STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Mississippi Phosphates Corporation
601 Highway 611
Pascagoula, Mississippi
Jackson, County

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. § 7401 - 7671) and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Permit Issued: July 12, 2006

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: June 30, 2011

Modified (Ownership Change): OCT 16 2015 **Permit No.: 1280-00044**

2068 PER20150001

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SECTION 1. GENERAL CONDITIONS

1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (Ref.: APC-S-6, Section III.A.6.a.)

1.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (Ref.: APC-S-6, Section III.A.6.b.)

1.3 This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (Ref.: APC-S-6, Section III.A.6.c.)

1.4 This permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: APC-S-6, Section III.A.6.d.)

1.5 The permittee shall furnish to the DEQ within a reasonable time any information the 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. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: APC-S-6, Section III.A.6.e.)

1.6 The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. (Ref.: APC-S-6, Section III.A.5.)

1.7 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation APC-S-6.

(a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of

the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgements where such judgements are derived from process and/or emission data which supports the estimates of maximum actual emission. (Ref.: APC-S-6, Section VI.A.2.)

(b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee. (Ref.: APC-S-6, Section VI.A.2.) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time. (Ref.: APC-S-6, Section VI.D.2.)

(c) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due. (Ref.: APC-S-6, Section VI.D.)

(d) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition. (Ref.: APC-S-6, Section VI.C.)

1.8 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 this permit. (Ref.: APC-S-6, Section III.A.8.)

1.9 Any document required by this permit to be submitted to the DEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (Ref.: APC-S-6, Section II.E.)

1.10 The permittee shall allow the DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to perform the following:

(a) enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;

(b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) as authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. (Ref.: APC-S-6, Section III.C.2.)

1.11 Except as otherwise specified or limited herein, the permittee shall have necessary sampling ports and ease of accessibility for any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere. (Ref.: APC-S-1, Section 3.9(a))

1.12 Except as otherwise specified or limited herein, the permittee shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board for air pollution control equipment that was in existence prior to May 8, 1970. (Ref.: APC-S-1, Section 3.9(b))

1.13 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source. (Ref.: APC-S-6, Section III.F.1.)

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

(a) the provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;

(b) 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;

(c) the applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act.

(d) the ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act. (Ref.: APC-S-6, Section III.F.2.)

1.15 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required pursuant to Section 112® of the Act to register such a plan. (Ref.: APC-S-6, Section III.H.)

1.16 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application. (Ref.: APC-S-6, Section IV.C.2., Section IV.B., and Section II.A.1.c.)

1.17 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:

(a) the changes are not modifications under any provision of Title I of the Act;

(b) the changes do not exceed the emissions allowable under this permit;

(c) the permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such other time frame as provided in other regulations for emergencies) and the notification includes:

(1) a brief description of the change(s),

(2) the date on which the change will occur,

(3) any change in emissions, and

(4) any permit term or condition that is no longer applicable as a result of the change;

(d) the permit shield shall not apply to any Section 502(b)(10) change. (Ref.: APC-S-6, Section IV.F.)

1.18 Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in

Regulation APC-S-3, "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared. (Ref.: APC-S-3)

1.19 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations APC-S-2, "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment", and may require modification of this permit in accordance with Regulations APC-S-6, "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act". Modification is defined as "[a]ny physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:

(a) routine maintenance, repair, and replacement;

(b) use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;

(c) use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;

(d) use of an alternative fuel or raw material by a stationary source which:

(1) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; or

(2) the source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166;

(e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or 40 CFR 51.166; or

(f) any change in ownership of the stationary source."

1.20 Any change in ownership or operational control must be approved by the Permit Board. (Ref.: APC-S-6, Section IV.D.4.)

1.21 This permit is a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit the source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission. (Ref.: APC-S-6, Section III.B.1)

1.22 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance. Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.

(a) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.

(b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.

(c) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator. (Ref.: APC-S-1, Section 3.7)

1.23 Except as otherwise specified herein, the permittee shall be subject to the following provision with respect to emergencies.

(a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.

(c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:

(1) an emergency occurred and that the permittee can identify the cause(s) of the emergency;

(2) the permitted facility was at the time being properly operated;

(3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) the permittee submitted notice of the emergency to the DEQ within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein. (Ref.: APC-S-6, Section III.G.)

1.24 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, startups, shutdowns and maintenance.

(a) Upsets (as defined by APC-S-1, Section 2.34)

(1) The occurrence of an upset constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the permittee demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:

(i) an upset occurred and that the permittee can identify the cause(s) of the upset;

(ii) the source was at the time being properly operated;

(iii) during the upset the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;

(iv) the permittee submitted notice of the upset to the DEQ within 5 working days of the time the upset began; and

(v) the notice of the upset shall contain a description of the upset, any steps taken to mitigate emissions, and corrective actions taken.

(2) In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

(3) This provision is in addition to any upset provision contained in any applicable requirement.

