AIR QUALITY **TIER I OPERATING PERMIT** **State of Idaho** **Department of Environmental Quality**	**PERMIT NO.:** T1-9507-114-1 **FACILITY ID NO.:** 077-00006 **AQCR:** 061 **CLASS:** A **SIC:** 2874 **ZONE:** 12 **UTM COORDINATE (km):** 375.6, 4751.6

1. **PERMITTEE** J.R. Simplot Co. - Don Siding Plant			
2. **PROJECT** Tier I Operating Permit			
3. **MAILING ADDRESS** P.O. Box 912	**CITY** Pocatello	**STATE** ID	**ZIP** 83204
4. **FACILITY CONTACT** Leon C. Pruett	**TITLE** Environmental, Safety, and Health Manager	**TELEPHONE** (208) 234-5370	
5. **RESPONSIBLE OFFICIAL** Delbert Butler	**TITLE** Plant Manager	**TELEPHONE** (208) 234-5410	
6. **EXACT PLANT LOCATION** Section 18 R-34-E, T-6-S; 5½ Section 7 R-34-E T-6-S		**COUNTY** Power	
7. **GENERAL NATURE OF BUSINESS and KINDS OF PRODUCTS** Manufacture of nitrogen, phosphate, and sulfate commercial products			

8. **PERMIT AUTHORITY**

This Tier I operating permit is issued pursuant to Idaho Code §39-115 and the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.300 - 386. The permittee shall comply with the terms and conditions of this permit.

This permit incorporates all applicable terms and conditions of prior air quality permits issued by the Department of Environmental Quality (DEQ) for the permitted source, unless the permittee emits toxic pollutants subject to state-only requirements pursuant to IDAPA 58.01.01.210, and the permittee elects not to incorporate those terms and conditions into this operating permit.

The effective date of this permit is the date of signature by DEQ on the cover page

DATE ISSUED: April 5, 2004

C. STEPHEN ALLRED. DIRECTOR
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE EXPIRES: [redacted]

Permit Limits / Standard Summary

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

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

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

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

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

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

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

[40 CFR 60.44b(a)(1); PTC No. 077-00006, 9/20/00]

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

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

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

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

5.7 The PM from the boiler stack shall not exceed a concentration of 0.015 grains per dry standard cubic foot corrected to 3% oxygen.

[IDAPA 58.01.01.676, 05/01/94; PTC No. 077-00006, 9/20/00]

5.8 For purposes of compliance with Permit Condition 5.9, the NO_x standards in Permit Condition 5.4 apply at all times including periods of startup, shutdown, or malfunction.

[40 CFR 60.44b(h)]

5.9 Compliance with the NO_x emissions limit in Permit Condition 5.4 is determined on a 30-day rolling average basis.

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

Operating Requirement

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

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

5.11 The boiler shall only use natural gas as fuel.

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

Monitoring and Record-keeping Requirements

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

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

5.13 The permittee shall install, calibrate, and operate a NO_x CEMS for measuring emissions discharged to the atmosphere and record the output of the system.

[PTC No. 077-00006, 9/20/00; 40 CFR 60.48b(b)]

5.14 The NO_x CEMS shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks and zero and span adjustments.

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

5.15 The one-hour average NO_x emission rates measured by the NO_x CEMS shall be expressed in lb/MMBtu heat input and shall be used to calculate the average 30-day emissions rates under Permit Condition 5.4. The one-hour averages shall be calculated using the data points required under 40 CFR 60.13(b). At least two data points must be used to calculate each one-hour average.

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

5.16 The NO_x CEMS must meet all requirements set forth in 40 CFR 60.13 (provided in Appendix B).

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

5.17 The span value for NO_x CEMS is 500 ppm.

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

5.18 When NO_x emissions data is not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data will be obtained by using standby monitoring systems, EPA Method 7, EPA Method 7A, or other approved reference methods to provide emissions data for a minimum of 75% of the operating hours in each steam-generating unit operating day for at least 22 out of 30 successive steam-generating unit operating days.

