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 levies. Gypsum slurry is collected in one cell while the other cells are allowed to dry, leaving gypsum. 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	Monitoring and Record-keeping 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 demonstrate compliance with the total fluoride emissions limits in Permit Condition 10.1, and PM_{10} emissions limits in Permit Condition 10.2 using method specified in Simplot's June 29, 2000 Tier I/II application, Appendix D, Air Emissions Inventory.

[IDAPA 58.01.01.06, 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) Each owner or operator of a phosphogypsum stack must maintain records for each stack documenting the procedure used to verify compliance with the flux standard in Permit Condition 10.3, 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 correctness of the determination made concerning compliance of the stack with flux standard.

(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: RESERVED

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 a 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.

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	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[1]: SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Operating, Monitoring and Record-keeping Requirements
12.1	Total fluoride	1.3 lb/hr, 4.71 T/yr	Tier II Permit No. 077-00006	12.6 through 12.12, 12.15 through 12.20
		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, 12.13
		Process weight rate	IDAPA 58.01.01.702	
12.3	PM_{10}	2.77 lb/hr, 12.13 T/yr	Tier II Permit No. 077-00006	12.6, 12.7, 12.13
12.4	Total reduced sulfur	8.61 lb/hr, 37.7 T/yr	Tier II Permit No. 077-00006	12.4, 12.14
12.5	Fugitive PM_{10}	0.01 lb/hr, 0.03 T/yr	Tier II Permit No. 077-00006	12.5

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

Permit Limits / Standard Summary

12.1 Total Fluorides

12.1.1 For the wet process phosphoric acid process line, the permittee shall comply with the total fluorides standard of 0.020 lb/T of equivalent P_2O_5 feed.

[40 CFR 63.602(a)]

12.1.2 Total particulate and gaseous fluoride 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]

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 Simplot's June 29, 2000 Tier I/II application Appendix D, Air Emissions Inventory.

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

Operating Requirements

12.6 On or after the date on which the performance test required to be conducted by 40 CFR 63.7 and Permit Condition 12.12 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 Permit Condition 12.11(1) or (2).

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

12.7 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]

Monitoring Requirements

12.8 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)]

12.9 Each owner or operator of a new or existing wet-process phosphoric acid process line or 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 Permit Condition 12.8 and then by proceeding according to Permit Condition 12.12.2(3).

[40 CFR 63.605(b)(1)]

12.10 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)]

12.11 Following the date on which the performance test required in Permit Condition 12.12 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 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 Permit Condition 12.12.2(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 Permit Condition 12.17(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 Permit Condition 12.12.2(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 Permit Condition 12.12.2(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)]

Compliance Tests and Compliance Provisions

12.12 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 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 this permit condition.

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

12.12.1 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 this Permit Condition, except as provided in 40 CFR 63.7(f).

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

12.12.2 Each owner or operator of a new wet-process phosphoric acid process line or superphosphoric acid process line shall determine compliance with the applicable total fluorides standard in Permit Condition 12.1.1, 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 (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:

$P = M_p \quad R_p$

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 $Ca_3(PO_4)_2$, 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 Permit Condition 12.11(1) or (2), the owner or operator shall use the monitoring systems in Permit Condition 2.10 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 Permit Condition 12.11(1) or (2).

[40 CFR 63.606(c)]

12.13 PM and PM_{10} Performance Test

12.13.1 The permittee shall conduct compliance tests within 12 months of, or 12 months prior to, December 24, 2002 to demonstrate compliance with the PM and PM_{10} hourly emissions limits required in Permit Conditions 12.2 and 12.3. After the first compliance test, 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.

During calendar years 2003, 2004, and 2005, compliance with the PM_{10} emissions limit in Permit Condition 12.3 shall be determined by conducting a Method 5 performance test on the belt filter scrubber stack. The PM_{10} fraction of the PM emission rate determined during the test shall be determined by multiplying the PM emission rate by a 0.82 conversion factor.

During calendar years 2004 and 2005, Method 5 and 202 performance tests shall be conducted on the belt filter scrubber stack in addition to the Method 5 test. All performance testing shall be conducted in accordance with Permit Condition 2.16.

No later than September 30, 2005, Simplot shall submit a permit application to revise the PM_{10} emissions limits to reflect the results of the Method 5 and 202 performance tests. The permit application shall contain justification for each emission limit proposed. Once DEQ issues a permit with revised PM_{10} emissions limits, compliance with Permit Condition 12.3 shall be determined by source testing using Methods 5 and 202 on the belt filter scrubber stack.