(b) Startups and Shutdowns (as defined by APC-S-1, Sections 2.31 & 2.26)

(1) Startups and shutdowns are part of normal source operation. Emissions limitations applicable to normal operation apply during startups and shutdowns except as follows:

(i) when sudden, unavoidable breakdowns occur during a startup or shutdown, the event may be classified as an upset subject to the requirements above;

(ii) when a startup or shutdown is infrequent, the duration of excess emissions is brief in each event, and the design of the source is such that the period of excess emissions cannot be avoided without causing damage to equipment or persons; or

(iii) when the emissions standards applicable during a startup or shutdown are defined by other requirements of Applicable Rules and Regulations or any applicable permit.

(2) In any enforcement proceeding, the permittee seeking to establish the applicability of any exception during a startup or shutdown has the burden of proof.

(3) In the event this startup and shutdown provision conflicts with another applicable requirement, the more stringent requirement shall apply.

(c) Maintenance.

(1) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an

affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the permittee can demonstrate the following:

(i) the permittee can identify the need for the maintenance;

(ii) the source was at the time being properly operated;

(iii) during the maintenance the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;

(iv) the permittee submitted notice of the maintenance to the DEQ within 5 working days of the time the maintenance began or such other times as allowed by DEQ; and

(v) the notice shall contain a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken.

(2) In any enforcement proceeding, the permittee seeking to establish the applicability of this section has the burden of proof.

(3) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply. (Ref.: APC-S-1, Section 10)

1.25 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M, as adopted by reference in Regulation APC-S-1, Section 8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
AA-001	The No. 2 Sulfuric Acid Plant
AA-008	The Phosphoric Acid Plant
AA-012	The Diammonium Phosphate (DAP) Plant with two emission points, a & b, equipped with the following: a. Baghouse for the control of particulate matter; and, b. Scrubber for the control of Fluoride emissions.
AA-015	The ammonia flare equipped with a 0.417 MMBtu/hr natural gas fired pilot.
AA-017	The No. 3 Sulfuric Acid Plant
AA-027	The old phosphogypsum stack.
AA-028	The new phosphogypsum stack.
AA-030	Boiler, 99.5 MMBtu/hr natural gas fired boiler, replacement for AA-026.
AA-031	1,069 HP backup generator for East Phosphogypsum Stack, rated at 6.91 MMBtu/hr.

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. Facility-Wide Emission Limitations & Standards

3.A.1 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (a) & (b).

(a) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.

(b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour. (Ref.: APC-S-1, Section 3.1)

3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Paragraph 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets. (Ref.: APC-S-1, Section 3.2)

B. Emission Point Specific Emission Limitations & Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-001 AA-017	PSD Construction Permit Issued March 20, 1998 NSPS, 40 CFR 60 Subpart H, Standards of Performance for Sulfuric Acid Plants, 40 CFR 60.80-85	3.B.1 3.B.2	SO_2	4.00 lbs/(ton of 100% H_2SO_4 Produced), not to exceed 1,992 TPY per rolling 365 day average.
			H_2SO_4 Mist	0.15 lbs/(ton of 100% H_2SO_4 Produced), not to exceed 11.16 lbs/hr and 48.88 TPY
			Opacity	$\leq$ 10%

AA-008	Construction Permit Issued December 19, 1995 and modified July 14 , 1999 NSPS, 40 CFR 60 Subparts A and T, General Provisions and Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants, 40 CFR 60.1-19 and 200-204	3.B.3 3.B.4	PM	3.85 lb/hr
			Fluorides	0.0137 lb/(ton of P_2O_5 Feed)
			Production Rate	$\leq$ 511,000.0 (tons of P_2O_5 produced)/year
AA-012	Construction Permit Issued May 27, 1997	3.B.5	PM/PM_{10}	19.0 lbs/hr and 83.22 TPY
			Flouride	0.105 (lbs of Flouride)/(ton of P_2O_5 input), not to exceed 26.0 TPY
AA-015	APC-S-1, Section 3.4 (a) (1) APC-S-1, Section 4.1 (a)	3.B.8 3.B.7	PM	0.6 lb/MMBtu
			SO_2	4.8 lb/MMBtu
AA-027 AA-028	NESHAP, 40 CFR 61 Subpart R, National Emission Standards for Radon Emissions from Phosphogypsum Stacks, 40 CFR 61.200-210	3.B.9	Radon	Upon a stack being classified as inactive, $\leq$ 20 $pCi/m^2 \cdot s$ of radon-222
AA-030	APC-S-1, Section 3.4 (a) (2) APC-S-1, Section 4.1 (a) 40 CFR 60, Subpart A NSPS, subpart Dc, 40 CFR 60.40c, 60.48c(a) and 60.48c(g)	3.B.6 3.B.7 3.B.10 3.B.11 3.B.12	PM	$E = 0.8808 * I^{-0/1667}$
			SO_2	4.8 lb/MMBtu
			NO_X	14.81 lbs/hr, 48.15 tons/year
			CO	8.96 lbs/hr, 29.12 tons/year
			Fuel Restriction	Natural Gas Only
			Operating Restriction	$\leq$ 6,504 hrs in any consecutive 12-month period
AA-031	Construction Permit Issued May 1, 2006 APC-S-1, Section 3.4 (a)(1) APC-S-1, Section 4.1 (a)	3.B.13 3.B.8 3.B.7 3.B.14 3.B.15	NO_X	33.3 lb/hr and 39.2 tons/yr
			PM/PM_{10}	0.6 lb/MMBtu
			SO_2	4.8 lb/MMBtu
			Operating Restriction	$\leq$ 2,352 hrs in any consecutive 12-month period
			Fuel Restriction	No. 2 Fuel Oil only

