the diatomaceous earth baghouse shall not exceed:

- 0.28 lb/hr, as determined by a pollutant-specific U.S. EPA reference method, DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in the PTC permit analysis

- 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. 077-00006, 11/12/99]

9.3 Total fluoride emissions from the Granulation No. 3 stack shall not exceed:

- 1.28 lb/hr, as determined by U.S. EPA Reference Method 13A or 13B, or a Department-approved alternative emissions testing method

- 5.63 T/yr. as 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. 077-00006, 12/12/01]

9.4 The NO_x emissions from the Granulation No. 3 stack shall not exceed:

- 3.4 lb/hr, as determined by DEQ's emission estimation methods used in Granulation No. 3 upgrade permit application analysis (i.e., using emissions factors in AP-42 Section 1.4 (7/98.)) These pollutants are the products of natural gas combustion

- 14.9 T/yr, as 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. 077-00006, 12/12/01]

9.5 The SO_2 emissions from the Granulation No. 3 stack shall not exceed:

- 0.02 lb/hr, as determined by DEQ's emission estimation methods used in Granulation No. 3 upgrade permit application analysis (i.e., using emissions factors in AP-42 Section 1.4 (7/98.)) These pollutants are the products of natural gas combustion

- 0.09 T/yr, as 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. 077-00006, 12/12/01]

9.6 The CO emissions from the Granulation No. 3 stack shall not exceed:

- 2.9 lb/hr, as determined by DEQ's emission estimation methods used in Granulation No. 3 upgrade permit application analysis (i.e., using emissions factors in AP-42 Section 1.4 (7/98.)) These pollutants are the products of natural gas combustion

- 12.7 T/yr, as 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. 077-00006, 12/12/01]

9.7 The VOC emissions from the Granulation No. 3 stack shall not exceed:

- 0.2 lb/hr, as determined by DEQ's emission estimation methods used in Granulation No. 3 upgrade permit application analysis (i.e., using emissions factors in AP-42 Section 1.4 (7/98.)) These pollutants are the products of natural gas combustion

- 0.9 T/yr, as 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. 077-00006, 12/12/01]

9.8 Fugitive PM emissions from the Granulation No. 3 plant and associated handling, excluding the east dry-bulking station, shall not exceed:

- 0.7 lb/hr
- 3.0 T/yr

[PTC No. 077-00006, 12/12/01]

9.9 Fugitive PM_{10} emissions from the Granulation No. 3 plant and associated handling, excluding the east dry-bulking station, shall not exceed:

- 0.1 lb/hr
- 0.5 T/yr

[PTC No. 077-00006, 12/12/01]

9.10 Fugitive fluoride emissions from the Granulation No. 3 plant and associated handling, excluding the east dry-bulking station, shall not exceed:

- 0.01 lb/hr
- 0.02 T/yr

[PTC No. 077-00006, 12/12/01]

Operating Requirements

9.11 **Operating Limit and Throughput Limit**

9.11.1 The maximum allowable operating rate to Granulation No.3 process, measured in tons of P_2O_5 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. 077-00006, 12/12/01]

9.11.2 The maximum monthly throughput of P_2O_5 to the defluorination process shall not exceed 6,250 T/month. The maximum annual throughput of P_2O_5 to the process shall not exceed 75,000 T/yr.

[PTC No. 077-00006, 11/12/99]

9.11.3 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]

9.12 The permittee shall develop the following O&M manual(s):

- An O&M manual for the material handling baghouse and Entoleter wet scrubber system of Granulation No.3 process
- An O&M manual for Defluorination scrubber and Diatomaceous earth baghouse of defluorination process

The O&M manual(s) that describe the procedures that will be followed to comply with General Provision B of PTC No. 077-00006 issued on December 12, 2001 for Granulation No. 3 process update and issued on November 12, 1999 for the defluorination process.

General Provision B of PTC No. 077-00006 is in 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, 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.

This manual shall remain on site at all times and shall be made available to DEQ representatives upon request.

[PTC No. 077-00006, 12/12/01; PTC No. 077-00006, 11/12/99]

The respective pressure drop across the material handling baghouse for Granulation No.3 process and Diatomaceous earth baghouse for 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.

[PTC No. 077-00006, 12/12/01, PTC No. 077-00006, 11/12/99]

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.

[IDAPA 58.01.01.322.01, 9/19/99]

9.13 Limestone bins shall be controlled by limestone baghouse.

[IDAPA 58.01.01.322.01, 3/19/99]

9.14 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. 077-00006, 12/12/01]

9.15 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. 077-00006, 12/12/01]

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

[PTC No. 077-00006, 12/12/01]

Performance Tests and Compliance Procedures

9.17 Performance Test

The permittee shall conduct fluoride performance testing on the Granulation No.3 plant annually.

[IDAPA 58.01.01.322.06, 5/1/94]

For each fluoride performance test, all process areas which emit fluoride emissions out the Granulation No.3 stack shall be in operation.

[PTC No. 077-00006, 11/12/99]

The compliance tests shall be performed in accordance with Permit Condition 2.10, and the following requirements.

[IDAPA 58.01.01.322.06; 40 CFR 52.670 (d), 8/14/06]

9.17.1 Visible emissions shall be observed during each compliance test run using the methods specified in IDAPA 58.01.01.625.

[PTC No. 077-00006, 12/12/01]

9.17.2 The pressure drop across the material handling baghouse for Granulation No.3 process shall be monitored and recorded during each compliance test.

[PTC No. 077-00006, 12/12/01]

9.17.3 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.

[PTC No. 077-00006, 11/12/99]

- 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

[PTC No. 077-00006, 12/12/01; PTC No.077-00006, 11/12/99; 40 CFR 64.4 (d), 64.4(e), 64.6(b), and 64.6(e)(2)]

9.17.4 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. 077-00006, 12/12/01]

9.17.5 The process data specified in the approved test protocol shall be monitored and recorded during the test period.

[PTC No. 077-00006, 12/12/01]

9.17.6 For emissions limits of PM and PM_{10}, if the measurement during the performance test required in Permit Condition 9.26.1 is less than or equal to 75% of the respective hourly emission standard, no further testing for that emissions standard shall be required during the term of the permit. If the measurement during the performance test is greater than 75%, but less than or equal to 90% of the hourly respective emission standard, a second test for that emissions standard shall be required in the third year of the permit term. If measurement during the performance test is greater than 90% of the

respective hourly emission standard, the permittee shall conduct a compliance test for that emissions standard annually.

[IDAPA 58.01.01.322.06, 5/1/94]

9.18 To demonstrate compliance with annual NO_x, CO, SO_2, 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. The permittee shall calculate the monthly and rolling 12-month emission rate using AP-42 Section 1.4 (7/98) emission factors for natural gas combustion, or a DEQ-approved alternative, on a monthly basis.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.01, 3/19/99]

9.19 Compliance with the fugitive PM, PM_{10}, and fluoride emission shall be determined by the following:

9.19.1 Multiplying the hourly production rate, in tons per hour, by the emission factors of 0.027 lb/T for PM, 0.004 lb/T for PM_{10}, and 0.00022 lb/T for fluoride per the facility's Granulation No. 3 upgrade permit application analysis.

[PTC No. 077-00006, 12/12/01]

9.19.2 Multiplying the annual production rate, in tons per year, by the emission factors of 0.027 lb/T for PM, 0.004 lb/T for PM_{10}, and 0.00022 lb/T for fluoride per the facility's Granulation No. 3 upgrade permit application analysis.

[PTC No. 077-00006, 12/12/01]

6.20 Reserved

9.21 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. 077-00006, 12/12/01]

9.22 The permittee shall monitor and record the following information:

9.22.1 The feed rate of P_2O_5 equivalent to the Granulation No. 3 plant, in tons per hour, and tons per rolling 12-month period on a monthly basis.

[PTC No. 077-00006, 12/12/01]

9.22.2 The throughput of P_2O_5 to the defluorination process for that month and for the previous rolling 12-month period on a monthly basis.

[PTC No. 077-00006, 11/12/99]

9.22.3 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.

[PTC No. 077-00006, 12/12/01]

9.22.4 The rolling 24-hour average heat input of natural gas to the dryer of Granulation No.3 Process in MMBtu per hour.

[PTC No. 077-00006, 12/12/01]

9.22.5 The throughput of triple superphosphate and livestock feed through the east dry-bulking station on both a daily and annual basis to determine compliance with Permit Condition 9.11.3. The permittee shall record the operating hours on a daily basis. The permittee shall calculate the daily, average hourly emission rate to demonstrate compliance with Permit Condition 9.1.2. All records shall be maintained on site for five years and shall be made available to DEQ representatives upon request.

[PTC No. 077-00006, 9/13/95; IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]

9.22.6 For defluorination process, when in operation, record the following information once on a daily basis:

- The pressure drop across the diatomaceous earth baghouse
- The pressure drop across the defluorination scrubber

- The liquid flowrate of the defluorination scrubber

[PTC No. 077-00006, 11/12/99]

Reporting Requirements

9.23 Reserved

9.24 Reserved

40 CFR 64 - Compliance Assurance Monitoring for compliance with emissions limits of Granulation No. 3 Stack for PM/PM_{10} and total fluoride

9.25 Reserved

9.26 **Approving Monitoring Requirements and Compliance Schedule in Accordance with 40 CFR 64.4 and 64.6**

9.26.1 Within two months of, or 12 months prior to the permit issuance, the permittee shall conduct performance test to demonstrate compliance with PM, PM_{10}, and total fluoride emissions from Granulation No.3 stack and to develop or verify the parameters operating ranges for Granulation No. 3 Entoleter scrubber, defluorination scrubber of defluorination process, and Granulation No. 3 material handling baghouse. The parameters operating ranges shall use the units specified in Tables 9.3, 9.4, and 9.5.

[40 CFR 64.4 (d), 64.4(e), 64.6(b) and 64.6(e)(2)]

9.26.2 As discussed in 40 CFR 64.4(c)(1), performance test(s) generally shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions. Such data may be supplemented, if desired, by engineering assessments and manufacturer's recommendations to justify the indicator ranges (or, if applicable, the procedures for establishing such indicator ranges). Emission testing is not required to be conducted over the entire indicator range or range of potential emissions.

[40 CFR 64.4(c)(1)]

9.26.3 The permittee shall record the operating data of Granulation No.3 process, defluorination process, and Granulation No.3 material handling process specified in Permit Conditions 9.17.1 through 9.17.5 when conducting performance testing.

[40 CFR 64.3(a)(2), 64.4(e), 64.6(b), and 64.6(e)(2)]

9.26.4 Within three months of the permit issuance, the permittee shall verify or establish the indicators' ranges specified in Tables 9.3, 9.4, and 9.5 and provide the detector location and minimum acceptable accuracy for each flow meter and pressure gauge listed in Tables 9.3 and 9.5. The permittee shall submit the required information in this permit condition for DEQ's approval.

[40 CFR 64.4(e)]

9.26.5 By 180 days of the permit issuance, DEQ will either approve or disapprove the proposed indicators' ranges. The permittee is in violation of 40 CFR 64.4(e) if DEQ disapproved the indicators' ranges by then.

[40 CFR 64.4(e)]

9.26.6 After the initial approval of the indicators' ranges, the permittee may conduct performance test in accordance with this Permit Conditions 9.26.2 and 9.26.3, which demonstrate compliance with emissions limits specified in Permit Conditions 9.1.1, 9.2.1, and 9.3, to re-evaluate or revise the establish the indicator(s)' range(s). The permittee shall submit any revised indicator range to DEQ for approval.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94; 40 CFR 64.6(b)&(c)]

9.26.7 The permittee shall comply with the approved monitoring requirements in Table 9.3 for Granulation No. 3 Entoleter scrubber.