12.13.2 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.

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

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

12.14 The permittee shall conduct a one-time compliance test during 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]

Notification, Record-keeping, and Reporting Requirements

12.15 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)]

12.16 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)]

12.17 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

12.18 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

12.19 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 Permit Conditions 12.6, 12.8, 12.9, 12.10, 12.11, and 12.12 have been met.

[40 CFR 63.610]

Applicability of 40 CFR 63, General Provisions

12.20 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.

[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 Record-keeping Requirements
13.1	PM	3.12 lb/hr, 13.65 T/yr	Tier II Permit No. 077-00006	13.2
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 Record-keeping

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 from 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 involves cooling process water from the manufacturing plants 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.

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	Exhaust fans
West reclaim cooling tower	909	Mist-eliminator	Exhaust fans
East reclaim cooling tower	910	Mist-eliminator	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 Record-keeping Requirements
14.1	PM	Process weight rate	IDAPA 58.01.01.701	None
		17.65 lb/hr, 77.31 T/yr for each cell	Tier II Permit No. 077-00006	14.5, 14.6, 14.8
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, 14.6, 14.7, 14.8
14.4	Inlet streams	No effluent from air pollutant control scrubber	40 CFR 63, Subpart AA	14.10
14.5	Mist-eliminator	Present during operation of reclaim cooling towers.	Tier II Permit No. 077-00006	14.5

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 Based on the process weight rate equation the limit is 40.7 lb/hr per cell using a flowrate of 3,750 gpm per cell (30,000 gpm to the cooling tower). Because Condition 14.1.1 is more stringent, compliance with Condition 14.1.1 shall be deemed compliance with Condition 14.1.2.

[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]

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 control device at all times during operation of the reclaim cooling towers.

[IDAPA 58.01.01.322.01, 3/19/99]

Monitoring and Record-keeping Requirements

14.6 PM and PM_{10} Compliance Tests:

14.6.1 The permittee shall conduct a compliance test within 12 months of, or 12 months prior to, December 24, 2002 to demonstrate compliance with the PM and PM_{10} hourly emissions limits in Permit Conditions 14.1 and 14.2.

During calendar years 2003 and 2004, compliance with the PM_{10} emissions limit in Permit Condition 14.2 shall be determined by conducting a Method 5 compliance test on one of the cooling tower cells in each of the three reclaim cooling towers. During calendar year 2005, six cooling tower cells will be tested. The PM_{10} fraction of the PM emission rate determined during the test shall be determined by multiplying the PM emission rate by a 0.20 conversion factor.

During calendar years 2004, Method 5 and 202 tests shall be conducted on one of the cooling tower cells in each of the three reclaim cooling towers in addition to the Method 5 test. During calendar year 2005, six cooling cells will be tested. All compliance testing shall be conducted in accordance with Permit Condition 2.16.

No later than September 30, 2005, Simplot shall submit a permit application to revise the PM_{10} emissions limits to reflect the results of the Method 5 and 202 tests. The permit application shall contain justification for each emission limit proposed. Once DEQ issues a permit with revised PM_{10} emissions limits, compliance with Permit Condition 14.2 shall be determined by annual source testing using Methods 5 and 202 on two of the cooling tower cells in each of the three reclaim cooling towers. The annual source test shall be conducted as specified in Permit Condition 14.8.

[IDAPA 58.01.01.322.06, 5/1/94; Tier II Permit No. 077-00006, 12/3/99; (Settlement Agreement, 6/10/04)]

14.6.2 Reserved.

14.6.3 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]

14.7 Total Fluorides Compliance Tests

14.7.1 The permittee shall conduct compliance tests within 12 months of, or 12 months prior to, December 24, 2002 to demonstrate compliance with the total fluorides hourly emissions limit in Permit Condition 14.3.

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

14.7.2 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.

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

14.7.3 After the first compliance test is fulfilled as required in this permit condition, the permittee shall conduct a compliance test once per annum to demonstrate compliance with the hourly total fluorides emissions limit in Permit Condition 14.3 as specified in Permit Condition 14.8.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00; Tier II Permit No. 077-00006, 12/3/99]

14.8 With respect to the compliance testing in Permit Condition 14.6 and 14.7, the permittee shall, in 2003 and 2004, test one of the cooling tower cells in each of the three reclaim cooling towers. In and after 2005, 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.