3.B.1 For Emission Points AA-001 and AA-017, the permittee is limited in the Construction Permit Issued March 20, 1998.

3.B.2 For Emission Points AA-001 and AA-017, the permittee is subject to, and shall comply with, 40 CFR 60, Subparts A and H, General Provisions and Standards of Performance for Sulfuric Acid Plants. (Ref.: 40 CFR 60.1-19 and 80-85)

(a) Standard for Sulfur Dioxide

The permittee shall cause to be discharged into the atmosphere no gases which contain sulfur dioxide in excess of 4.0 pounds per ton of acid produced, the production expressed as 100% H_2SO_4. (Ref.: 40 CFR 60.82(a))

(b) Standard for Acid Mist

The permittee shall cause to be discharged into the atmosphere no gases which:

(1) Contain acid mist, expressed as H_2SO_4, in excess of 0.15 pound per ton of acid produced, the production expressed as 100% H_2SO_4.

(2) Exhibit more than 10 percent opacity.

(Ref.: 40CFR 60.83(a))

3.B.3 For Emission Point AA-008, the permittee is limited by the Construction Permit Issued December 19, 1995 and modified July 14, 1999.

3.B.4 For Emission Point AA-008, the permittee is subject to, and shall comply with, 40 CFR 60, Subpart T, Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants. (Ref.: 40 CFR 60.200-204)

3.B.5 For Emission Point AA-012, the permittee is limited by the Construction Permit Issued May 27, 1997.

3.B.6 For Emission Point AA-030, otherwise specified or limited herein, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations greater than 10 million BTU per hour heat input but less than 10,000 million BTU per hour heat input shall not exceed an emission rate as determined by the relationship

$$E = 0.8808 * I^{-.01667}$$

Where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour. (Ref.: APC-S-1, Section 3.4(a)(2))

3.B.7 For Emission Points AA-015, AA-030, and AA-031, the maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. (Ref.: APC-S-1, Section4.1(a))

3.B.8 For Emission Point AA-015 and AA-031, particulate matter emissions from installation of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. (Ref.: APC-S-1, Section 3.4 (a)(1))

3.B.9 For Emission Points AA-027 and AA-028, the permittee is subject to, and shall comply with, 40 CFR 61, Subpart R, National Emission Standards for Radon Emissions from Phosphogypsum Stacks (Attached as Appendix C). (Ref.: 40 CFR 61.200-210)

The permittee shall place all phosphogypsum in stacks. Phosphogypsum may be removed from a phosphogypsum stack only as expressly provided by 40 CFR 61, Subpart R. After a phosphogypsum stack has become an inactive stack, the permittee shall assure that the stack does not emit more than $20 pCi/m^2 \cdot s$ of radon-222 into the air. (Ref.: 40 CFR 61.202)

3.B.10 Emission Point AA-030, the 99.5 MMBtu/hr Boiler, is subject to and shall comply with the New Source Performance Standards (NSPS) as described in 40 CFR Subpart A – General Provisions, and 40 CFR, Subpart Dc, including 40 CFR 60.48c(a) and 60.48c(g).

3.B.11 For Emission Point AA-030, the 99.5 MMBtu/hr boiler, the Permittee shall be restricted to burning natural gas for fuel. (Ref.: Title V Permit Modified July 9, 2003)

3.B.12 For Emission Point AA-030, the permittee shall be limited to operation of 6,504 hours in any consecutive 12-month period. (Ref.: Title V Permit Modified July 9, 2003)

3.B.13 For Emission Point AA-031, the permittee shall be limited to 39.2 tons per year and 33.3 lb per hour nitrogen oxide emissions. (Ref.: Construction Permit Issued May 1, 2006)

3.B.14 For Emission Point AA-031, the permittee shall be limited to operation of 2,352 hours in any consecutive 12-month period. (Ref.: Construction Permit Issued May 1, 2006)

3.B.15 For Emission Point AA-03, the 1,069 HP backup generater, the Permittee shall be restricted to burning No. 2 Fuel Oil only. (Ref.: Construction Permit Issued May 1, 2006).

C. Insignificant and Trivial Activity Emission Limitations & Standards

Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
APC-S-1, Section 3.4(a)(1)	3.C.1	PM	0.6 lbs/MMBTU, or as otherwise limited by facility modification restrictions.
APC-S-1, Section 4.1(a)	3.C.2	SO_2	4.8 lbs/MMBTU, or as otherwise limited by facility modification restrictions.
APC-S-1, Section 3.6(a)	3.C.3	PM	$E=4.1p^{0.67}$, or as otherwise limited by facility modification restrictions.