Table 9.3 MONITORING REQUIREMENTS FOR THE GRANULATION NO. 3 ENTOLETER SCRUBBER

	Indicator No.1	Indicator No.2	Indicator No.3	Indicator No.4
I. Indicator	Pressure drop across the wet scrubber	Liquid flow rate through the wet scrubber	Fresh water flow to the scrubber	Scrubber duct spray water flow
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 flow rate is monitored with a flow meter.	The liquid flow rate is monitored with a flow meter.
II. Indicator Range	An excursion is defined as a pressure drop less than 5.0 inches of water and greater than 25.0 inches of water. An excursion shall trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as a liquid flow rate less than 600 gpm or above 800 gpm. An excursion shall trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as fresh water flow less than 10 gallons per minute while producing 21 P and 18.5 P and less than 32 gpm while producing triple superphosphate. An excursion shall trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as a duct spray water flow rate less than 250 gpm. An excursion shall trigger an inspection, corrective action, and reporting requirement.
III. Performance Criteria				
A. 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.
B. Verification of Operational Status	NA	NA	NA	NA
C. QA/QC Practices and Criteria	The differential pressure gauge is calibrated annually	The flow meter is calibrated annually	The flow sensor is calibrated annually.	The flow sensor is calibrated annually
D. Monitoring Frequency	The differential pressure is measured continuously.	The scrubber liquid flow is measured continuously.	The fresh water flow is monitored continuously.	The scrubber duct spray water flow is monitored continuously.
Data Collection Procedures	The differential pressure is manually recorded once per day on the scrubber operating log.	The liquid flow rate is manually recorded every four hours on the scrubber operating log.	The fresh water flow is manually recorded every four hours.	The scrubber duct spray water flow is manually recorded every four hours.
Averaging Period	NA	24-hour average	24-hour average	24-hour average

[40 CFR 64.3(a)(2), 40 CFR 64.4 (d), 64.4(e), 64.6(b) and 64.6(e)(2)]

9.26.8 The permittee shall comply with the approved monitoring requirements in Table 9.4 for the Granulation No. 3 plant baghouse (material handling)

Table 9.4 MONITORING REQUIREMENTS FOR THE GRANULATION NO. 3 BAGHOUSE (MATERIAL HANDLING)

	Indicator No.1	Indicator No.2
I. Indicator	Opacity reading from the stack	Pressure drop across the baghouse
Measurement Approach	Visible emissions from the baghouse exhaust will be monitored daily using a see/no see evaluation procedure.	The pressure drop is monitored with a differential pressure gauge.

	Indicator No.1	Indicator No.2
II. Indicator Range	An excursion is defined as the presence of visible emissions An excursion shall trigger an inspection, corrective action, and reporting requirements.	An excursion is defined as a pressure drop less than 1.0 inches of water or greater than 12.0 inches of water. Excursions trigger an inspection, corrective action and reporting requirements.
III. Performance Criteria		
A. Data Representativeness	Measurements will be made at the emission point Granulation No.3 stack.	The monitoring system consists of pressure taps located at the baghouse inlet and outlet.
B. Verification of Operational Status	NA	NA
C. *QA/QC* Practices and Criteria	The observer will be familiar with the see/no see procedure.	The pressure gauge is calibrated, and pressure taps are checked for plugging annually.
D. Monitoring Frequency	A visible emissions observation will be performed daily.	The pressure drop is monitored continuously.
Data Collection Procedures	The visible emissions observation is documented by the observer.	At a minimum, the pressure drop is manually recorded once per day.
Averaging Period	None	None

[40 CFR 64.3(a)(2), 40 CFR 64.4 (d), 64.4(e), 64.6(b) and 64.6(e)(2)]

9.26.9 The permittee shall comply with the approved monitoring requirements in Table 9.5 for Granulation No. 3 defluorination scrubber.

Table 9.5 MONITORING REQUIREMENTS FOR THE GRANULATION NO. 3 DEFLUORINATION SCRUBBER

	Indicator No.1	Indicator No.2
I. Indicator	Pressure drop across the wet scrubber	Liquid flow rate through the wet scrubber
Measurement Approach	The pressure drop is monitored with a differential pressure gauge.	The liquid flow rate is monitored with a flow meter.
II. Indicator Range	The baseline pressure differential will need to be established. It shall be determined by the measurements taken concurrent with the emissions tests required in Permit Condition 9.26 and/or historical plant records. An excursion is defined as that a differential pressure across the wet scrubber is beyond the range developed in accordance with Permit Condition 9.26. An excursion shall trigger an inspection, corrective action, and reporting requirements.	The baseline liquid flow rate will need to be established. It shall be determined by the measurements taken concurrent with the emissions tests required in Permit Condition 9.26 and/or historical plant records. An excursion is defined as that a liquid flow rate through the wet scrubber is beyond the range developed in accordance with Permit Condition 9.26. An excursion shall trigger an inspection, corrective action, and reporting requirements.
III. Performance Criteria		
Data Representativeness	The monitoring system consists of a differential pressure gauge which measures the pressure across the scrubber.	A liquid flow meter is used to monitor the liquid flow rate.
B. Verification of Operational Status	NA	NA
C. QA/QC Practices and Criteria	The differential pressure gauge is calibrated annually.	The flow sensor is calibrated annually.
D. Monitoring Frequency	The differential pressure is measured continuously.	The scrubber liquid flow is measured continuously.
Data Collection Procedures	At a minimum, the differential pressure will be manually recorded once per day on the	At a minimum, the differential pressure will be manually recorded once per day on the

	Indicator No.1	Indicator No.2
	scrubber operating log.	scrubber operating log.
Averaging Period	NA	NA

[40 CFR 64.3(a)(2), 40 CFR 64.4(d), 64.4(e), 64.6(b) and 64.6(e)(2)]

10. 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 gypsum from the phosphoric acid plant is combined with process water and flows to the gypsum thickener. Dewatered gypsum slurry is pumped to the gypsum stack (pile). The gypsum stack consists of three primary ponds/cells separated by dikes and levees. Gypsum slurry is collected in one cell while the other cells are allowed to dry. Backhoes move the gypsum up around the edges of the dry cell(s) and bulldozers spread and compact the material to increase 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 to be used as process water.

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

Table 10.1 specifies the emissions points related to the gypsum stack.

Table 10.1 EMISSIONS UNIT AND POINTS

Emissions Unit	Source ID	Control Device	Emissions Point
Gypsum stack pond	1701	Reasonable control of fugitive emissions	Fugitive
Dike building activities	1712		
Wind-blown dust	1713		

Table 10.2 contains only a summary of the requirements that apply to the gypsum stack. Specific permit requirements are listed below Table 10.2.

Table 10.2 SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Operating and Monitoring and Recordkeeping Requirements
10.1	Total fluorides	17.50 lb/hr, 76.65 T/yr	Tier II Permit No. 077-00006	10.9
10.2	PM_{10}	4.30 lb/hr, 18.84 T/yr	Tier II Permit No. 077-00006	
10.3	Phosphogypsum	Phosphogypsum removal from stacks	40 CFR 61, Subpart R	10.5 to 10.8, 10.10, 10.11, 10.12

Permit Limits / Standard Summary

10.1 Fluoride emissions from the gypsum stack shall not exceed 17.5 lb/hr and 76.65 T/yr.

[Tier II Permit No. 077-00006, 12/3/99]

10.2 The PM_{10} emissions from the gypsum stack shall not exceed 4.30 lb/hr and 18.84 T/yr.

[Tier II Permit No. 077-00006, 12/3/99]

10.3 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]

Operating Requirements

10.4 Reserved.

10.5 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 Permit Condition 10.8.

(b) The average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as determined pursuant to Permit Condition 10.8, 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 Permit Condition 10.11(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 Permit Condition 10.11(b).

(e) Use of phosphogypsum for indoor research and development in a laboratory must comply with Permit Condition 10.6.

[40 CFR 61.204]

10.6 (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 Permit Condition 10.11. 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.

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 Permit Condition 10.11.

(1) No facility shall purchase or possess more than 3182 kg (7,000 pounds) 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 pounds), provided that no single room in which research and development activities are conducted shall contain more than 3182 kg (7,000 pounds).

(2) 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.

(3) For each indoor research and development activity in which phosphogypsum is used, the facility shall maintain records which conform to the requirements of Permit Condition 10.12(c).

(4) 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 Permit Condition 10.5.

(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 40 CFR 61, Subpart R or any other quality control or quality assurance analyses associated with wet acid phosphorus production.

[40 CFR 61.205]

10.7 (a) Phosphogypsum may not be lawfully removed from a stack and distributed or used for any purpose not expressly specified in Permit Condition 10.5 or 10.6 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 lease 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 in Permit Condition 10.8.

(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 in Permit Condition 10.11.

(3) The end-user of the phosphogypsum shall maintain records which conform to the requirements of 40 CFR 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 record-keeping requirements established by Permit Condition 10.12(c).

[40 CFR 61.206]

10.8 Before removing phosphogypsum from a stack for distribution in commerce pursuant to Permit Conditions 10.5 or 10.7, 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. Measurements shall be conducted in accordance with 40 CFR 61.207(a)-(c).

[40 CFR 61.207]

Monitoring and Recordkeeping Requirements

10.9 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 10.1 and PM_{10} emissions limits in Permit Condition 10.2.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]

10.10 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.

[IDAPA 58.01.01.322.01, 3/19/99; IDAPA 58.01.01.322.07, 5/1/94]

10.11 (a) (1) The owner or operator of a stack from which phosphogypsum will be removed and distributed in commerce pursuant to Permit Conditions 10.5, 10.6, or 10.7 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) 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 40 CFR 61.207; and

(vii) The signature of the person who prepared the certification.

(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

(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]

10.12 (a) Does not apply.

(b) Each owner or operator of a phosphogypsum stack must maintain records documenting the procedure used to determine average radium-226 concentration pursuant to 40 CFR 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 Permit Condition 10.6 or 10.7 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]

11. EMISSIONS UNIT GROUP 9: 10-ACRE DECANT POND

Summary Description

The following is a narrative description of the 10-acre decant pond regulated in this Tier I operating permit. This description is for informational purposes only.

Gypsum stack decant return water has been routed directly to the gypsum thickener. Occasionally the gypsum thickener system, which contains decant water, will overflow during upset operating conditions. The 10-acre decant pond can used to hold the overflow from the gypsum thickener to avoid the overflow reporting to the east overflow pond, which currently returns to the phosphoric acid plant cooling towers.

The 10-acre decant pond is located north of the existing lower gypsum compartment, as part of the phosphogypsum stack lining project. The phosphogypsum stack lining project is to contain the by-product gypsum, associated stack system process waters, and any runoff from the active gypsum storage area within the lined limits of the stack vertical expansion, thereby minimizing future ground water impacts.

Table 12.1 describes the emissions point and the control devices used in controlling emissions.

Table 11.1 EMISSIONS UNITS AND EMISSIONS CONTROL DEVICES

Emissions Unit / Process	Emissions Control Device
10- acre Decant Pond	None

Operating Requirements

11.1 The 10-acre decant pond shall not exceed 10 acres in surface area.

[PTC No. P-2009.0053, 11/5/09]

Recordkeeping Requirements

11.2 The permittee shall maintain documentation of the surface area of the 10-acre decant pond to demonstrate compliance with Permit Condition 11.1.

[PTC No. P-2009.0053, 11/5/09]

12. EMISSIONS UNIT GROUP 10: 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%), water, and recycled acid from the belt filters. This reaction produces phosphoric acid and phosphogypsum (calcium sulfate, $CaSO_4$). 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 and the resulting gypsum slurry is sent to the gypsum thickener, 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 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.

- Vacuum belt filter – separates the slurry of phosphoric acid and phosphogypsum, allowing the gypsum to be delivered to the thickener 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.

- 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 emissions point and the control devices used in controlling emissions. Emissions from the phosphoric acid reactor are contained inside the phosphoric acid plant No. 400 building, vented to a Davy-McKee Scrubber, and then vented through one stack.

Table 12.1 EMISSIONS UNITS, CONTROL DEVICES, AND POINT

Source ID	Emissions Unit(s)/Process(es)	Emissions Control Device	Emissions Point
212.0	Phosphoric acid reactor (also called digester)	Digester scrubber	Belt filter scrubber stack
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	
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.

Table 12.2 SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Operating, Monitoring and Recordkeeping Requirements
12.1	Total fluoride	1.3 lb/hr, 4.71 T/yr	Tier II Permit No. 077-00006	12.6, 12.9 through 12.25
12.10		0.020 lb/T of equivalent P_2O_5 feed	40 CFR 63.602(a); Tier II Permit No. 077-00006	
12.2	PM	3.38 lb/hr, 14.80 T/yr	Tier II Permit No. 077-00006	12.6, 12.7, 12.12
		Process weight rate	IDAPA 58.01.01.701	
12.3	PM_{10}	2.77 lb/hr, 12.13 T/yr	Tier II Permit No. 077-00006	12.6, 12.7, 12.12
12.4	Total reduced sulfur	8.61 lb/hr, 37.7 T/yr	Tier II Permit No. 077-00006	12.8, 12.12
12.5	Fugitive PM_{10}	0.01 lb/hr, 0.03 T/yr	Tier II Permit No. 077-00006	12.5

Permit Limits / Standard Summary

12.1 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.

[Tier II Permit No. 077-00006, 12/3/99]

12.2 The PM emissions from the phosphoric acid plant No. 400 stack 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. The ton-per-year rate 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).

[Tier II Permit No. 077-00006, 12/3/99; IDAPA 58.01.01.701, 4/5/00]

12.3 The PM_{10} emissions from the phosphoric acid plant No. 400 stack shall not exceed 2.77 lb/hr and 12.13 T/yr. The ton-per-year rate 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).