[(Settlement Agreement, 6/10/04; Tier II Permit No. 077-00006, 12/3/99]

14.9 Reserved.

14.9.1 Reserved.

14.9.2 Reserved.

14.9.3 Reserved.

14.10 The permittee shall identify the entire flow path of all scrubber output and submit it to DEQ on or before the issuance of this permit.

[IDAPA 58.01.01.322.01, 3/19/99]

15. EMISSIONS UNIT GROUP 13: SUPERPHOSPHORIC ACID PLANT / SUPERPHOSPHORIC ACID PROCESS LINE

Summary Description

The following is a narrative description of the SPA (superphosphoric acid) plant regulated in this Tier I operating permit. This description is for informational purposes only.

In the SPA process, merchant grade phosphoric acid (0-54-0), 54% P_2O_5 acid, from the wet-phosphoric acid production line is further evaporated to the SPA concentration (0-69-0) of approximately 69% P_2O_5. Filtration of suspended solids and chemical oxidation of organic material are ancillary steps in SPA production. A description of the SPA process is included below with discussion of air pollutant emissions and control devices.

- Acid evaporation - Incoming feed phosphoric acid is vacuum-evaporated in equipment similar to the phosphoric acid plant evaporators. The vaporization of constituent compounds, such as water, concentrates the remaining phosphoric acid into SPA. The vapors extracted in this process are condensed in a non-contact condenser. The remaining vapors are processed through the primary control scrubber to capture fluoride emissions prior to discharge to the atmosphere. The primary control scrubber effluent is sent through the gypsum thickener and finally to the gypsum stack.
- Acid oxidation - SPA is transported to an oxidation-reaction vessel where residual impurities are oxidized by HNO_3. The oxidation of the impurities clarifies the SPA and it takes on a brilliant green color inherent of phosphoric acid. The NO_x produced during oxidation is collected, pressurized, and then extracted from the effluent stream in extended absorption scrubbers, two in series. The extended absorption scrubber effluent is finally processed through the primary control scrubber prior to discharge to the atmosphere.
- Acid aging and cooling - SPA is allowed to cure in aging tanks prior to cooling in heat exchangers. The aging allows time for residual reactions to go to completion.
- Pressure-leaf filter - Cooled SPA solution is delivered to a pressure-leaf filter where the acid is separated from the cake under pressure. The liquid SPA is delivered to product storage.

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 absorption and 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 [1] SUMMARY OF EMISSIONS LIMITS

Permit Conditions	Parameter	Permit Limit/ Standard Summary	Applicable Requirements Reference	Operating, Monitoring and Record-keeping Requirements
15.1.1	Fluorides	0.010 lb/T P_2O_5 feed	40 CFR 63.602(b)(1)	15.4 to 15.13, 15.17 to 15.22
15.1.2	Fugitive fluorides	0.37 lb/hr, 1.62 T/yr	Tier II Permit No. 077-00006	15.1.2
15.2	NO_x	0.10 lb/hr, 0.4 T/yr	Tier II Permit No. 077-00006	15.4, 15.5, 15.6
15.3	CO	4.2 lb/hr, 18.3 T/yr	Tier II Permit No. 077-00006	15.15

[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 Total Fluorides

15.1.1 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), 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)]

15.1.2 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, using the method specified in SIP inventory, which can be found in Simplot's June 29, 2000 Tier I/II application, Appendix D.

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

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]

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]

Operating Requirements

15.4 On or after the date on which the performance test required to be conducted by 40 CFR 63.7 and Permit Condition 15.12 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 Permit Condition 15.10(1) or (2).

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

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

[IDAPA 58.01.01.322.01, 3/19/99]

15.6 Maintenance on the extended-absorber scrubber 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]

Monitoring Requirements

15.7 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)]

15.8 Each owner or operator of a new or existing wet-process phosphoric acid process line or 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 Permit Condition 15.7 and then by proceeding according to Permit Condition 15.13(3).

[40 CFR 63.605(b)(1)]

15.9 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)]

15.10 Following the date on which the performance test required in Permit Condition 15.12 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 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 Permit Condition 15.13(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 Permit Condition 15.19(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 Permit Condition 15.13(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 Permit Condition 15.13(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)]

15.11 The permittee shall conduct a weekly visible emissions inspection of the scrubber stack in accordance with Permit Condition 2.8.

[IDAPA 58.01.01.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]

Compliance Tests and Compliance Provisions

15.12 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 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 Permit Conditions 15.12 and 15.13.