3.C.1 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input.

3.C.2 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

3.C.3 Except as otherwise specified, no person shall cause, permit, or allow the emission from any manufacturing process, in any one hour from any point source, particulate matter in total quantities in excess of the amount determined by the relationship:

$$E = 4.1\ p^{0.67}$$

Where E is he emission rate in pounds per hour and p is the process weight input rate in tons per hour.

SECTION 4. COMPLIANCE SCHEDULE

4.1 Unless otherwise specified herein, the permittee shall be in compliance with all requirements contained herein upon issuance of this permit.

4.2 Except as otherwise specified herein, the permittee shall submit to the Permit Board and to the Administrator of EPA Region IV a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, by January 31 for the preceding calendar year. Each compliance certification shall include the following:

(a) the identification of each term or condition of the permit that is the basis of the certification;

(b) the compliance status;

(c) whether compliance was continuous or intermittent;

(d) the method(s) used for determining the compliance status of the source, currently and over the applicable reporting period;

(e) such other facts as may be specified as pertinent in specific conditions elsewhere in this permit. (Ref.: APC-S-6, Section III.C.5.a.,c.,&d.)

SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

A. General Monitoring, Recordkeeping and Reporting Requirements

5.A.1 The permittee shall install, maintain, and operate equipment and/or institute procedures as necessary to perform the monitoring and recordkeeping specified below.

5.A.2 In addition to the recordkeeping specified below, the permittee shall include with all records of required monitoring information the following:

(a) the date, place as defined in the permit, and time of sampling or measurements;

(b) the date(s) analyses were performed;

(c) the company or entity that performed the analyses;

(d) the analytical techniques or methods used;

(e) the results of such analyses; and

(f) the operating conditions existing at the time of sampling or measurement. (Ref.: APC-S-6, Section III.A.3.b.(1)(a)-(f))

5.A.3 Except as otherwise specified herein, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (Ref.: APC-S-6, Section III.A.3.b.(2))

5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31 and January 31 for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with APC-S-6, Section II.E. (Ref.: APC-S-6, Section III.A.3.c.(1))

5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) days of the time the deviation began. (Ref.: APC-S-6, Section III.A.3.c.(2))

5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements, if applicable. All test methods shall be those versions or their equivalents approved by the DEQ and the EPA.

B. Specific Monitoring, Recordkeeping, and Reporting Requirements

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping/Reporting Requirement	Condition Number	Applicable Requirement
AA-001 AA-017	SO_2	40 CFR 60, Subparts A and H, General Provisions and Standards of Performance for Sulfuric Acid Plants, which includes calculating total SO_2 emissions on a daily basis for each consecutive 365-day period. Biennial stack testing in accordance with EPA Method 8.	5.B.1 5.B.4 5.B.5	PSD Construction Permit Issued March 20, 1998 NSPS, 40 CFR 60 Subpart H, Standards and Performance for Sulfuric Acid Plants, 40 CFR 60.80-85.
	H_2SO_4 Mist	Compliance Assurance Monitoring (CAM). Monitor visible emissions, Acid Strength, and Acid Temperature to ensure proper operation of the mist eliminator control equipment.		
	Opacity	Perform and record weekly visible emissions evaluations in accordance with EPA Method 9.		

AA-008	PM	Biennial stack testing in accordance with EPA Reference Methods 1-5. CAM. Monitor differential pressure (Dp) across each scrubber system and keep a daily record of P_2O_5 production.	5.B.2 5.B.6	Construction Permit Issued December 19, 1995 and modified July 14, 1999. NSPS, 40 CFR 60 Subparts A and T, General Provisions and Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants, 40CFR 60.1-19 and 200-204. 40 CFR Part 64, Compliance Assurance Monitoring.
	Flourides	Monitor total flourides in accordance with 40 CFR 60 Subpart T. CAM. Monitor differential pressure (Dp) across each scrubber system and keep a daily record of P_2O_5 production. Biennial stack testing in accordance with EPA Method 13B.	5.B.2 5.B.6 5.B.7	
	Production Rate	Record and maintain production records on a daily basis.	5.B.6 5.B.7	
AA-012	PM/PM_{10} Flourides	CAM. Monitor differential pressure across each baghouse and scrubber; weekly maintenance checks; and monitoring and recording the amperage of the recirculation pumps in the scrubber system. Biennial stack testing in accordance with EPA Methods 1-5 and 13B.	5.B.3 5.B.8	Construction Permit Issued May 27, 1997 40 CFR Part 64, Compliance Assurance Monitoring.
AA-015	PM SO_2	Burn natural gas only.	5.B.9	
AA-027 AA-028	Radon	40 CFR 61, Subpart R, National Emission Standards for Radon Emissions from Phosphogypsum Stacks, which includes testing and recordkeeping for Radon-222 after a stack becomes inactive.	5.B.10	40 CFR 61, National Emission Standards for Radon Emissions from Phosphogypsum Stacks.