[Tier II Permit No. 077-00006, 12/3/99; 40 CFR 52.670 (d), 8/14/06]

12.4 Total reduced sulfur emissions from the phosphoric acid plant No. 400 stack shall not exceed 8.61 lb/hr, and 37.7 T/yr. The ton-per-year emissions rate 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).

[Tier II Permit No. 077-00006, 12/3/99]

12.5 Uncaptured fugitive PM_{10} emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651. In addition, they shall not exceed 0.01 lb/hr and 0.03 T/yr, as determined in *Air Quality Improvement Plan for Power and Bannock Counties dated May 1993*.

[Tier II Permit No. 077-00006, 12/3/99]

Operating Requirements

12.6 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.

[Tier II Permit No. 077-00006, 12/3/99]

Performance tests

12.7 **PM and PM_{10} Performance Test**

12.7.1 The permittee shall conduct a compliance test once per annum to demonstrate compliance with hourly PM and PM_{10} emissions limits in Permit Conditions 12.2 and 12.3.

[IDAPA 58.01.01.322.06, 5/1/94; Tier II Permit No. 077-00006, 12/3/99; 40 CFR 52.670 (d), 8/14/06]

12.7.2 The permittee shall record the equivalent P_2O_5 feed rate to the process, the pressure drop across each scrubber, and the flow rate of the scrubber liquid to each scrubber during compliance tests.

[IDAPA 58.01.01.322.06, 5/1/94; 40 CFR 52.670 (d), 8/14/06]

12.7.3 The permittee shall conduct a visible emissions evaluation during each PM_{10} compliance test. The evaluation shall be conducted in accordance with the procedures contained in IDAPA 58.01.01.625.

[Tier II Permit No. 077-00006, 12/3/99; 40 CFR 52.670 (d), 8/14/06]

12.8 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; Tier II Permit No. 077-00006, 12/3/99]

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 40 CFR 63.600(b)(1) Each wet-process phosphoric acid process line, the requirements of 40 CFR 63, Subpart AA apply to the following emission points which are components of a wet-process phosphoric acid process line: reactors, filters, evaporators, and hot wells

[40 CFR 63.600(b)(1)]

12.10 **40 CFR 63 Subpart AA - § 63.602 Standards for existing sources**

On and after the date on which the performance test required to be conducted by 40 CFR 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 10.0 gram/metric ton of equivalent P_2O_5 feed (0.020 lb/ton)

[40 CFR 63.602(a)]

12.11 **40 CFR 63 Subpart AA - § 63.602 Standards for existing sources**

No owner or operator shall introduce into any evaporative cooling tower any liquid effluent from any wet scrubbing device installed to control emissions from process equipment. Each owner or operator of an affected source subject to 40 CFR 63.602(e) must certify to the Administrator (i.e., DEQ) annually that he/she has complied with the requirements contained in this section.

[40 CFR 63.602(e)]

Operating and Monitoring Requirements

12.12 **40 CFR 63 Subpart AA - § 63.604 Operating requirements**

On or after the date on which the performance test required to be conducted by 40 CFR 63.7 and 40 CFR 63.606 is required to be completed, the owner/operator using a wet scrubbing emission control system must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to the requirements of 40 CFR 63.605(d)(1) or (2).

[40 CFR 63.604; Tier II Permit No. 077-00006, 12/3/99]

12.13 **40 CFR 63 Subpart AA - § 63.605 Monitoring requirements**

Each owner or operator of a new or existing wet-process phosphoric acid process line subject to the provisions of 40 CFR 63, Subpart AA shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ±5% over its operating range.

[40 CFR 63.605(a)(1)]

12.14 **40 CFR 63 Subpart AA - § 63.605 Monitoring requirements**

Each owner or operator of a new or existing wet-process phosphoric acid process subject to the provisions of 40 CFR 63, Subpart AA shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed using a monitoring system for measuring mass flow rate which meets the requirements of 40 CFR 63.605(a) and then by proceeding according to 40 CFR 63.606(c)(3).

[40 CFR 63.605(b)(1)]

12.15 **40 CFR 63 Subpart AA - § 63.605 Monitoring requirements**

Each owner or operator of a new or existing wet-process phosphoric acid process line using a wet scrubbing emission control system shall install, calibrate, maintain, and operate the following monitoring systems:

(1) A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5% over its operating range.

(2) A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5% over its operating range.

[40 CFR 63.605(c)]

12.16 **40 CFR 63 Subpart AA - § 63.605 Monitoring requirements**

Following the date on which the performance test required in 40 CFR 63.606 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides contained in 40 CFR 63, Subpart AA must establish allowable ranges for operating parameters using the methodology of 40 CFR 63.605(d)(1) or (2):

(1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is ±20 percent of the baseline average value determined as a requirement of 40 CFR 63.606(c)(4). The Administrator (i.e., DEQ) 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,

but, in no instance shall the adjustment be reduced to less than ±10 percent. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. When a source using the methodology of this paragraph is retested, the owner or operator shall determine whether new allowable ranges of baseline average values will be based upon the new performance test or (if the new performance test results are within the previously established range) whether there will be no change in the operating parameters derived from previous tests. When a source using the methodology of this paragraph is retested and the performance test results are submitted to the Administrator pursuant to 40 CFR 63.607(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate whether the operating range will be based on the new performance test or the previously established range. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges for the daily averages of the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with this subpart. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in 40 CFR 63.606(c)(4). As an alternative, the owner or operator can establish the allowable ranges using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in this subpart and established in the manner required in 40 CFR 63.606(c)(4). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

[40 CFR 63.605(d)]

Performance Tests and Compliance Provisions

12.17 **40 CFR 63 Subpart AA - § 63.606 Performance tests and compliance provisions**

On or before June 10, 2002, and once per annum thereafter, each owner or operator of a phosphoric acid manufacturing plant shall conduct a performance test to demonstrate compliance with the total fluorides emissions limits in Permit Condition 12.1 and 40 CFR 63.602(a) for each existing wet-process phosphoric acid process line. The owner or operator shall conduct the performance test according to the procedures in 40 CFR Part 63, Subpart A and in 40 CFR 63.606.

[40 CFR 63.606(a)(1); Tier II Permit No. 077-00006, 12/3/99]

12.18 **40 CFR 63 Subpart AA - § 63.606 Performance tests and compliance provisions**

In conducting performance tests, each owner or operator of an affected source shall use as reference methods and procedures the test methods in 40 CFR Part 60, Appendix A, or other methods and procedures as specified in 40 CFR 63.606, except as provided in 40 CFR 63.7(f).

[40 CFR 63.606(b); Tier II Permit No. 077-00006, 12/3/99]

12.19 **40 CFR 63 Subpart AA - § 63.606 Performance tests and compliance provisions**

Each owner or operator of a existing wet-process phosphoric acid process shall determine compliance with the applicable total fluorides standards in §63.602 as follows:

(1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left(\sum_{i=1}^{N} C_{si} Q_{sdi} \right) \Big/ (PK)$$

Where:

E = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P_2O_5 feed.
C_{si} = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).
Q_{sdi} = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).
N = number of emission points associated with the affected facility.
P = equivalent P_2O_5 feed rate, metric ton/hr (ton/hr).
K = conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B (40 CFR Part 60, Appendix A) shall be used to determine the total fluorides concentration (C_{si}) and volumetric flow rate (Q_{sdi}) of the effluent gas from each of the emission points. 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 Sections 7.3.3 and 7.3.4. in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).

(3) The equivalent P_2O_5 feed rate (P) shall be computed using the following equation:

$P = M_p R_p$

Where:

M_p = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).
R_p = P_2O_5 content, decimal fraction.

(i) The accountability system described in 40 CFR Part 63.605(a) and (b) shall be used to determine the mass flow rate (M_p) of the phosphorus-bearing feed.

(ii) The P_2O_5 content (R_p) of the feed shall be determined using as appropriate the following methods (incorporated by reference - see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, 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 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- 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.

(4) To comply with 40 CFR 63.605(d)(1) or (2), the owner or operator shall use the monitoring systems in 40 CFR 63.605(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of 40 CFR 63.605(d)(1) or (2).

[40 CFR 63.606(c)]

Notification, Recordkeeping, and Reporting Requirements

12.20 **40 CFR 63 Subpart AA - § 63.607 Notification, recordkeeping, and reporting requirements**
Each owner or operator subject to the requirements of 40 CFR 63, Subpart AA shall comply with the notification requirements in 40 CFR 63.9.

[40 CFR 63.607(a)]

12.21 **40 CFR 63 Subpart AA - § 63.607 Notification, recordkeeping, and reporting requirements**
Each owner or operator subject to the requirements of 40 CFR 63, Subpart AA shall comply with the record keeping requirements in 40 CFR 63.10.

[40 CFR 63.607(b)]

12.22 **40 CFR 63 Subpart AA - § 63.607 Notification, recordkeeping, and reporting requirements**
The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 as follows:

(1) Performance test report. As required by 40 CFR 63.10, the owner or operator shall report the results of the initial and annual performance tests as part of the notification of compliance status required in 40 CFR 63.9.

(2) Excess emissions report. As required by 40 CFR 63.10, the owner or operator of an affected source shall submit an excess emissions report for any exceedance of an operating parameter limit. The report shall contain the information specified in 40 CFR 63.10. When no exceedances of an operating parameter have occurred, such information shall be included in the report. The report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, the owner or operator shall report quarterly until a request to reduce reporting frequency is approved as described in 40 CFR 63.10.

(3) Summary report. If the total duration of control system exceedances for the reporting period is less than 1% of the total operating time for the reporting period, the owner or operator shall submit a summary report containing the information specified in 40 CFR 63.10 rather than the full excess emissions report, unless required by the Administrator. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half.

(4) If the total duration of control system operating parameter exceedances for the reporting period is 1% or greater of the total operating time for the reporting period, the owner or operator shall submit a summary report and the excess emissions report.

[40 CFR 63.607(c)]

Compliance Date

12.23 **40 CFR 63 Subpart AA - § 63.609 Compliance dates**

The permittee shall comply with 40 CFR 63, Subpart AA no later than June 10, 2002.

[40 CFR 63.609(a)]

Exemption from New Source Performance Standards

12.24 **40 CFR 63 Subpart AA - § 63.610 Exemption from new source performance standards**

Any affected source subject to the provisions of 40 CFR 63, Subpart AA is exempted from any otherwise applicable new source performance standard contained in 40 CFR 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 CAA and the source must be in compliance with all requirements of 40 CFR 63, Subpart AA. For each affected source, this exemption is effective the date that the owner or operator demonstrates to the Administrator that the requirements of 40 CFR 63.604, 63.605 and 63.606 have been met have been met.

[40 CFR 63.610]

Applicability of 40 CFR 63, General Provisions

12.25 **40 CFR 63 Subpart AA - § 63.608 Applicability of general provisions**

The owner or operator shall comply with the requirements of the general provisions in 40 CFR 63, Subpart A, as contained in Appendix A to 40 CFR 63, Subpart AA.

Appendix A to Subpart AA of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart AA

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.1(a)(1) through (4)	General Applicability	Yes.	
63.1(a)(5)		No	[Reserved].
63.1(a)(6) through (8)		Yes.	
63.1(a)(9)		No	[Reserved].
63.1(a)(10) through (14)		Yes.	
63.1(b)	Initial Applicability Determination	Yes.	
63.1(c)(1)	Applicability After Standard Established	Yes.	
63.1(c)(2)		Yes.	Some plants may be area sources.
63.1(c)(3)		No	[Reserved].
63.1(c)(4) and (5)		Yes.	
63.1(d)		No	[Reserved].
63.1(e)	Applicability of Permit Program	Yes.	
63.2	Definitions	Yes.	Additional definitions in §63.601.
63.3	Units and Abbreviations	Yes.	
63.4(a)(1) through (3)	Prohibited Activities	Yes.	
63.4(a)(4)		No	[Reserved].
63.4(a)(5)		Yes.	
63.4(b) and (c)	Circumvention/Severability	Yes.	
63.5(a)	Construction/Reconstruction Applicability	Yes.	
63.5(b)(1)	Existing, New, Reconstructed Sources Requirements	Yes.	
63.5(b)(2)		No	[Reserved].