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

15.12.1 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 Permit Condition 15.13, except as provided in 40 CFR 63.7(f).

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

15.13 Each owner or operator of a new or existing wet-process phosphoric acid process line or superphosphoric acid process line shall determine compliance with the applicable total fluorides standards in Permit Condition 15.1, 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 (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 Permit Conditions 15.7 and 15.8 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 $Ca_3(PO_4)_2$, 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 Permit Condition 15.10(1) or (2), the owner or operator shall use the monitoring systems in Permit Condition 15.9 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 Permit Condition 15.10(1) or (2).

[40 CFR 63.606(c)]

15.14 Reserved.

15.15 On or before December 31, 2004, the permittee shall either conduct a compliance test to measure CO emissions from the SPA extended absorption scrubber stack utilizing a pollutant-specific method promulgated by the EPA, a DEQ-approved alternative, or use DEQ's emission estimation methods used in the analysis of the "Extended Absorption Scrubber," PTC No. 077-00006, dated April 17, 1990, to demonstrate compliance with the CO limit in Permit Condition 15.3.

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

15.16 During a week that a compliance test required by Permit Conditions 15.12, and 15.15 is scheduled, the weekly visible emissions evaluation shall be executed during the compliance test. Results of the visible emissions evaluation shall be submitted with the compliance test report.

[IDAPA 58.01.01.625, 4/5/00; Tier II Permit No. 077-00006, 12/3/99]

Notification, Recordkeeping, And Reporting Requirements

15.17 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, as contained in Appendix A.

[40 CFR 63.607(a)]

15.18 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)]

15.19 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

15.20 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

15.21 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 Permit Conditions 15.4, 15.7, 15.8, 15.9, 15.10, 15.12, and 15.13 have been met.

[40 CFR 63.610]

Applicability of MACT General Provisions

15.22 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 63.608]

16. EMISSIONS UNIT GROUP 14: SULFURIC ACID PLANT NO. 300

Summary Description

The following is a narrative description of the sulfuric acid plant No. 300 processes 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 when elemental sulfur is indirectly heated to liquefy the sulfur that is 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%) which allows absorption of the SO_3 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.

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 the 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 Record-keeping Requirements
16.1	SO_2	170 lb/hr--three hour average, 750 T/yr; 4 lb/T of 100% H_2SO_4 produced	40 CFR 60.82; PTC No. 077-00006	16.8, 16.9, 16.10, 16.11, 16.13, 16.14
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	40 CFR 60.83(1); PTC No. 077-00006	16.11, 16.13, 16.14
16.3	PM	Process weight rate	IDAPA 58.01.01.702	None
	PM_{10}	A source test is required to determine the emission rate.	PTC No. 077-00006	16.8, 16.9, 16.11, 16.13, 16.14
16.4	NO_x	64 T/yr	PTC No. 077-00006	16.8, 16.11, 16.13
16.5	NH_3	2.5 lb/hr, 11 T/yr	PTC No. 077-00006	16.8, 16.9, 16.11, 16.13
16.6	Opacity	10% for more than six-minute average	40 CFR 60.83(2); PTC No. 077-00006	16.11, 16.12, 16.14
16.7	Visible emissions	20%, no fugitive emissions leaving property boundary	IDAPA 58.01.01.625; PTC No. 077-00006	16.12, 16.13, 16.14
16.8	100% H_2SO_4 Throughput	1,750 T/day – rolling 24-hr average	PTC No. 077-00006	16.13
16.15	SO_2	Monitoring ground-level ambient SO_2 concentrations	40 CFR 52.675(b)(7); Tier II Permit No. 077-00006	17.8

Permit Limits / Standard Summary

16.1 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. Emissions of SO_2 shall not exceed 4 lb/T of 100% sulfuric acid produced.

[40 CFR 60.82; PTC No. 077-00006, 6/15/01]

16.2 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. Emissions of acid mist shall not exceed 0.15 lb/T of sulfuric acid produced, expressed as 100% H_2SO_4.

[40 CFR 60.83(1); PTC No. 077-00006, 6/15/01]

16.3 Particulate Matter

16.3.1 A source test will be required to determine the emission rate for PM_{10}. This test was conducted and documented in a report dated 12/9/02.

[PTC No. 077-00006, 6/15/01]

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 of NO_x shall not exceed 64 tons per any consecutive 12-month period.