AA-030	NO_x	Biennial stack testing in accordance with EPA Method 7.	5.B.11 5.B.12 5.B.13	40 CFR 60, Subpart A NSPS, Subpart Dc, 40 CFR 60.40c, 60.48c(a), and 60.48c(g).
	CO	Biennial stack testing in accordance with EPA Method 10.		
	Fuel Restriction	Monitor and maintain monthly records on type, quantity, quality, and heating value (BTU/ft^3) of fuel combusted.		
	Operating Restriction	Record the hours of operation on a monthly basis for each month and for each consecutive 12-month period in log form.		
AA-031	Operating Restriction	Record and maintain records documenting the total engine run time for each consecutive 12-month period.	5.B.14 5.B.15	Construction Permit Issued May 1, 2006
	Fuel Restriction	Record and maintain records of the total fuel usage, sulfur content of fuel, and BTU value of fuel.		

5.B.1 For Emission Points AA-001 and AA-017, No. 2 and No. 3 Sulfuring Acid Plants respectively, the facility shall monitor and keep records according to the following CAM (compliance assurance monitoring) plan.

I. Indicator	Indicator No.1: Visible Emissions	Indicator No.2: Acid Temperature	Indicator No. 3: Acid Strength
Measurement Approach	Operators will perform a weekly six-minute Method 9 Visible Emissions Evaluation (VEE) observation on each sulfuric acid stack.	Electronically record acid temperature.	Electronically record acid strength.
II. Indicator Range	An excursion is defined as any six-minute average VEE reading greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as any four-hour average temperature that is >190°F. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as any two consecutive acid strength manual recordings that are below 98% or above 99%. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria			

A	Data Representativeness	If the six-minute Method 9 VEE stack observance determines opacity over 10%, then an inspection will be performed, adjustments will be made as necessary followed by an additional stack observation. If greater than 10% opacity still exists after three attempts, then a Method 9, consisting of 3 six-minute averages, will be performed, followed by corrective action, and a reporting requirement.	Instrument electronically records the temperature continuously. Operators observe the value regularly and manually record the value every 2 hours.	Instrument electronically records the acid strength continuously. Operators observe the value regularly and manually record the value every 2 hours.
B	Verification of Operational Status	NA	NA	NA
C	QA/QC Practices and Criteria	Method 9 VEE observers will be trained twice per year.	Operators observe value regularly. Alarms are in place. If problem is suspected then I&E personnel are notified. A daily manual check of the temperature is performed.	Operators observe value regularly. Alarms are in place. If a problem is suspected, then I&E personnel are notified. A daily check of the acid strength is verified by the laboratory.
D	Monitoring Frequency	Method 9 VEE performed as required or at least weekly.	Temperature is recorded on a continuous basis electronically. Operators record manually every 2 hours.	Acid strength is recorded on a continuous basis electronically. Operators record manually every 2 hours.
E	Data Collection Procedures	Documentation of Method 9 VEEs are recorded and maintained on file.	Temperature is recorded on a continuous basis electronically. Operators record manually every 2 hours.	Acid strength is recorded on a continuous basis electronically. Operators record manually every 2 hours.
F	Averaging Period	The weekly Method 9 VEE will be a six-minute average with readings taken every 15 seconds. If observed opacity is greater than 10% ,after three attempts to correct, the Method 9 VEE will be the average of three (3) six-minute averages. Each six-minute average consists of one reading every 15 seconds.	Four-hour average will be determined by operators and used as a basis for further action.	Operators as a basis for further action will use two consecutive readings taken 2 hours apart.

5.B.2 For Emission Points AA-008, the Phosphoric Acid Plant, the facility shall monitor and keep records according to the following CAM (compliance assurance monitoring) plan.

I. Indicator	Indicator No.1: Differential Pressure (Dp) Across each Scrubber System	Indicator No. 2: Daily record of P_2O_5 production rate.
Measurement Approach	Measure Dp electronically with differential pressure gauge transmitters. Record Dp across each two-stage scrubber system continuously with the DCS system. An alarm is set to alert the operator when value approaches undesired lower pressure value.	Daily record of production rate. The P_2O_5 production is converted to a 100% acid basis.
II. Indicator Range	An excursion is defined as any three consecutive manual 1-hour differential pressure recordings less than 2.75 inches	An excursion is defined as failing to record the daily production rate. Excursions trigger corrective action and a reporting

		w.c. on either scrubber system (north or south system). Excursions trigger an inspection, corrective action, and a reporting requirement.	requirement.
III. Performance Criteria			
A	Data Representativeness	Pressure taps are located upstream of the 1st stage scrubber and downstream of the 2nd stage scrubber on each system. The gauges have a minimum accuracy of ± 0.2%.	Daily records.
B	Verification of Operational Status	NA	Daily records.
C	QA/QC Practices and Criteria	The pressure gauges are calibrated quarterly. Pressure taps are checked for plugging periodically. Alarm is tested quarterly. Biennial stack tests performed.	N/A
D	Monitoring Frequency	Pressure differential is monitored continuously and recorded electronically.	Daily.
E	Data Collection Procedures	Pressure drop is continuously recorded. Operators will monitor the continuous readings once per hour and log the value.	Daily.
F	Averaging Period	Reading is continuously recorded and displayed. Three consecutive manual 1-hour recordings are used for determination of an excursion.	Daily production rate is converted to a 100% acid basis.