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

~~5.19 Each operating day, the permittee shall monitor and record the natural gas usage for that day, in MMcf/day. Once per month, the permittee shall record the total natural gas usage for the previous rolling 12-month period, in MMcf/yr.~~

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

~~5.20 The permittee shall calculate the emissions of SO_2, CO, and NO_x from the boiler on a monthly basis using AP-42 Section 1.4 (3/98) emission factors, or a DEQ-approved alternative.~~

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

5.21 The permittee shall calculate the annual capacity factor for each calendar quarter, and determine the annual capacity factor based on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

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

~~5.22 The permittee shall maintain the following records for each boiler operating day:~~

~~5.22.1 Calendar date~~

~~5.22.2 The average hourly NO_x emission rates (expressed as NO_2) measured as lb/MMBtu heat input.~~

6.4 The NO_x emissions from the boiler exhaust stack shall not exceed 2.88 lb/hr and 12.63 T/yr.
[PTC No. 077-00006, 06/16/95]

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

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

6.7 Particulate emissions from the boiler stack shall not exceed a concentration of 0.015 grains per dry standard cubic foot corrected to 3% oxygen.
[IDAPA 58.01.01.676, 05/01/94]

Operating Requirement

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

6.9 The Babcock and Wilcox boiler shall not burn more than 559,000,000 cf of natural gas per year.
[PTC No. 077-00006, 06/16/95]

Monitoring and Record-keeping Requirements

6.10 The permittee shall record and maintain records of the amounts of natural gas combusted during each day.
[PTC No. 077-00006, 06/16/95; 40 CFR 60.48c(g); 40 CFR 60.48c(i); IDAPA 58.01.01.322.06, 07, 5/1/94]

6.11 The permittee shall record the cumulative volume of natural gas fuel consumed by the Babcock and Wilcox boiler on a monthly basis. The permittee shall record the total natural gas usage in MMcf per rolling 12-month period. The records shall be kept on site for at least five years and shall be made available to DEQ representatives upon request.
[IDAPA 58.01.01.322.06, 07, 5/1/94]

6.12 The permittee shall calculate the emissions of SO_2, CO, and NO_x from the boiler on a monthly basis using AP-42 Section 1.4 (3/98) emission factors, or a DEQ-approved alternative.
[IDAPA 58.01.01.322.06, 07, 5/1/94]

Reporting

6.13 The permittee shall comply with 40 CFR 60.7, as contained in Appendix B, for notification and record-keeping requirements.
[40 CFR 60.7]

Permit Limits / Standard Summary

9.1 Particulate Matter Emissions

9.1.1 The PM emissions from the Granulation No. 3 stack shall not exceed 7.0 lb/hr and 30.7 T/yr. The ton-per-year emissions limit shall be determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the actual hours per year the process(es) venting to this stack operate(s).

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

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

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

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

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

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

[IDAPA 58.01.01.701, 4/5/00]

9.2 PM_{10} Emissions

9.2.1 The PM_{10} emissions from the Granulation No. 3 stack shall not exceed 5.7 lb/hr and 25.0 T/yr. The ton-per-year emissions limit shall be determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the actual hours per year the process(es) venting to this stack operate(s).

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

9.2.2 The PM_{10} emissions from the diatomaceous earth baghouse shall not exceed 0.28 lb/hr and 1.2 T/yr.

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

9.3 Total fluoride emissions from the Granulation No. 3 stack shall not exceed 1.28 lb/hr, and shall not exceed 5.63 T/yr. The ton-per-year emissions limit shall be determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the actual hours per year the process(es) venting to this stack operate(s).

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

9.4 The NO_x emissions from the Granulation No. 3 stack shall not exceed 3.4 lb/hr and 14.9 T/yr.

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

9.5 The SO_2 emissions from the Granulation No. 3 stack shall not exceed 0.02 lb/hr and 0.09 T/yr.

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

9.14 The dryer, with a maximum rated heat input capacity of 35 MMBtu/hr (determined on a 24-hour rolling average), shall burn only natural gas as fuel.

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

9.15 Maintenance to the scrubbers, and/or process equipment, and/or baghouse shall be performed if visible emissions from the Granulation No. 3 plant stack exceed 15% opacity.