[PTC No. 077-00006, 6/15/01]

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 Emissions from the No. 300 sulfuric acid plant stack shall not exceed 10% opacity as determined by following EPA Reference Method 9. The opacity standards set forth here shall apply at all times except during periods of startup, shutdown, and malfunction. 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(2); 40 CFR 60.11(c); PTC No. 077-00006, 6/15/01]

16.7 Visible Emission Limits

16.7.1 Emissions from the No. 300 sulfuric acid plant stack, or any other stack, vent, or functionally equivalent opening associated with the No. 300 sulfuric acid plant, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625.

[PTC No. 077-00006, 6/15/01]

16.7.2 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, J.R. Simplot 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.

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), as contained in Appendix B.

[40 CFR 60.11(d); PTC No. 077-00006, 6/15/01]

Monitoring And Record-keeping Requirements

16.10 (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:

$E_s = (C_sS) / [0.265 - (0.126\ \%O_2) - (A\ \%CO_2)]$

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 x 10[-6]
ppm (SO_2)	lb/scf	1.660 x 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]

16.11 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 6/15/01, 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]

16.11.1 <u>Sulfur Dioxide and Sulfuric Acid Mist</u>

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 paragraph (c) of this section.

(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 (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 16.10(d), substituting the acid mist concentration for C's as appropriate.

[40 CFR 60.8 and 60.85; PTC No. 077-00006, 6/15/01]

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]

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]

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]

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.

[40 CFR 60.8 and 60.85; PTC No. 077-00006, 6/15/01]

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]

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 The permittee shall comply with Permit Condition 17.8 for monitoring ground-level ambient SO_2 concentrations.

[40 CFR 52.675(b)(7); Tier II Permit No. 077-00006,12/3/99]

17. EMISSIONS UNIT GROUP 15: SULFURIC ACID PLANT NO. 400

Summary Description

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

The sulfuric acid plant No. 400 process begins when elemental sulfur is indirectly heated to liquefy the sulfur that is 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 two absorber unit where it is absorbed in less concentrated sulfuric acid (approximately 98.5%) which allows absorption of the SO_3 to form more concentrated sulfuric acid. The sulfuric acid plant No. 400 utilizes a "double-contact process" which passes the SO_2 gas stream through a final pass in the converter to oxidize to SO_3. The product sulfuric acid from the processes 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 sources.

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	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 Record-keeping Requirements
17.1	SO_2	999 lb/3-hr period, 1,458 T/yr	Tier II Permit No. 077-00006	17.5 to 17.17
		4 lb/T of 100% H_2SO_4 produced	40 CFR 60, Subpart H	
17.2	H_2SO_4 mist	12.5 lb/hr, 54.8 T/yr	Tier II Permit No. 077-00006	17.5, 17.6, 17.10, 17.11
		0.15 lb/T of 100% H_2SO_4 produced	40 CFR 60, Subpart H	
17.3	Opacity	10% for more than six-minute average	40 CFR 60, Subpart H	17.3, 17.6, 17.9 to 17.17
17.4	PM	Process weight rate	IDAPA 58.01.01.701	None

Permit Limits / Standard Summary

17.1 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]

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]

Operating Requirements

17.5 The production rate of sulfuric acid plant No. 400 processes shall be determined during the tests required in Permit Condition 17.10. The maximum production during the following year shall not exceed 105% of the rate achieved during the tests unless Permit Conditions 17.5.1 through 17.5.5 are met.

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

17.5.1 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]

17.5.2 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]

17.5.3 Prior written approval by DEQ is received.

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

17.5.4 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]

17.5.5 The 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]

17.6 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

17.7 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]

17.8 Monitoring Ground Level Ambient SO_2 Concentrations

17.8.1 The permittee shall, by September 30, 1976, install, calibrate, maintain and operate a network for continuously monitoring ground-level ambient SO_2 concentrations along with wind speed and direction in accordance with 40 CFR 52.675(b)(7).

[40 CFR 52.675(b)(7); Tier II Permit No. 077-00006, 12/3/99]

17.8.2 The permittee shall operate the SO_2 monitors in their present locations, as specified in 40 CFR 50 and 40 CFR 58. For specific methods and quality control, follow EPA's "*Quality Assurance Handbook for Air Pollution Measurement Systems*".

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

17.8.3 Annual audits of the monitor's performance will be conducted by DEQ or other auditors approved by DEQ. Audit results will be sent in writing to DEQ within 45 days after the audit and will be performed in accordance with 40 CFR 58.