5.B.3 For Emission Points AA-012, the Diammonium Phosphate Plant, the facility shall monitor and keep records according to the following CAM (compliance assurance monitoring) plan.

I. Indicator	Indicator No.1: Differential Pressure (Dp) Across each Scrubber System.	Indicator No. 2: Weekly Maintenance Checks of Control Devices.	Indicator No. 3: Amperage on Recirculation Pumps of the Scrubber System.
Measurement Approach	Measure Dp electronically with differential pressure gauge transmitters. Record Dp across each baghouse and across the two-stage scrubber system once per day.	Maintenance checks will be performed weekly to ensure equipment is operating properly and bags are not deteriorating.	A measure of the amperage on the recirculation pumps will be continuously displayed via an amperage meter. Operators will record the value once per hour. Alarm will sound when a low amperage level is indicated.
II. Indicator Range	An excursion is defined as a daily differential pressure value less than 4.0 in w.c. on the Equipment BH, 5.0 in w.c. on the Cooler BH, or 16 inches w.c. on the scrubber system. Excursions trigger an inspection, corrective action, and a reporting requirement.	Excursion is defined as a failure to perform the weekly maintenance checks on baghouses or scrubbers.	An excursion is defined as any three consecutive 1-hour amperage recordings below 5 amps. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria			

A	Data Representativeness	Pressure taps are located upstream of the 1st stage scrubber and downstream of the 2nd stage scrubber; and upstream anddownstream of each baghouse unit. The gauges have a minimum accuracy of ± 0.5% in w.c.	NA	The amperage meter is physically connected to the recirculation pumps electrical system and the data is manually recorded once/hr. The meter has a minimum accuracy of ± 0.5% of full scale.
B	Verification of Operational Status	NA	NA	NA
C	QA/QC Practices and Criteria	The pressure gauges are checked for suitability monthly. Pressure taps are checked for plugging periodically. Biennial stack tests performed.	Trained personnel perform inspections and maintenance.	The amperage meters will be calibrated quarterly.
D	Monitoring Frequency	Pressure differential is monitored daily, or more frequently if problem is suspected, and recorded.	Weekly maintenance checks.	Recirculation pumps amperage is monitored electronically on a continuous basis.
E	Data Collection Procedures	Pressure drop is recorded daily. Operators will log the value daily.	Documentation of weekly maintenance checks and any maintenance performed are recorded in a log.	Data is recorded manually once per hr. When an alarm sounds, then a record will be made of the value and any corrective action taken.
F	Averaging Period	Reading is recorded daily and used to determine whether an excursion has occurred.	NA	Reading is continuously displayed and recorded every hr. A consecutive 3-hour period is then used for determination of an excursion.

5.B.4 For Emission Points AA-001 and AA-017,

(a) For the first year of operation (effective start-up date), the permittee shall calculate the SO_2 emissions based on the continuous emissions monitor (CEM) results and the most recent stack testing data in lb/ton times the tons of production per day for each consecutive 365-day period. After the first year, the permittee shall use the CEM data to calculate the total SO_2 emissions for each day and for each consecutive 365-day period. The data from the continuous emissions monitor shall be converted daily from parts per million SO_2 to pounds of SO_2 per ton of Sulfuric Acid.

(b) During periods of continuous emissions monitor downtime, the permittee shall calculate the SO_2 emissions based on 4.0 pounds per ton.

(c) The permittee shall submit semi-annual reports summarizing the total SO_2 emissions for both sulfuric acid plant No. 2 and plant No.3 for each consecutive 365-day period. The reports shall be submitted in accordance with 5.A.4.

(d) The permittee shall submit excess emissions and monitoring systems performance reports and/or summary report form on a quarterly basis.

(e) The permittee shall perform stack testing in accordance with EPA Reference Method 8 to demonstrate compliance with the permitted emission limitations for sulfur dioxide and sulfuric acid mist. The permittee shall demonstrate compliance and submit stack test reports biennially continuing on the schedule set forth in the previous permit. For the purpose of compliance demonstration the permittee shall operate the source at maximum capacity.

The permittee shall submit a written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ shall be notified in writing at least ten (10) days prior to the scheduled test date(s) so that an observer may be afforded the opportunity to witness the test(s).

After the first successful submittal of an initial written test protocol in conjunction with the initial compliance test(s), the permittee may request that the resubmittal of a testing protocol be waived for subsequent testing by certifying in writing at least thirty (30) days prior to subsequent testing that all conditions for testing remain unchanged such that the original protocol can and will be followed.