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.5(b)(3) through (6)		Yes.	
63.5(c)		No	[Reserved].
63.5(d)	Application for Approval of Construction/ Reconstruction	Yes.	
63.5(e)	Approval of Construction/Reconstruction	Yes.	
63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	
63.6(a)	Compliance with Standards and Maintenance Applicability	Yes.	
63.6(b)(1) through (5)	New and Reconstructed Sources Dates	Yes.	See also §63.609.
63.6(b)(6)		No	[Reserved].
63.6(b)(7)		Yes.	
63.6(c)(1)	Existing Sources Dates	Yes.	§63.609 specifies dates.
63.6(c)(2)		Yes.	
63.6(c)(3) and (4)		No	[Reserved].
63.6(c)(5)		Yes.	
63.6(d)		No	[Reserved].
63.6(e)(1) and (2)	Operation & Maintenance Requirements	Yes	
63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	
63.6(f)	Compliance with Emission Standards	Yes	
63.6(g)	Alternative Standard	Yes.	
63.6(h)	Compliance with Opacity/VE Standards	No	Subpart AA does not include VE/opacity standards.
63.6(i)(1) through (14)	Extension of Compliance	Yes.	
63.6(i)(15)		No	[Reserved].
63.6(i)(16)		Yes.	
63.6(j)	Exemption from Compliance	Yes.	
63.7(a)	Performance Test Requirements Applicability	Yes.	§63.609(a) applies rather than §63.7(a)(2)(iii).
63.7(b)	Notification	Yes.	
63.7(c)	Quality Assurance/Test Plan	Yes.	
63.7(d)	Testing Facilities	Yes.	
63.7(e)	Conduct of Tests	Yes.	§§63.604 and 63.605 specify additional requirements.
63.7(f)	Alternative Test Method	Yes.	
63.7(g)	Data Analysis	Yes.	
63.7(h)	Waiver of Tests	Yes.	
63.8(a)(1)	Monitoring Requirements Applicability	Yes.	

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.8(a)(2)		No	Subpart AA does not require CMS performance specifications.
63.8(a)(3)		No	[Reserved].
63.8(a)(4)		Yes.	
63.8(b)	Conduct of Monitoring	Yes.	
63.8(c)(1) through (4)	CMS Operation/Maintenance	Yes.	
63.8(c)(5) through (8)		No	Subpart AA does not require COMS/CEMS or CMS performance specifications.
63.8(d)	Quality Control	Yes.	
63.8(e)	CMS Performance Evaluation	No	Subpart AA does not require CMS performance evaluations
63.8(f)(1) through (5)	Alternative Monitoring Method	Yes.	
63.8(f)(6)	Alternative to RATA Test	No	Subpart AA does not require CEMS.
63.8(g)(1)	Data Reduction	Yes.	
63.8(g)(2)		No	Subpart AA does not require COMS or CEMS
63.8(g)(3) through (5)		Yes.	
63.9(a)	Notification Requirements Applicability	Yes.	
63.9(b)	Initial Notifications	Yes.	
63.9(c)	Request for Compliance Extension	Yes.	
63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	
63.9(e)	Notification of Performance Test	Yes.	
63.9(f)	Notification of VE/Opacity Test	No	Subpart AA does not include VE/opacity standards.
63.9(g)	Additional CMS Notifications	No	Subpart AA does not require CMS performance evaluation, COMS, or CEMS.
63.9(h)(1) through (3)	Notification of Compliance Status	Yes.	
63.9(h)(4)		No	[Reserved].
63.9(h)(5) and (6)		Yes.	
63.9(i)	Adjustment of Deadlines	Yes.	
63.9(j)	Change in Previous Information	Yes.	
63.10(a)	Recordkeeping/Reporting-Applicability	Yes.	
63.10(b)	General Recordkeeping Requirements	Yes.	
63.10(c)(1)	Additional CMS Recordkeeping	Yes.	
63.10(c)(2) through (4)		No	[Reserved].
63.10(c)(5)		Yes.	
63.10(c)(6)		No	Subpart AA does not require CMS performance specifications.
63.10(c)(7) and (8)		Yes.	

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.10(c)(9)		No	[Reserved].
63.10(c)(10) through (13)		Yes.	
63.10(c)(14)		No	Subpart AA does not require a CMS quality control program.
63.10(c)(15)		Yes.	
63.10(d)(1)	General Reporting Requirements	Yes.	
63.10(d)(2)	Performance Test Results	Yes.	
63.10(d)(3)	Opacity or VE Observations	No	Subpart AA does not include VE/opacity standards.
63.10(d)(4) and (5)	Progress Reports/Startup, Shutdown, and Malfunction Reports	Yes.	
63.10(e)(1) and (2)	Additional CMS Reports	No	Subpart AA does not require CEMS or CMS performance evaluations.
63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes.	§63.606(c)(2) includes additional requirements. A CMS performance report is not required.
63.10(e)(4)	COMS Data Reports	No	Subpart AA does not require COMS.
63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
63.11(a)	Control Device Requirements Applicability	Yes.	
63.11(b)	Flares	No	Flares not applicable.
63.12	State Authority and Delegations	Yes.	
63.13	Addresses	Yes.	
63.14	Incorporation by Reference	Yes.	
63.15	Information Availability/Confidentiality	Yes.	

[40 CFR 63.608]

13. EMISSIONS UNIT GROUP 11: PLANT ROADS

Summary Description

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

Light-and heavy-duty vehicles use plant roads to transport personnel and materials within the facility.

Table 13.1 relates the emissions point to the emissions units.

Table 13.1 EMISSIONS UNITS AND EMISSIONS POINT

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
Paved roads	Reasonable methods as needed	Fugitive
Unpaved roads	Reasonable methods as needed	

Table 13.2 contains only a summary of the requirements that apply to plant roads. Specific permit requirements are listed below Table 13.2.

Table 13.2 SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
13.1	PM	3.12 lb/hr, 13.65 T/yr	Tier II Permit No. 077-00006	13.1
13.2	PM_{10}	1.94 lb/hr, 8.48 T/yr	Tier II Permit No. 077-00006	13.2

Permit Limits / Standard Summary and Recordkeeping

13.1 The PM emissions from plant roads shall not exceed 3.12 lb/hr and 13.65 T/yr. The emissions limits shall be determined by DEQ's emissions estimation methods in J.R. Simplot's plant expansion permit application analysis.

[Tier II Permit No. 077-00006, 12/3/99]

13.2 The PM_{10} emissions from plant roads shall not exceed 1.94 lb/hr and 8.48 T/yr. The emissions rates shall be determined using the *PM_{10} Air Quality Improvement Plan for Power and Bannock Counties* dated May 1993.

[Tier II Permit No. 077-00006, 12/3/99]

14. EMISSIONS UNIT GROUP 12: 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 evaporator condensers of the Phosphoric Acid Plant and Purified Phosphoric Acid Plant 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, the east reclaim cooling tower contains three cells, and the west reclaim cooling tower contains three cells.

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

Table 14.1 below describes the emissions points and control devices of the reclaim cooling towers.

Table 14.1 EMISSIONS UNITS, CONTROL DEVICES, AND POINTS

Emissions Unit(s) / Process(es)	Source ID	Control Device	Emissions Point
North reclaim cooling tower	908	Mist-eliminator (primary function as process equipment)	Exhaust fans
West reclaim cooling tower	909	Mist-eliminator (primary function as process equipment)	Exhaust fans
East reclaim cooling tower	910	Mist-eliminator (primary function as process equipment)	Exhaust fans

Table 14.2 contains only a summary of the requirements that apply to the reclaim cooling towers. Specific permit requirements are listed below Table 14.2.

Table 14.2 SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
14.1	PM	Process weight rate	IDAPA 58.01.01.701	14.5, 14.6
		17.65 lb/hr, 77.31 T/yr for each cell	Tier II Permit No. 077-00006	
14.2	PM_{10}	3.53 lb/hr, 15.48 T/yr for each cell	Tier II Permit No. 077-00006	
14.3	Fluoride	4.9 lb/hr, 21.70 T/yr for each cell	Tier II Permit No. 077-00006	14.4, 14.5, 14.7
14.4	Inlet streams	No effluent from air pollutant control scrubber	40 CFR 63, Subpart AA	14.4, 14.9

Permit Limits / Standard Summary

14.1 **Particulate Matter Emissions**

14.1.1 Particulate matter emissions from each cell of the reclaim cooling towers shall not exceed 17.65 lb/hr and 77.31 T/yr. 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).

[Tier II Permit No. 077-00006, 12/3/99]

14.1.2 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:

a. If PW is less than 9,250 lb/hr,

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

b. 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]

14.2 The PM_{10} emissions from each cell of the reclaim cooling towers shall not exceed 3.53 lb/hr, and 15.48 T/yr. 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).

[Tier II Permit No. 077-00006, 12/3/99; 40 CFR 52.670 (d), 8/14/06]

14.3 Fluoride emissions from each cell of the reclaim cooling towers shall not exceed 4.9 lb/hr, and 21.70 T/yr. 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).

[Tier II Permit No. 077-00006, 12/3/99]

Operating Requirements

14.4 No owner or operator shall introduce into any evaporative cooling tower any liquid effluent from any wet scrubbing device installed to control emissions from process equipment. Each owner or operator of an affected source subject to this paragraph must certify to the Administrator annually that he/she has complied with the requirements contained in this section.

[40 CFR 63.602(e)]

14.5 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.

Within 60 days of permit issuance, 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.

[IDAPA 58.01.01.322.01, 3/19/99; IDAPA 58.01.01.322.06, 07, 5/1/94]

Performance Tests and Compliance Procedures

14.6 **PM and PM_{10} Compliance Tests:**

14.6.1 Reserved

14.6.2 In and after 2005, for PM and PM_{10} 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.

[IDAPA 58.01.01.322.06 & 09, 5/1/94]

14.6.3 The permittee shall conduct a visible emissions evaluation during each PM_{10} compliance test. The visible emissions evaluation shall be conducted in accordance with the procedures contained in IDAPA 58.01.01.625.

[Tier II Permit No. 077-00006, 12/3/99]

14.7 **Total Fluorides Compliance Tests**

To demonstrate compliance with the hourly total fluorides emissions limit in Permit Condition 14.3, 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.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

14.8 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]

15. EMISSIONS UNIT GROUP 13: 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. NOx 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, hot wells, 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 gypsum thickener and then to the gypsum stack.

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 oxidation of the impurities restores an inherent brilliant green color of phosphoric acid after filtration. The NOx produced during oxidation, in both the reactor vessel and the first 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 primary control scrubber prior to discharging to the atmosphere.
- Acid Filtration - cooled SPA is delivered to filters where the acid is separated from the solids under pressure. The SPA is piped to the product storage tanks.

Table 15.1 describes the control devices used in controlling emissions from the SPA plant processes.

Table 15.1 EMISSIONS SOURCES

Source ID	Emissions Unit(s) / Process(es)	Source Description	Emissions Control Device	Emissions Point
1102.0	Product tank	SPA plant/storage	Primary control scrubber	Scrubber stack
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	Second and third stage 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 15.2 contains only a summary of the requirements that apply to the SPA plant. Specific permit requirements are listed below Table 15.2.

Table 15.2 SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Parameter	Permit Limit/ Standard Summary	Applicable Requirements Reference	Operating, Monitoring and Recordkeeping Requirements
15.1	Fugitive fluorides	0.37 lb/hr, 1.62 T/yr	Tier II Permit No. 077-00006	15.1
15.2	NO_x	0.10 lb/hr, 0.4 T/yr	Tier II Permit No. 077-00006	15.4, 15.5
15.3	CO	4.2 lb/hr, 18.3 T/yr	Tier II Permit No. 077-00006	15.6
15.7	Fluorides	0.010 lb/T P_2O_5 feed	40 CFR 63.602(b)(1)	15.9- 15.18

[1] If any requirement in this permit conflicts with any requirement contained in 40 CFR 63, the requirement in 40 CFR 63 shall take precedence.

Permit Limits / Standard Summary

15.1 Fugitive emissions of total fluorides from this process shall be reasonably controlled and shall not exceed 0.37 lb/hr and 1.62 T/yr. The permittee shall maintain the documentation that lists the methods to control fugitive to demonstrate compliance with the limits.

[Tier II Permit No. 077-00006, 12/3/99; IDAPA 58.01.01.332.06, 5/1/94]

15.2 Emissions of NO_x from the SPA oxidation process shall not exceed 0.10 lb/hr and 0.40 T/yr. (EPA Method 7 NO_x testing was conducted and documented in reports dated April 30, 1991 and July 30, 1992. Both tests demonstrated compliance with the pound per hour emissions limit.)

[Tier II Permit No. 077-00006, 12/3/99; PTC No. 1260-00006, 4/17/90]

15.3 Emissions of CO from the SPA oxidation process shall not exceed 4.2 lb/hr and 18.3 T/yr.

[Tier II Permit No. 077-00006, 12/3/99; PTC No. 1260-00006, 4/17/90]

Operating Requirements

15.4 The extended absorber system shall be operated according to Simplot's Standard Operating Procedures (SOPs) for the extended absorber system.