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; PTC No. 077-00006, 6/15/01]

Performance Tests and Compliance Procedures

17.10 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]

17.11 (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 in Permit Conditions 17.1, 17.2, and 17.3 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 17.7, substituting the acid mist concentration for C's as appropriate.

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

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 permittee shall maintain records for five years of all ambient air pollution and meteorological monitoring data collected in the facility's vicinity.

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

17.17 As specified in the Consent Order issued by DEQ on August 9, 2001, the standard operating procedure for the sulfuric acid plant No. 400 shall be kept on site and shall be made available to DEQ representatives upon request.

[Consent Order, 8/9/01; IDAPA 58.01.01.322.01, 3/19/99]

18. COMPLIANCE SCHEDULE

The J. R. Simplot Co. - Don Siding Plant shall implement the following compliance schedule to assure compliance with the applicable requirements in the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.01, et seq. The specific elements of the compliance schedule are summarized in Table 18.1 and specified in Permit Conditions 18.2 through 18.9.

Table 18.1. COMPLIANCE SCHEDULE

Permit Conditions	Milestone	Deadline	Documentation / Reporting
18.3	Supply all necessary information as required by DEQ to complete the Simplot SO_2 SIP	Within 30 days of a request in writing by DEQ	Letter from DEQ

18.1 <u>DEQ identified the compliance issues</u>:

- Ambient air quality standards for fluorides (IDAPA 58.01.01.577.06)
- Ambient monitoring of SO_2

18.2 Reserved.

18.3 JR Simplot Co. must submit any additional information as required by DEQ, within 30 days of receiving written notification from DEQ, in order to complete the Simplot SO_2 SIP.

18.4 Reserved.

18.5 The 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]

18.6 Reserved.

18.7 Reserved.

18.8 Reserved.

18.9 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) and (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, 5/1/94; 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 §39-342A 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, 4/5/00; IDAPA 58.01.01.322.15.i, 380-386, 3/19/99; 40 CFR 70.4(b)(12), (14) and (15), and 70.7(d) and (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 USC Section 7651 through 7651c, or are modifications under Title I of the CAA, 42 USC 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. Clean Air Act Section 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, 3/19/99; IDAPA 58.01.01.209.05, 5/1/94; 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:

14.1 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;

14.2 Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;

14.3 Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

14.4 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, 3/19/99; 40 CFR 70.6(c)(2)]

New Requirements During Permit Term

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 58.01.01.525 through IDAPA 58.01.01.538.

[IDAPA 58.01.01.322.15.n, 5/1/94; 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

18.1 The owner or operator of a Tier I source shall submit an application to DEQ for a renewal of this permit at least 6 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 9 months prior to the date of expiration.

[IDAPA 58.01.01.313.03, 4/5/00; 40 CFR 70.5(a)(1)(iii)]

18.2 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:

19.1 Such applicable requirements are included and are specifically identified in the Tier I operating permit; or

19.1.1 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.

19.2 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).

19.3 Nothing in this permit shall alter or affect the following:

19.3.1 Any administrative authority or judicial remedy available to prevent or terminate emergencies or imminent and substantial dangers;

19.3.2 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;

19.3.3 The applicable requirements of the acid rain program, consistent with 42 U.S.C. Section 7651(g)(a); and

19.3.4 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, 322.15.m, 325, 5/1/94; 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

20.1 For each applicable requirement for which the source is not in compliance, the permittee shall comply with the compliance schedule incorporated in this permit.

20.2 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.

20.3 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.

20.4 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, 10, 5/1/94; 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:

21.1 Compliance certifications for all emissions units shall be submitted annually beginning 12 months from December 24, 2002, or more frequently if specified by the underlying applicable requirement or elsewhere in this permit by DEQ;

21.2 The 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;

21.3 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):

21.3.1 The identification of each term or condition of the Tier I operating permit that is the basis of the certification;

21.3.2 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 by this Tier I operating permit.

21.3.3 The status of compliance with the terms and conditions of the 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 Paragraph 21.3.2 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;

21.3.4 Such other facts as DEQ may require to determine the compliance status of the source.

21.4 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, 5/1/94; 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. All required reports must be certified in accordance with IDAPA 58.01.01.123.

[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, 3/20/97; 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, an "emergency" as defined in IDAPA 58.01.01.008., constitutes an affirmative defense to an action brought for noncompliance with such technology-based emissions limitation if the conditions of IDAPA 58.01.01.332.02 are met.

[IDAPA 58.01.01.332.01, 4/5/00; 40 CFR 70.6(g)]