(f) The permittee shall perform and record weekly visible emissions evaluations in accordance with EPA Reference Method 9 to demonstrate compliance with the permitted emission limitations for opacity. The records shall be summarized and reported in accordance with 5.A.4.

5.B.5 Emission Points AA-001 and AA-017, the No.2 and No.3 Sulfuric Acid Plants, are subject to the New Source Performance Standards for Sulfuric Acid Plants, as described in 40 CFR 60, Subpart H and the General Provisions as described in 40 CFR 60, Subpart A.

Emissions Monitoring

(a) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the permittee. 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 (SO_2). 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 1000ppm of sulfur dioxide.

(b) The permittee 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:

$$CF = k\left[(1.000 - 0.015r)/(r - s)\right]$$

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 permittee 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 percent and for O_2 shall be 20.9 percent (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_s = emission rate of SO_2, kg/metric ton (lb/ton) of 100 percent 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 percent H_2SO_4produced.
$\%O_2$= oxygen concentration, percent dry basis.
A = auxiliary fuel factor,
=0.00 for no fuel.
=0.0226 for methane.
=0.0217 for natural gas.
=0.0196 for propane.

=0.0172 for No 2 oil.
=0.0161 for No 6 oil.
=0.0148 for coal.
=0.0126 for coke.

$\%CO_2$= carbon dioxide concentration, percent dry basis.

Note: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From_	To_	Multiply by_
g/scm	kg/scm	10^{-3}
mg/scm	kg/scm	10^{-6}
ppm (SO_2)	kg/scm	$2.660 * 10^{-6}$
ppm (SO_2)	lb/scf	$1.660 * 10^{-7}$

(e) For the purpose of reports under 40 CFR 60.7(c), periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards under 3.B.2.

Test Methods and Procedures

(f) In conducting the performance tests required in §60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(g) The permittee shall determine compliance with the SO_2acid mist, and visible emission standards in §§60.82 and 60.83 as follows:

(1) The emission rate (E) of acid mist or SO_2shall be computed for each run using the following equation:

$E=(CQ_{sd})/(PK)$

where:

E = emission rate of acid mist or SO_2kg/metric ton (lb/ton) of 100 percent 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 percent 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 percent 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 §60.11 shall be used to determine opacity.

(h) The permittee 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 §60.84(d), substituting the acid mist concentration for C_s as appropriate.

(Ref.:40 CFR 60.80-85)

5.B.6 For Emission Point AA-008,

(a) The permittee shall restrict the production rate of P_2O_5 to 511,000 tons P_2O_5 produced/year.

(b) The permittee shall record the necessary data to verify production rate on a daily basis. The records shall be maintained in a log book at the plant for review by the Office of Pollution Control personnel. The records shall be summarized and reported in accordance with 5.A.4.

(c) The permittee shall perform stack testing in accordance with EPA Reference Methods 1-5, and 13B to demonstrate compliance with the permitted emission limitations for particulate matter and fluorides, respectively. The permittee shall demonstrate compliance and submit stack test biennially continuing on the schedule

set forth in the previous permit. For the purpose of compliance demonstration the permittee shall operate the source at maximum capacity.

The permittee shall submit a written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ shall be notified in writing at least ten (10) days prior to the scheduled test date(s) so that an observer may be afforded the opportunity to witness the test(s).

After the first successful submittal of an initial written test protocol in conjunction with the initial compliance test(s), the permittee may request that the resubmittal of a testing protocol be waived for subsequent testing by certifying in writing at least thirty (30) days prior to subsequent testing that all conditions for testing remain unchanged such that the original protocol can and will be followed.

5.B.7 For Emission Point AA-008, the permittee is subject to, and shall comply with, 40 CFR 60, Subpart T, Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants.

Monitoring of Operations

(a) The permittee shall install, calibrate, maintain, and operate a monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material to the process. The monitoring device shall have an accuracy of $\pm$ 5 percent over its operating range.

(b) The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in metric ton/hr of phosphorus-bearing feed using a monitoring device for measuring a mass flow rate which meets the requirements of paragraph A of this section and then by proceeding according to E(3).

(c) The permittee shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the process scrubbing system. The monitoring device shall have an accuracy of $\pm$ 5 percent over its operating range.

Test Methods and Procedures

(d) In conducting the performance tests required in 40 CFR 60.8, the permittee shall use as a 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).

(e) The permittee shall determine compliance with the total fluorides standard in 40 CFR 60.202 as follows:

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

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

where:

E= emission rate of total fluorides, g/Mg (lb/ton) of equivalent P_2O_5 feed.
C_{si}= concentration of total fluorides from emission point "i," mg/dscm (gr/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, Mg/hr (ton/hr).
K= conversion factor, 1000 mg/g (7,000 gr/lb).

(2) Method 13A or 13B 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. 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 for each run using the following equation:

$$P=M_p R_p$$

where:

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

(i) The accountability system of §60.203(a) shall be used to determine the mass flow rate (M_p) of the phosphorus-bearing feed.