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

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

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

Monitoring and Record-keeping Requirements

9.17 The permittee shall conduct compliance tests within 12 months of, or 12 months prior to, December 24, 2002 to demonstrate compliance with the PM hourly emissions limit in Permit Condition 9.1.1, the PM_{10} hourly emissions limit in Permit Condition 9.2.1, and the fluoride hourly emissions limit in Permit Condition 9.3.

During calendar years 2003, 2004, and 2005, compliance with the PM_{10} emissions limit in Permit Condition 9.2.1 shall be determined by conducting a Method 5 performance test on the granulation No. 3 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 granulation No. 3 stack in addition to the Method 5 test. 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 9.2.1 shall be determined by source testing using Methods 5 and 202 on the granulation No. 3 scrubber stack. The compliance tests shall be performed in accordance with Permit Conditions 2.15, 2.16, 2.17, and the following requirements, except that Permit Condition 9.17.6 shall not apply to testing of emissions of PM and PM_{10} until calendar year 2006:

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

9.17.2 The pressure drop across the baghouse shall be monitored and recorded during each compliance test.

9.17.3 The pressure drop and liquid flow rate of the wet scrubber shall be monitored and recorded during each compliance test.

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

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

9.17.6 If the measurement during the initial compliance test is less than or equal to 75% of the respective hourly emission standard, no further testing for that emissions standard shall be required during the term of the permit. If the measurement during the initial compliance test is greater than 75%, but less than or equal to 90% of the hourly respective emission standard, a second test for that emissions standard shall be required in the third year of the permit term. If measurement during the compliance test is greater than 90% of the respective hourly emission standard, the permittee shall conduct a compliance test for that emissions standard annually.

[PTC No. 077-00006, 12/12/01; Tier II Permit No. 077-00006, 12/3/99; IDAPA 58.01.01.322.06, 5/1/94]

9.18 To demonstrate compliance with the NO_x, CO, SO_2, and VOC emissions limits, the permittee shall continuously monitor the amount of natural gas fired in the dryer. On a monthly basis, the permittee shall record the natural gas consumption of the dryer, the operating hours of the dryer, and the rolling 12-month natural gas usage. The permittee shall calculate the monthly and rolling 12-month emission rate using AP-42 Section 1.4 (3/98) emission factors for natural gas combustion, or a DEQ-approved alternative, on a monthly basis.

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

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

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

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

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

9.20 Within 60 days after startup, the permittee shall develop an O&M manual for the baghouse and wet scrubber system that describes the procedures that will be followed to comply with General Provision 2 of PTC No. 077-00006 and Permit Conditions 9.12 and 9.13. This manual shall remain on site at all times and shall be made available to DEQ representatives upon request.

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

9.21 The permittee shall at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.

[General Provision 2 of PTC No. 077-00006, 12/12/01]

9.22 The permittee shall monitor and record the following information:

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 Condition	Parameter	Permit Limit / Standard Summary	Applicable Requirement 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]

(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]

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, 2004, and 2005, compliance with the PM_{10} emissions limit in Permit Condition 14.2 shall be determined by conducting a Method 5 performance test on one of the cooling

tower cells in each of the three reclaim cooling towers. 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 and 2005, Method 5 and 202 performance 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. 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 14.2 shall be determined by annual source testing using Methods 5 and 202 on one 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]

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 test one of the 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.

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

14.9 Total Fluoride and PM/PM_{10} Monitoring

Table 16.2 SUMMARY OF PERMIT REQUIREMENTS

Permit Conditions	Parameter	[illegible]	[illegible]	Monitoring and [illegible]
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,

~~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 SO2 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	0[-3]
mg/scm	kg/scm	0[-6]
ppm (SO_2)	kg/scm	0[-6]
ppm (SO_2)	lb/scf	0[-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 Sulfur Dioxide and Sulfuric Acid Mist

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]

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 3-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 <u>Continuous Emissions Monitoring</u>

(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 SO2 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:

[illegible]	[illegible]	[illegible]
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)]**~~