[IDAPA 58.01.01.322.01, 3/19/99]

15.5 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.

[Tier II Permit No. 077-00006, 12/3/99; PTC No. 1260-00006, 4/17/90]

Monitoring Requirements

15.6 The permittee shall calculate emissions using emissions factor of 0.042 lb CO/ton of equivalent P_2O_5 feed obtained during December 9, 2004 source testing to demonstrate compliance with the CO limits in Permit Condition 15.3. The lb/hr shall be determined by multiplying the emissions factor by the actual or allowable equivalent P_2O_5 feed rate of the superphosphoric acid plant. The ton-per-year rate 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 the stack operate(s).

[Tier II Permit No. 077-00006, App. A, 12/3/99; 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

15.7 **40 CFR 63 Subpart AA - § 63.602 Standards for existing sources**

For the superphosphoric acid process line (any process line which concentrates wet-process phosphoric acid to 66% or greater P_2O_5 content by weight), for existing sources, the permittee shall not emit into the atmosphere from any affected source any gases which contain total fluorides in excess of 0.010 lb/ton of equivalent P_2O_5 feed.

[40 CFR 63.601; 40 CFR 63.602(b)(1)]

15.8 **40 CFR 63 Subpart AA - § 63.602 Standards for existing sources**

No owner or operator shall introduce into any evaporative cooling tower any liquid effluent from any wet scrubbing device installed to control emissions from process equipment. Each owner or operator of an affected source subject to 40 CFR 63.602(e) must certify to the Administrator annually that he/she has complied with the requirements contained in this section.

[40 CFR 63.602(e)]

Operating and Monitoring Requirements

15.9 **40 CFR 63 Subpart AA - § 63.604 Operating requirements**

On or after the date on which the performance test required to be conducted by 40 CFR 63.7 and 40 CFR 63.606(a)(1) is required to be completed, the owner/operator using a wet scrubbing emission control system must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to the requirements of 40 CFR 63.605(d).

[40 CFR 63.604; Tier II Permit No. 077-00006, 12/3/99]

15.10 **40 CFR 63 Subpart AA - § 63.605 Monitoring requirements**

Each owner or operator of a new or existing superphosphoric acid process line subject to the provisions of 40 CFR 63, Subpart AA shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ±5% over its operating range.

[40 CFR 63.605(a)(1)]

15.11 **40 CFR 63 Subpart AA - § 63.605 Monitoring requirements**

Each owner or operator of a new or existing superphosphoric acid process line subject to the provisions of 40 CFR 63, Subpart AA shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed using a monitoring system for measuring mass flow rate which meets the requirements of 40 CFR 63.605(a) and then by proceeding according to 40 CFR 606(c)(3).

[40 CFR 63.605(b)(1)]

15.12 **40 CFR 63 Subpart AA - § 63.605 Monitoring requirements**

Each owner or operator of a new or existing superphosphoric acid process line using a wet scrubbing emission control system shall install, calibrate, maintain, and operate the following monitoring systems:

(1) A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5% over its operating range.

(2) A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ±5% over its operating range.

[40 CFR 63.605(c)]

15.13 **40 CFR 63 Subpart AA - § 63.605 Monitoring requirements**

Following the date on which the performance test required in 40 CFR 63.606 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in 40 CFR 63, Subpart AA must establish allowable ranges for operating parameters using the methodology of 40 CFR 63.605(d)(1) or (2):

(1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is ±20% of the baseline average value determined as a requirement of 40 CFR 63.606(c)(4). The Administrator retains the right to reduce the ±20% 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, but, in no instance shall the adjustment be reduced to less than ±10%. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. When a source using the methodology of this paragraph is retested, the owner or operator shall determine whether new allowable ranges of baseline average values will be based upon the new performance test or (if the new performance test results are within the previously established range) whether there will be no change in the operating parameters derived from previous tests. When a source using the methodology of this paragraph is retested and the performance test results are submitted to the Administrator pursuant to 40 CFR 63.607(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate whether the operating range will be based on the new performance test or the previously established range. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges for the daily averages of the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with Subpart AA. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in 40 CFR 63.606(c)(4). As an alternative, the owner or operator can establish the allowable ranges using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in Subpart AA and established in the manner required in 40 CFR 63.606(c)(4)). The source shall certify that the control

devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

[40 CFR 63.605(d)]

15.14 **40 CFR 63 Subpart AA - § 63.606 Performance tests and compliance provisions**

15.14.1 On or before June 10, 2002, and once per annum thereafter, each owner or operator of a phosphoric acid manufacturing plant shall conduct a performance test to demonstrate compliance with total fluorides emission standard for each existing, superphosphoric acid process line. The owner or operator shall conduct the performance test according to the procedures in 40 CFR Part 63, Subpart A and in 40 CFR 63.606.

[40 CFR 63.606(a)(1); Tier II Permit No. 077-00006, 12/3/99]

15.14.2 In conducting performance tests, each owner or operator of an affected source shall use as reference methods and procedures the test methods in 40 CFR Part 60, Appendix A, or other methods and procedures as specified in 40 CFR 63.606, except as provided in 40 CFR 63.7(f).

[Tier II Permit No. 077-00006, 12/3/99; 40 CFR 63.606(b)]

15.14.3 Each owner or operator of a new or existing superphosphoric acid process line shall determine compliance with the applicable total fluorides standards in 40 CFR 63.602(b)(1), as specified in (1) and (2).

(1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left(\sum_{i=1}^{N} C_{si} Q_{sdi} \right) \Big/ (PK)$$

Where:

E = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P_2O_5 feed.
C_{si} = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).
Q_{sdi} = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).
N = number of emission points associated with the affected facility.
P = equivalent P_2O_5 feed rate, metric ton/hr (ton/hr).
K = conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B (40 CFR Part 60, Appendix A) shall be used to determine the total fluorides concentration (Csi) and volumetric flow rate (Qsdi) of the effluent gas from each of the emission points. 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 Sections 7.3.3 and 7.3.4. in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).

(3) The equivalent P_2O_5 feed rate (P) shall be computed using the following equation:

$$P = Mp\ Rp$$

Where:

M_p = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).
R_p = P_2O_5 content, decimal fraction.

(i) The accountability system described in 40 CFR 63.605(a) and (b) shall be used to determine the mass flow rate (M_p) of the phosphorus-bearing feed.

(ii) The P_2O_5 content (R_p) of the feed shall be determined using as appropriate the following methods (incorporated by reference -- see 40 CFR 63.14) specified in the Book of Methods Used and Adopted by the Association of Florida Phosphate Chemists, Seventh Edition 1991, 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- 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.

(4) To comply with 40 CFR 63.605(d)(1) or (2), the owner or operator shall use the monitoring systems in 40 CFR 63.605(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of 40 CFR 63.605(d)(1) or (2).

[40 CFR 63.606(c)]

15.15 40 CFR 63 Subpart AA - § 63.607 Notification, recordkeeping, and reporting requirements

15.15.1 Each owner or operator subject to the requirements of this 40 CFR 63, Subpart AA shall comply with the notification requirements in 40 CFR 63.9.

[40 CFR 63.607(a)]

15.15.2 Each owner or operator subject to the requirements of 40 CFR 63, Subpart AA shall comply with the record-keeping requirements in 40 CFR 63.10.

[40 CFR 63.607(b)]

15.15.3 The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 as follows:

(1) Performance test report. As required by 40 CFR 63.10, the owner or operator shall report the results of the initial and annual performance tests as part of the notification of compliance status required in 40 CFR 63.9.

(2) Excess emissions report. As required by 40 CFR 63.10, the owner or operator of an affected source shall submit an excess emissions report for any exceedance of an operating parameter limit. The report shall contain the information specified in 40 CFR 63.10. When no exceedances of an operating parameter have occurred, such information shall be included in the report. The report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, the owner or operator shall report quarterly until a request to reduce reporting frequency is approved as described in 40 CFR 63.10.(3)

(3) Summary report. If the total duration of control system exceedances for the reporting period is less than 1% of the total operating time for the reporting period, the owner or operator shall submit a summary report containing the information specified in 40 CFR 63.10 rather than the full excess emissions report, unless required by the Administrator. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half.

(4) If the total duration of control system operating parameter exceedances for the reporting period is 1% or greater of the total operating time for the reporting period, the owner or operator shall submit a summary report and the excess emissions report.

[40 CFR 63.607(c)]

Compliance Date

15.16 **40 CFR 63 Subpart AA - § 63.609 Compliance dates**

The permittee shall achieve compliance with 40 CFR 63, Subpart AA no later than June 10, 2002.

[40 CFR 63.609(a)]

Exemption from New Source Performance Standards

15.17 **40 CFR 63 Subpart AA - § 63.610 Exemption from new source performance standards**

Any affected source subject to the provisions of 40 CFR 63, Subpart AA is exempted from any otherwise applicable new source performance standard contained in 40 CFR 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 CAA and the source must be in compliance with the requirements of 40 CFR 63, Subpart AA. For each affected source, this exemption is effective the date the owner or operator demonstrates to the Administrator that the requirements of 40 CFR 63.604, 605, and 606 have been met.

[40 CFR 63.610]

Applicability of MACT General Provisions

15.18 **40 CFR 63 Subpart AA - § 63.608 Applicability of general provisions**

The owner or operator shall comply with the requirements of the general provisions in 40 CFR Part 63, Subpart A as shown in Appendix A to 40 CFR Part 63, Subpart AA.

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.1(a)(1) through (4)	General Applicability	Yes.	
63.1(a)(5)		No	[Reserved].
63.1(a)(6) through (8)		Yes.	

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.1(a)(9)		No	[Reserved].
63.1(a)(10) through (14)		Yes.	
63.1(b)	Initial Applicability Determination	Yes.	
63.1(c)(1)	Applicability After Standard Established	Yes.	
63.1(c)(2)		Yes.	Some plants may be area sources.
63.1(c)(3)		No	[Reserved].
63.1(c)(4) and (5)		Yes.	
63.1(d)		No	[Reserved].
63.1(e)	Applicability of Permit Program	Yes.	
63.2	Definitions	Yes.	Additional definitions in §63.601.
63.3	Units and Abbreviations	Yes.	
63.4(a)(1) through (3)	Prohibited Activities	Yes.	
63.4(a)(4)		No	[Reserved].
63.4(a)(5)		Yes.	
63.4(b) and (c)	Circumvention/Severability	Yes.	
63.5(a)	Construction/Reconstruction Applicability	Yes.	
63.5(b)(1)	Existing, New, Reconstructed Sources Requirements	Yes.	
63.5(b)(2)		No	[Reserved].
63.5(b)(3) through (6)		Yes.	
63.5(c)		No	[Reserved].
63.5(d)	Application for Approval of Construction/ Reconstruction	Yes.	
63.5(e)	Approval of Construction/Reconstruction	Yes.	
63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	
63.6(a)	Compliance with Standards and Maintenance Applicability	Yes.	
63.6(b)(1) through (5)	New and Reconstructed Sources Dates	Yes.	See also §63.609.
63.6(b)(6)		No	[Reserved].
63.6(b)(7)		Yes.	
63.6(c)(1)	Existing Sources Dates	Yes.	§63.609 specifies dates.
63.6(c)(2)		Yes.	
63.6(c)(3) and (4)		No	[Reserved].
63.6(c)(5)		Yes.	
63.6(d)		No	[Reserved].

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.6(e)(1) and (2)	Operation & Maintenance Requirements	Yes	
63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	
63.6(f)	Compliance with Emission Standards	Yes	
63.6(g)	Alternative Standard	Yes.	
63.6(h)	Compliance with Opacity/VE Standards	No	Subpart AA does not include VE/opacity standards.
63.6(i)(1) through (14)	Extension of Compliance	Yes.	
63.6(i)(15)		No	[Reserved].
63.6(i)(16)		Yes.	
63.6(j)	Exemption from Compliance	Yes.	
63.7(a)	Performance Test Requirements Applicability	Yes.	§63.609(a) applies rather than §63.7(a)(2)(iii).
63.7(b)	Notification	Yes.	
63.7(c)	Quality Assurance/Test Plan	Yes.	
63.7(d)	Testing Facilities	Yes.	
63.7(e)	Conduct of Tests	Yes.	§§63.604 and 63.605 specify additional requirements.
63.7(f)	Alternative Test Method	Yes.	
63.7(g)	Data Analysis	Yes.	
63.7(h)	Waiver of Tests	Yes.	
63.8(a)(1)	Monitoring Requirements Applicability	Yes.	
63.8(a)(2)		No	Subpart AA does not require CMS performance specifications.
63.8(a)(3)		No	[Reserved].
63.8(a)(4)		Yes.	
63.8(b)	Conduct of Monitoring	Yes.	
63.8(c)(1) through (4)	CMS Operation/Maintenance	Yes.	
63.8(c)(5) through (8)		No	Subpart AA does not require COMS/CEMS or CMS performance specifications.
63.8(d)	Quality Control	Yes.	
63.8(e)	CMS Performance Evaluation	No	Subpart AA does not require CMS performance evaluations
63.8(f)(1) through (5)	Alternative Monitoring Method	Yes.	
63.8(f)(6)	Alternative to RATA Test	No	Subpart AA does not require CEMS.
63.8(g)(1)	Data Reduction	Yes.	
63.8(g)(2)		No	Subpart AA does not require COMS or CEMS

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.8(g)(3) through (5)		Yes.	
63.9(a)	Notification Requirements Applicability	Yes.	
63.9(b)	Initial Notifications	Yes.	
63.9(c)	Request for Compliance Extension	Yes.	
63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	
63.9(e)	Notification of Performance Test	Yes.	
63.9(f)	Notification of VE/Opacity Test	No	Subpart AA does not include VE/opacity standards.
63.9(g)	Additional CMS Notifications	No	Subpart AA does not require CMS performance evaluation, COMS, or CEMS.
63.9(h)(1) through (3)	Notification of Compliance Status	Yes.	
63.9(h)(4)		No	[Reserved].
63.9(h)(5) and (6)		Yes.	
63.9(i)	Adjustment of Deadlines	Yes.	
63.9(j)	Change in Previous Information	Yes.	
63.10(a)	Recordkeeping/Reporting-Applicability	Yes.	
63.10(b)	General Recordkeeping Requirements	Yes.	
63.10(c)(1)	Additional CMS Recordkeeping	Yes.	
63.10(c)(2) through (4)		No	[Reserved].
63.10(c)(5)		Yes.	
63.10(c)(6)		No	Subpart AA does not require CMS performance specifications.
63.10(c)(7) and (8)		Yes.	
63.10(c)(9)		No	[Reserved].
63.10(c)(10) through (13)		Yes.	
63.10(c)(14)		No	Subpart AA does not require a CMS quality control program.
63.10(c)(15)		Yes.	
63.10(d)(1)	General Reporting Requirements	Yes.	
63.10(d)(2)	Performance Test Results	Yes.	
63.10(d)(3)	Opacity or VE Observations	No	Subpart AA does not include VE/opacity standards.
63.10(d)(4) and (5)	Progress Reports/Startup, Shutdown, and Malfunction Reports	Yes.	
63.10(e)(1) and (2)	Additional CMS Reports	No	Subpart AA does not require CEMS or CMS performance evaluations.

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes.	§63.606(c)(2) includes additional requirements. A CMS performance report is not required.
63.10(e)(4)	COMS Data Reports	No	Subpart AA does not require COMS.
63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
63.11(a)	Control Device Requirements Applicability	Yes.	
63.11(b)	Flares	No	Flares not applicable.
63.12	State Authority and Delegations	Yes.	
63.13	Addresses	Yes.	
63.14	Incorporation by Reference	Yes.	
63.15	Information Availability/Confidentiality	Yes.	

[40 CFR 63.608]

16. EMISSIONS UNIT GROUP 14: 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 solid elemental sulfur being indirectly heated to liquid sulfur and then being dumped into underground pits. The liquid sulfur is burned in a furnace to produce SO_2. The SO_2 is oxidized to SO_3 in a converter. The SO_3 gas stream is passed through an absorber unit where it is absorbed in less concentrated sulfuric acid (approximately 93%) 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 mainly remove SO_2.

The DynaWave® SO_2 scrubber is a vertical gas/liquid contact barrel and spray jet, connected to a disengagement vessel. The disengagement vessel is a vertical, cylindrical 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 existing acidifier and stripping tower. Process gas passes through the Chevron demister and out of the disengagement vessel. The DynaWave® scrubber removes most of the SO_2 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 consists of a stripping system that recovers the scrubbed SO_2 for recycling to the drying tower. The gas exits the packed tower through the mist eliminator elements and proceeds to the plant stack.

Table 16.1 below describes the control devices used in controlling emissions from the sulfuric acid plant No. 300.

Table 16.1 SUMMARY OF EMISSION UNIT, CONTROL DEVICE, AND EMISSIONS POINT

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
Sulfuric acid plant No. 300	DynaWave reverse-jet scrubber followed by Ammsox packed-bed ammonia scrubber	No. 300 sulfuric stack

Table 16.2 contains only a summary of the requirements that apply to sulfuric acid plant No. 300. Specific permit requirements are listed below Table 16.2.

Table 16.2 SUMMARY OF PERMIT REQUIREMENTS

Permit Conditions	Parameter	Permit Limit/Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
16.1	SO_2	170 lb/hr--three hour average, 750 T/yr;	PTC No. 077-00006; 40 CFR 52.670 (d), 8/14/06	16.8 – 16.11 & 16.13 – 16.18
		4 lb/T of 100% H_2SO_4 produced	40 CFR 60.82;	
		28 lb/T of 100% H_2SO_4 produced	IDAPA 58.01.01.846	

16.2	H_2SO_4 mist	3 lb/hour--24-hr average, 13 T/yr ; 0.15 lb/T of 100% H_2SO_4 produced	PTC No. 077-00006; 40 CFR 60.83(1)	16.6, 16.8, 16.11, 16.14, 16.16, 16.17, 16.18
16.3	PM	Process weight rate	IDAPA 58.01.01.701	16.8, 16.9, 16.11, 16.13, 16.14, 16.16, 16.18
	PM_{10}	11.4 lb/hr, 49.8 T/yr	Consent Order 4/16/04; 40 CFR 52.670 (d), 8/14/06	
16.4	NO_x	64 T/yr	PTC No. 077-00006	16.8, 16.9, 16.11, 16.13, 16.14, 16.16
		16.0 lb/hr, based on 24-hour average	Consent Order 4/16/04; 40 CFR 52.670 (d), 8/14/06	
16.5	NH_3	2.5 lb/hr, 11 T/yr	PTC No. 077-00006	
16.6	Opacity	10%	40 CFR 60.83(2); PTC No. 077-00006	16.11, 16.12
16.7	Fugitive visible emissions	no fugitive emissions leaving property boundary	PTC No. 077-00006	16.7
16.8	100% H_2SO_4 Throughput	1,750 T/day – rolling 24-hr average	PTC No. 077-00006	16.13

Permit Limits / Standard Summary

16.1 **Emissions limits of SO_2**

16.1.1 Emissions of SO_2 shall not exceed 170 lb/hr calculated as a three-hour rolling average and 750 tons per any consecutive 12-month period.

[PTC No. 077-00006, 6/15/01; 40 CFR 52.670 (d), 8/14/06]

16.1.2 Emissions of SO_2 shall not exceed 4 lb/T of 100% sulfuric acid produced in accordance with 40 CFR 60.82.

[40 CFR 60.82; PTC No. 077-00006, 6/15/01]

16.1.3 Emissions of SO_2 shall not exceed 28 lb/T of 100% sulfuric acid produced in accordance with IDAPA 58.01.01.846.

[IDAPA 58.01.01.845, 4/5/00]

16.2 **Emissions limits of sulfuric acid mist**

16.2.1 Emissions of sulfuric acid mist (as total H_2SO_4) 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.

[PTC No. 077-00006, 6/15/01]

16.2.2 Emissions of acid mist shall not exceed 0.15 lb/T of sulfuric acid produced, expressed as 100% H_2SO_4 in accordance with 40 CFR 60.83(a)(1).

[40 CFR 60.83(a)(1)]

16.3 **Emissions limits of PM_{10} and PM**

16.3.1 Emissions of PM_{10} from the No. 300 sulfuric acid plant stack shall not exceed:

- 11.4 lb/hr, based on 24-hour average
- 49.8 tons per any consecutive 12-month period

[Consent Order 4/16/04; 40 CFR 52.670 (d), 8/14/06]

16.3.2 No person shall emit PM to the atmosphere from any process or process equipment commencing operation on or after October 1, 1979, 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.

a. If PW is less than 9,250 lb/hr,

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

b. 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]

16.4 **Emissions limits of NO_X**

Emissions of NO_x shall not exceed:

- 64 tons per any consecutive 12-month period

[PTC No. 077-00006, 6/15/01]

- 16.0 lb/hr, based on 24-hour average

[Consent Order 4/16/04; 40 CFR 52.670 (d), 8/14/06]

16.5 Emissions of NH_3 shall not exceed 2.5 lb/hr and 11 tons per any consecutive 12-month period.

[PTC No. 077-00006, 6/15/01]

16.6 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. 077-00006, 6/15/01]

16.7 Visible fugitive emissions shall not be observed leaving the property boundary for a period or periods aggregating no more than three minutes in any 60-minute period. Visible emissions from fugitive sources shall be determined by EPA Reference Method 22 as described in 40 CFR 60, Appendix A, or by a DEQ-approved alternative method.

[PTC No. 077-00006, 6/15/01]

Operating Requirements

16.8 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. 077-00006, 6/15/01]

16.9 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. 077-00006, 6/15/01]

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)]

Monitoring and Recordkeeping Requirements

16.10 **Continuous Emissions Monitoring**

A continuous emissions monitoring system shall be installed, calibrated, maintained, and operated to demonstrate compliance on a continual basis with the applicable standard for sulfur dioxide. The continuous emissions monitoring system shall be operated in accordance with 40 CFR 60.13, 40 CFR 60.84, 40 CFR 60 Appendix B, and the quality assurance requirements of 40 CFR 60 Appendix F. The continuous emissions monitoring system shall be installed and operational prior to conducting performance tests required under Permit Condition 16.11.

In accordance with 40 CFR 60.84

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

(b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each eight-hour period as follows:

$CF = k[(1.000 - 0.015r) / (r - s)]$

Where:

CF = conversion factor (kg/metric ton per ppm, lb/ton per ppm).

k = constant derived from material balance. For determining CF in metric units, k = 0.0653. For determining CF in English units, k = 0.1306.

r = percentage of sulfur dioxide by volume entering the gas converter. Appropriate corrections must be made for air injection plants subject to the Administrator's approval.

s = percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under paragraph (a) of this section.

(c) The owner or operator shall record all conversion factors and values under paragraph (b) of this section from which they were computed (i.e., CF, r, and s).

(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 SO_2 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 SO_2, O_2, and CO_2 (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 SO_2 monitor shall be as specified in paragraph (b) of this section. The span value for CO_2 (if required) shall be 10% and for O_2 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}

(e) For the purpose of reports under 40 CFR 60.7(c), periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards in Permit Condition 16.1.

[40 CFR 60.84; 40 CFR 52.670 (d), 8/14/06]

16.11 **Initial Performance Test and Annual Compliance Test**

The permittee shall conduct performance tests to demonstrate that the pollution control equipment is capable of achieving pollutant-specific emission limits. The initial performance test, and any subsequent compliance tests conducted to demonstrate compliance, shall be performed in accordance with IDAPA 58.01.01.157, General Provision F of PTC No. 077-00006, dated June 15, 2001, and the requirements outlined in the following subsections. The annual compliance tests shall be conducted within 13 months after the previous initial performance or compliance test.

General Provision F of PTC No. 077-00006 reads as follows:

"If emission testing is specified, the permittee must schedule such testing within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup. Such testing must strictly adhere to the procedures outlined in IDAPA 58.01.01.157 and shall not be conducted on weekends or state holidays without prior written DEQ approval. Testing procedures and specific time limitations may be modified by DEQ by prior negotiation if conditions warrant adjustment. DEQ shall be notified at least 15 days prior to the scheduled compliance test. Any records or data generated as a result of such compliance test shall be made available to DEQ upon request."

The maximum allowable operating rate shall be limited to 120% of the average operating rate attained during any performance test period, for which a test protocol has been granted prior 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. 077-00006, 6/15/01; 40 CFR 52.670 (d), 8/14/06]

16.11.1 **Sulfur Dioxide, Sulfuric Acid Mist, and Visible Emissions**

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 SO_2. The performance tests shall also 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 H_2SO_4.

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 SO_2, acid mist, and visible emission standards in Permit Conditions 16.1, 16.2, and 16.6 as follows:

(1) The emission rate (E) of acid mist or SO_2, shall be computed for each run using the following equation:
$E = (CQ_{sd}) / (PK)$

Where:

E = emission rate of acid mist or SO_2 kg/metric ton (lb/ton) of 100% H_2SO_4 produced.
C = concentration of acid mist or SO_2, g/dscm (lb/dscf).
Q_{sd} = volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).
P = production rate of 100% H_2SO_4, 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 SO_2 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% H_2SO_4 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 O_2 concentration and, if required, CO_2 concentration.

(ii) The SO_2 or acid mist emission rate is calculated as described in Permit Condition 16.10(d), substituting the acid mist concentration for C's as appropriate.

[40 CFR 60.85; PTC No. 077-00006, 6/15/01; 40 CFR 52.670 (d), 8/14/06]

16.11.2 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 concentration of NO_x.

[PTC No. 077-00006, 6/15/01; 40 CFR 52.670 (d), 8/14/06]

16.11.3 A performance test shall be conducted to evaluate total PM_{10} from the sulfuric acid plant No. 300 and to establish an emissions factor for setting an emissions limit. 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 concentration of PM_{10}.

[PTC No. 077-00006, 6/15/01; 40 CFR 52.670 (d), 8/14/06]

16.11.4 The performance test for NH_3 shall be conducted in accordance with IDAPA 58.01.01.157.

[PTC No. 077-00006, 6/15/01; 40 CFR 52.670 (d), 8/14/06]

16.11.5 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.

[PTC No. 077-00006, 6/15/01; 40 CFR 52.670 (d), 8/14/06]

16.11.6 The production rate in pounds per hour and tons per day and the operating parameters shall be recorded during each performance test.

[PTC No. 077-00006, 6/15/01; 40 CFR 52.670 (d), 8/14/06]

16.12 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.

[IDAPA 58.01.01.322.07, 5/1/94; PTC No. 077-00006, 6/15/01]

16.13 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. 077-00006, 6/15/01]

Reporting Requirements

16.14. The permittee shall submit reports of the results of the performance tests required in Permit Condition 16.11, including all required process data, to DEQ within 30 days after the date on which the performance tests are concluded.

[PTC No. 077-00006, 6/15/01]

16.15 Reserved

16.16 Excess Emissions

The person responsible for, or in charge of a facility during, an excess emissions event shall, with all practicable speed, initiate and complete appropriate and reasonable action to correct the conditions causing such excess emissions event, to reduce the frequency of occurrence of such events, to minimize the amount by which the emissions standard is exceeded, and notify the Department (IDAPA 58.01.01.132). The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the plant, any malfunction of the air pollution control equipment, and/or any periods during which the continuous emissions monitoring system is inoperative. Excess emissions reports shall be submitted to the Department in accordance with IDAPA 58.01.01.133 through 136 and to the Environmental Protection Agency in accordance with 40 CFR 60.7(b), (c), (d), and (e).

[PTC No. 077-00006, 6/15/01]

16.17 NSPS Notifications

The permittee shall follow the notification and recordkeeping requirements for NSPS as outlined in 40 CFR 60.7. Notification requirements to EPA include, but are not limited to:

- Notification of the date reconstruction commenced, postmarked no later than thirty (30) days after such date.

- Notification of the actual date of initial startup of the modified facility, postmarked no later than fifteen (15) days after such date.
- Notification of any physical or operational change which may increase the emissions rate of any regulated pollutant, postmarked at least sixty (60) days before the change occurs.
- Notification of the date upon which demonstration of the continuous monitoring system performance commences.
- Notification of the anticipated date for conducting the opacity observations.
- Notification of any performance tests at least thirty (30) days prior to the test.

[PTC No. 077-00006, 6/15/01]

40 CFR 64 - Compliance Assurance Monitoring for Compliance with Emissions Limits of SO_2, PM/PM_{10}, and Sulfuric Acid Mist of No. 300 Sulfuric Acid Plant Stack

16.18 **Approving Monitoring Requirements in Accordance with 40 CFR 64.6**

16.18.1 For SO_2 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 16.10, the SO_2 continuous emissions monitoring requirement.

[40 CFR 64.3(d)]

16.18.2 For sulfuric acid mist emissions limits, the permittee shall comply with the approved monitoring requirements in Table 16.3 in accordance with 40 CFR 64.3(a)(1)&(2), 64.6(a)&(c).

Table 16.3 MONITORING REQUIREMENTS FOR SULFURIC ACID MIST FROM NO. 300 SULFURIC ACID PLANT STACK

	Indicator No.1
I. Indicator Measurement Approach	Mist eliminator operation Mist eliminator inspection every two years.
II. Indicator Range	An excursion is defined as the discovery of failure or degradation of the mist eliminator structure or excessive clogging. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria	
A. Data Representativeness	The mist eliminators will be visually inspected for deterioration.
B. Verification of Operational Status	NA
C. *QA/QC* Practices and Criteria	Trained personnel will perform the inspections.
D. Monitoring Frequency	The inspections will be performed every two years.
Data Collection Procedures	Results of inspections and maintenance activities performed on mist eliminator are recorded in mist eliminator maintenance log.
Averaging Period	None

[40 CFR 64.3(a)(1)&(2), 64.6(a)&(c)]

16.18.3 For PM/PM_{10} emissions limits, the following is the approved monitoring requirements and compliance schedule in accordance with 40 CFR 64.4 and 64.6

- Within two months of, or within 12 months prior to the permit issuance, the permittee shall conduct performance test as specified in Permit Condition 16.11.

[40 CFR 64.3(a)(2), 40 CFR 64.4 (d), 64.4(e), 64.6(b) and 64.6(e)(2)]

- As discussed in 40 CFR 64.4(c)(1), performance test(s) generally shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions. Such data may be supplemented, if desired, by engineering assessments and manufacturer's recommendations to justify the indicator ranges (or, if applicable, the procedures for establishing such indicator ranges.) Emission testing is not required to be conducted over the entire indicator

range or range of potential emissions.

[40 CFR 64.4(c)(1)]

- Within three months of the permit issuance, the permittee shall identify indicators and develop indicators' ranges for DynaWave reverse-jet scrubber and Ammsox packed-bed ammonia scrubber and provide these identified indicators and indicators' ranges to DEQ for approval.

[40 CFR 64.6(b)]

- Within 180 days of the permit issuance, DEQ will either approve or disapprove the proposed indicators' ranges. The permittee is in violation of 40 CFR 64.4(e) if DEQ disapproved an indicator range by then.

[40 CFR 64.4(e)]

- After the initial approval as specified in Permit Condition 16.18.3, the permittee may conduct performance test in accordance with Permit Condition 16.11, which demonstrate compliance with PM and PM_{10} emissions limits specified in Permit Condition 16.3, to revise indicator(s)' range(s). The permittee shall submit any revised indicator(s)' range(s) to DEQ for approval.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94; 40 CFR 64.6(b)]

17. EMISSIONS UNIT GROUP 15: SULFURIC ACID PLANT NO. 400

Summary Description

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

The process at sulfuric acid plant No. 400 begins with solid elemental sulfur being indirectly heated to liquid sulfur and then being dumped into underground pits. The liquid sulfur is burned in a furnace to produce SO_2. The SO_2 is oxidized to SO_3 in a converter. The SO_3 gas stream passes through an absorber unit where it is absorbed in less concentrated sulfuric acid (approximately 93%) that allows absorption of the SO_3 to form more concentrated sulfuric acid. The process up to this point is called the "single-contact process". Sulfuric acid plant No. 400 uses a "double-contact process" that passes the SO_3 gas stream through a second converter to oxidize additional SO_2 and then to the final absorber. Product sulfuric acid from the process is transferred by pipe to the product storage tanks.

Table 17.1 below describes the emission unit, emission point, and the control devices used in controlling emissions from the sulfuric acid plant No. 400.

Table 17.1 SUMMARY OF EMISSIONS UNIT, CONTROL DEVICE, AND EMISSIONS POINT

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
Sulfuric acid plant No. 400 with double-contact SO_2 removal	mist-eliminator (an inherent process equipment)	No. 400 sulfuric stack

Table 17.2 contains only a summary of the requirements that apply to the sulfuric acid plant No. 400. Specific permit requirements are listed below Table 17.2.

Table 17.2 SUMMARY OF PERMIT LIMITS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
17.1	SO_2	999 lb/3-hr period, 1,458 T/yr	Tier II Permit No. 077-00006	17.1, 17.6, 17.7, 17.8, 17.10, 17.11, 17.12, 17.13, 17.14, 17.15, & 17.16
		4 lb/T of 100% H_2SO_4 produced	40 CFR 60, Subpart H	
		2.0 lb/T of 100% H_2SO_4 produced	Consent Order, 5/29/2012	
17.2	H_2SO_4 mist	12.5 lb/hr, 54.8 T/yr	Tier II Permit No. 077-00006	17.2, 17.6, 17.7, 17.10, 17.11, 17.12, 17.13, & 17.16
		0.15 lb/T of 100% H_2SO_4 produced	40 CFR 60, Subpart H	
17.3	Opacity	10%	40 CFR 60, Subpart H	17.3, 17.6, 17.7, 17.9, 17.13 & 17.16
17.4	PM	Process weight rate	IDAPA 58.01.01.701	17.6, 17.10, 17.11.2, 17.13, 17.16, 17.7
17.5.1	PM_{10}	13.6 lb/hr, 59.6 T/yr	RACT, Consent Order 4/16/04; 40 CFR 52.670 (d), 8/14/06	
17.5.2	NO_X	9.6 lb/hr, 42.1 T/yr	RACT, Consent Order 4/16/04; 40 CFR 52.670 (d), 8/14/06	17.10, 17.11.2, 17.13, & 17.16

17.1 Emissions limits for SO_2

17.1.1 The SO_2 emissions shall not exceed 4 lb/T of 100% sulfuric acid produced and 999 pounds per each running three-hour period (whichever is more restrictive.) In addition, SO_2 emissions shall not exceed 1,458 T/yr. The ton-per-year emission rate shall be determined by multiplying the actual, or allowable (if actual is not available), pound-per-hour emissions by the actual hours per year the process(es) venting to this stack operate(s).

[40 CFR 60.82(a); Tier II Permit No. 077-00006, 12/3/99; 40 CFR 52.670 (d), 8/14/06]

17.1.2 The SO_2 emissions from the No. 400 sulfuric plant stack shall not exceed 2.0 lb/T of 100% sulfuric acid produced on a 12-month rolling average basis.

[Consent Order 5/29/2012]

17.2 Sulfuric acid mist emissions shall not exceed 0.15 lb/T of 100% sulfuric acid produced and 12.5 lb/hr (whichever is more restrictive). Sulfuric acid mist emissions shall also not exceed 54.8 T/yr. The ton-per-year emission rate shall be determined by multiplying the actual, or allowable (if actual is not available), pound-per-hour emissions by the actual hours per year the process(es) venting to this stack operate(s).

[40 CFR 60.83(a)(1); Tier II Permit No. 077-00006, 12/3/99]

17.3 Visible emissions shall not exhibit 10% opacity, or greater, 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, and malfunction.

[40 CFR 60.83(a)(2), 40 CFR 60.85(b)(4), 40 CFR 60.11(c); Tier II Permit No. 077-00006, 12/3/99]

17.4 No person shall emit PM to the atmosphere from any process or process equipment commencing operation on or after October 1, 1979, 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.

a. If PW is less than 9,250 lb/hr,

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

b. 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]

17.5 Requirements of reasonably available control technology (RACT) for PM_{10} and NO_X

17.5.1 Emissions of PM_{10} from the No. 400 sulfuric acid plant stack shall not exceed:

- 13.6 lb/hr, based on 24-hour average
- 59.6 tons per any consecutive 12-month period

[Consent Order 4/16/04; 40 CFR 52.670 (d), 8/14/06]

17.5.2 Emissions of NO_X from the No. 400 sulfuric acid plant stack shall not exceed:

- 9.6 lb/hr , based on 24-hour average
- 42.1 tons per any consecutive 12-month period

[Consent Order 4/16/04; 40 CFR 52.670 (d), 8/14/06]

Operating Requirements

17.6 The production rate of sulfuric acid plant No. 400 processes shall be determined during the tests required in Permit Condition 17.11. The maximum production during the following year shall not exceed 105% of the rate achieved during the tests unless Permit Conditions 17.6.1 through 17.6.5 are met.

[Tier II Permit No. 077-00006, 12/3/99]

17.6.1 The SO_2 monitor is calibrated at least once every 24 hours using certified test gases, one of which has an SO_2 concentration equal to or less than the expected stack gas SO_2 concentration, and one of which has an SO_2 concentration greater than the expected stack gas SO_2 concentration.

[Tier II Permit No. 077-00006, 12/3/99]

17.6.2 The calibrated SO_2 monitor is cross-checked and agrees with the initial compliance test, which demonstrates SO_2 emission limit compliance.

[Tier II Permit No. 077-00006, 12/3/99]

17.6.3 Prior written approval by DEQ is received.

[Tier II Permit No. 077-00006, 12/3/99]

17.6.4 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.

[Tier II Permit No. 077-00006, 12/3/99]

17.6.5 The PM_{10}, NO_X, SO_2, and acid mist emission limits will not be violated at the requested increased emission rates.

[Tier II Permit No. 077-00006, 12/3/99; IDAPA 58.01.01.332.01, 3/19/99]

17.6.6 The maximum production rate of Sulfuric Acid Plant No.400 shall not exceed 789,579 tons of 100% sulfuric acid in any consecutive 12-calendar months.

[Consent Order 5/29/2012]

17.7 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)]

Monitoring Requirements

17.8 Emissions Monitoring for SO_2

17.8.1 Continuous Emissions Monitoring

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

(b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each eight-hour period as follows:

$$CF = k[(1.000 - 0.015r) / (r - s)]$$

Where:

CF = conversion factor (kg/metric ton per ppm, lb/ton per ppm).
k = constant derived from material balance. For determining CF in metric units, k = 0.0653. For determining CF in English units, k = 0.1306.
r = percentage of sulfur dioxide by volume entering the gas converter. Appropriate corrections must be made for air injection plants subject to the Administrator's approval.
s = percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under paragraph (a) of this section.

(c) The owner or operator shall record all conversion factors and values under paragraph (b) of this section from which they were computed (i.e., CF, r, and s).

(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 SO_2 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 SO_2, O_2, and CO_2 (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 SO_2 monitor shall be as specified in paragraph (b) of this section. The span value for CO_2 (if required) shall be 10% and for O_2 shall be 20.9% (air). A conversion factor based on process rate data is not necessary. Calculate the SO_2 emission rate as follows:

$$E_s = (C_s S) / [0.265 - (0.126\ \%O_2) - (A\ \%CO_2)]$$

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}

[40 CFR 60.84(a), (b), (c), and (d); Tier II Permit No. 077-00006, 12/3/99; 40 CFR 52.670 (d), 8/14/06]

17.8.2 Monitoring and Recordkeeping

The permittee shall use CEMS data collected in accordance with 40 CFR Part 60, Subpart H (i.e., Permit Condition 17.8.1) to demonstrate compliance with the SO_2 emissions limit in Permit Condition 17.1.2.

The permittee shall monitor and record SO_2 emissions from the No.400 sulfuric acid plant stack:

- in pounds per ton of 100% sulfuric acid produced on a three-hour average basis
- in pounds per ton of 100% sulfuric acid produced on a 12-month rolling average basis.

[Consent Order 5/29/2012]

17.9 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.

[IDAPA 58.01.01.322.07, 5/1/94]

17.10 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.

[Consent Order 4/16/04, Consent Order 5/29/2012]

Performance Tests and Compliance Procedures

17.11 Performance Test

17.11.1 For SO_2 and H_2SO_4 mist

Annual SO_2 and H_2SO_4 mist emissions tests shall be performed. All emission tests shall be performed at the process equipment's maximum operating rate.

[Tier II Permit No. 077-00006, 12/3/99; 40 CFR 52.670 (d), 8/14/06]

(a) 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 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 paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the SO_2, acid mist, and visible emission standards as follows:

(1) The emission rate (E) of acid mist or SO_2, shall be computed for each run using the following equation:

$$E = (CQ_{sd}) / (PK)$$

Where:

E = emission rate of acid mist or SO_2 kg/metric ton (lb/ton) of 100% H_2SO_4 produced.
C = concentration of acid mist or SO_2, g/dscm (lb/dscf).
Q_{sd} = volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).
P = production rate of 100% H_2SO_4, 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 SO_2 concentrations (C's) and the volumetric flow rate (Q_{sd}) 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% H_2SO_4 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 O_2 concentration and, if required, CO_2 concentration.

(ii) The SO_2 or acid mist emission rate is calculated as described in Permit Condition 17.8, substituting the acid mist concentration for C's as appropriate.

[40 CFR 60.8 and 60.85; Tier II Permit No. 077-00006, 12/3/99; 40 CFR 52.670 (d), 8/14/06]

17.11.2 For PM_{10} and NO_X

At least once every five years, the permittee shall conduct a performance test to demonstrate compliance with the emissions limits specified in Permit Condition 17.5 in accordance with Permit Condition 2.10. After the initial performance test conducted within six-month 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 one year of the test date.

[IDAPA 58.01.01.322.06, 5/1/94]

17.11.3 SO_2 Testing Required by Consent Order

By October 4, 2012, the permittee shall conduct performance tests in accordance with IDAPA 58.01.01.157 to demonstrate that the No.400 Sulfuric Acid Plant is capable of achieving the established emissions limit in the consent order as specified in Permit Condition 17.1.2.

[Consent Order 5/29/2012]

Reporting Requirements

17.12 For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions shall be defined as all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average SO_2 emissions exceed the applicable standards in Permit Condition 17.1.

[40 CFR 60.84(e)]

17.13 The result of all emission tests, visible emission data, and cylinder gas audits on the CEMS shall be reported to DEQ in the quarterly report. The quarterly report shall be received by DEQ no later than 30 days after each calendar quarter. The CEMS data and the production rates determined during the tests shall be reported to DEQ with the emission test data.

[Tier II Permit No. 077-00006, 12/3/99]

17.14 All three-hour block average SO_2 emissions shall be reported in a quarterly report. The quarterly report shall be received by DEQ no later than 30 days after each calendar quarter.

[Tier II Permit No. 077-00006, 12/3/99]

17.15 All repairs or changes to the SO_2 CEMS, and any calibration problems, shall be reported within seven days and in the quarterly report.

[Tier II Permit No. 077-00006, 12/3/99]

17.16 The standard operating procedures (SOPs) for the sulfuric acid plant No. 400 shall be kept on site and shall be made available to DEQ representatives upon request. The permittee shall operate the sulfuric acid plant No. 400 in accordance with the SOPs.

[IDAPA 58.01.01.322.01, 3/19/99]

18. COMPLIANCE SCHEDULE

At the time of issuance of the Tier I, the permittee has compliance issues identified in Permit Condition 18.1. To resolve the issues, the permittee shall fulfill the requirements in this section.

Table 18.1. COMPLIANCE SCHEDULE

Permit Conditions	Milestone	Deadline	Documentation / Reporting
18.2.1	Submit a complete PTC application	Within 180 days after the issuance of the Tier I	DEQ's Application completeness letter
18.2.2	Submit additional information	Within 15 days of receiving a written request from DEQ	---
18.2.3	Submit a supplemental application	Within 30 days of receiving written notification from DEQ	---
18.2.4	Submit a Tier I application to modify the Tier I	Prior to or within 30 days after the issuance of the PTC	Tier I application

18.1 DEQ identified the following compliance issues:

The Tier I, issued on April 5, 2004, requires the permittee to submit a permit application no later than September 30, 2005 to revise PM_{10} emissions limits to reflect the performance testing results using EPA test Methods 5 and 202 or Methods 201A and 202. The permittee submitted the application on September 30, 2005. However, the application requested DEQ to modify the Tier I operating permit to change PM_{10} testing method specified in Tier I from EPA test Methods 5 and 202 to Method 5. The PM_{10} compliance issues remain unresolved.

The requirement to revise PM_{10} emissions limits applies to the following plants/processes:

- Ammonium Sulfate plant contained in the Tier II issued on December 3, 1999.
- Granulation No. 1 Process contained in the Tier II issued on December 3, 1999.
- Granulation No.2 Process contained in the Tier II issued on December 3, 1999
- Granulation No.3 Process contained in the PTC issued on December 12, 2001.
- Phosphoric Acid Manufacturing Plants contained in the Tier II issued on December 3, 1999.
- Reclaim Cooling Tower Cells Plant (Direct Contact) /Evaporative Cooling Towers contained in the Tier II issued on December 3, 1999.

Since 2004, Simplot has been conducting source test using EPA test Methods 5 and 202 as required by 2004 Tier I. The source test results show that only emissions from Phosphoric Acid Manufacturing Plants and Reclaim Cooling Tower Cells Plant are higher than the existing PM_{10} emissions limits in the Tier II issued on December 3, 1999.

[IDAPA 58.01.01.322.10, 4/5/00]

18.2 To resolve the compliance issues identified in Permit Condition 18.1, the permittee shall revise the PM_{10} hourly emissions limits and the corresponding PM_{10} annual emissions limits by completing the following requirements:

18.2.1 Submit a complete PTC application to revise the PM_{10} hourly emissions limits and the corresponding PM_{10} annual emissions limits in accordance with IDAPA 58.01.01.200 through 228 within 180 days after the issuance of the Tier I.

18.2.2 In the event that DEQ requires additional information to issue the PTC, the permittee shall submit the requested information to DEQ within 15 days of receiving a written request from DEQ.

18.2.3 If through the development of the PTC, it is determined that the facility should have obtained a PTC or a PTC modification for any other source or sources at the facility, the permittee shall submit a supplemental application that addresses the requirements for the PTC(s) within 30 days of receiving written notification from DEQ.

18.2.4 The permittee shall submit an application to request a Tier I modification prior to or within 30 days after the issuance of the PTC required in Permit Condition 18.2.1. The Tier I shall be modified to incorporate all applicable requirements in the PTC required in Permit Condition 18.2.1 in accordance with the Rules.

[IDAPA 58.01.01.322.10, 4/5/00]

18.3 In the event that the permittee withdraws or DEQ denies the PTC application required in Permit Condition 18.2.1, then the permittee shall be in violation of this Tier I.

[IDAPA 58.01.01.322.10, 4/5/00]

18.4 The application submittal deadlines set forth in the compliance scheduled may be extended if the permittee clearly demonstrates that additional time is needed to collect new data for submittal of a complete application. Extension requests, with complete information to justify the request, must be submitted in writing to DEQ no later than the midpoint of the milestone timeline. The deadlines may be extended for up to one year through written authorization from DEQ.

[IDAPA 58.01.01.322.10, 4/5/00]

18.5 Until such time that a modified Tier I required in Permit Condition 18.2.4 is issued, the permittee shall submit a progress report every six months to DEQ stating when each of the milestones and compliance with each condition in the compliance schedule were or will be achieved, and an explanation of why any dates were not or will not be met and a detailed description of any preventative or corrective measures undertaken by the permittee.

[IDAPA 58.01.01.322.10, 4/5/00]

18.6 This schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

[IDAPA 58.01.01.322.10, 4/5/00]

19. TIER I OPERATING PERMIT GENERAL PROVISIONS

General Compliance

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)]

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)]

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

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)]

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

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

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)]

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

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

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, 4/2/08; 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), and 70.7(d), (e)]

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 CAA, 42 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, 7/1/02; IDAPA 58.01.01.209.05, 4/11/06; 40 CFR 70.4(b)(14) and (15)]

Federal and State Enforceability

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) and (2)]

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

14. Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:

    a. Enter upon the permittee's premises where a Tier I source is located or emissions related activity is conducted, or where records are kept under conditions of this permit;

    b. Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;

    c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

    d. As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108; IDAPA 58.01.01.322.15.l, 5/1/94; 40 CFR 70.6(c)(2)]

New Applicable Requirements

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

16. The owner or operator of a Tier I source 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

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. a. The owner or operator of a Tier I source 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 owner or operator 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)]

b. 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

19. 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:

a. Such applicable requirements are included and are specifically identified in the Tier I operating permit; or

i. 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.

b. 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).

c. Nothing in this permit shall alter or affect the following:

i. Any administrative authority or judicial remedy available to prevent or terminate emergencies or imminent and substantial dangers;

ii. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

iii. The applicable requirements of the acid rain program, consistent with 42 U.S.C. Section 7651(g)(a); and

iv. 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, 325.01, 5/1/94; IDAPA 58.01.01.325.02, 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

20. a. For each applicable requirement for which the source is not in compliance, the permittee shall comply with the compliance schedule incorporated in this permit.

b. 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.

c. 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.

d. 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

21. The permittee shall submit compliance certifications during the term of the permit for each emissions unit to DEQ and the EPA as follows:

a. The compliance certifications for all emissions units shall be submitted annually from December 24 to December 23 or more frequently if specified by the underlying applicable requirement or elsewhere in this permit by DEQ.

b. 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;

c. 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):

i. The identification of each term or condition of the Tier I operating permit that is the basis of the certification;

ii. The identification of the method(s) or other means used by the owner or operator 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;

iii. 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

iv. Such information as the Department may require to determine the compliance status of the emissions unit.

d. 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

22. 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

23. 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

24. 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 December 24 to June 23 and June 24 to December 23. 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

25. 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

26. 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

27. In accordance with IDAPA 58.01.01.332, any sudden and reasonably unforeseeable event beyond the control of the owner or operator which requires immediate corrective action to restore normal operation and which meets the definition of 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; IDAPA 58.01.01.008.06, 4/5/00; 40 CFR 70.6(g)]