(ii) The Association of Official Analytical Chemists (AOAC) Method 9 (incorporated by reference—see §60.17) shall be used to determine the P_2O_5 content (R_p) of the feed.

(Ref.:40 CFR 60.200-204)

5.B.8 For Emission Point AA-012,

(a) The permittee shall maintain measuring devices as are necessary for daily monitoring and/or measurement of the pressure drop across the scrubber emission control system. The records shall be summarized and reported in accordance with 5.A.4.

(b) The permittee shall maintain measuring devices as are necessary for daily monitoring and/or measurement of the pressure drop across the baghouse control system. The records shall be summarized and reported in accordance with 5.A.4.

(c) The permittee shall perform stack testing in accordance with EPA Reference Methods 1-5 and 13B to demonstrate compliance with the permitted emission limitations for particulate matter and flourides, respectively. The permittee shall demonstrate compliance and submit stack test reports biennially continuing on the schedule set forth in the previous permit. For the purpose of compliance demonstration the permittee shall operate the source at maximum capacity.

The permittee shall submit a written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ shall be notified in writing at least ten (10) days prior to the scheduled test date(s) so that an observer may be afforded the opportunity to witness the test(s).

After the first successful submittal of an initial written test protocol in conjunction with the initial compliance test(s), the permittee may request that the resubmittal of a testing protocol be waived for subsequent testing by certifying in writing at least thirty (30) days prior to subsequent testing that all conditions for testing remain unchanged such that the original protocol can and will be followed.

(d) The permittee shall perform weekly maintenance checks, including a visual inspection for visible emissions. If visible emissions are detected, the permittee shall perform a Visible Emissions Evaluation (VEE), EPA Reference Method 9. The records shall be summarized and reported in accordance with 5.A.4.

5.B.9 For Emission Points AA-015 and AA-030, the permittee shall burn only natural gas as a pilot fuel to ensure compliance with the particulate matter and sulfur dioxide emission limitations

5.B.10 For Emission Points AA-027 and AA-028, the permittee shall comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR 61, Subpart R, National Emission Standards for Radon Emissions from Phosphogypsum Stacks (Attached as Appendix C) including the following requirements. (Ref.:40 CFR 61.200-210)

(a) As required by 40 CFR 61.202, all phosphogypsum generated by the permittee shall be placed in stacks. Phosphogypsum may be removed from a phosphogypsum stack only as expressly provided by this subpart. After a phosphogypsum stack has become an inactive stack, the owner or operator shall assure that the stack does not emit more than 20 pCi/(m^2-sec) (1.9 pCi/(ft^2-sec)) of radon-222 into the air. *Inactive stack* means a stack to which no further routine additions of phosphogypsum will be made and which is no longer used for water management associated with the production of phosphogypsum. If a stack has not been used for either purpose for two years, it is presumed to be inactive.

(b) As required by 40 CFR 61.203, within sixty days following the date on which a stack becomes an inactive stack, the permittee shall test the stack for radon-222 flux in accordance with the procedures described in 40 CFR Part 61, Appendix B, Method 115. DEQ shall be notified at least 30 days prior to each such emissions test so that DEQ may, at its option, observe the test. If meteorological conditions are such that a test cannot be properly conducted then, the owner or operator shall notify DEQ and test as soon as conditions permit.

(c) The permittee shall maintain the records required by 40 CFR 60.209. Within ninety days after the testing in (b) is required, the permittee shall provide DEQ with a report detailing the actions taken and the results of the radon-222 flux testing. Each report shall include the information required in 40 CFR 61.203(b)(1).

(d) Phosphogypsum may be lawfully removed from a stack only as specified in 40 CFR 61.204, 40 CFR 61.205, 40 CFR 61.206, or as future modifications to 40 CFR 61, Subpart R, allow.

(e) Before removing phosphogypsum from a stack for distribution to commerce pursuant to 40 CFR 61.204-206, or future modifications to 40 CFR 61, Subpart R, the permittee shall measure the average radium-226 concentrations as defined in 40 CFR 61.207.

(f) If any phosphogypsum will be removed and distributed in commerce pursuant to 40 CFR 61.204-206, or future modifications to 40 CFR 61, Subpart R, the permittee shall prepare a certification document as described in 40 CFR 61.208.

5.B.11 For Emission Point AA-030, the permittee shall monitor and maintain monthly records on the type, quantity, quality, and heating value (BTU/ft^3) of fuel combusted. The records shall be summarized and reported in accordance with 5.A.4.

5.B.12 For Emission Point AA-030, the permittee shall be limited to an operation of 6,504 hrs in any consecutive 12-month period. The permittee shall record the hours of operation on a monthly basis for each month and for each consecutive 12-month period in log form. The records shall be summarized and reported in accordance with 5.A.4.

5.B.13 For Emission Point AA-030, the permittee shall conduct performance test(s) and furnish the MDEQ a written report of the results of such performance test(s) biennially continuing on the schedule set forth in the previous permit. The permittee shall perform stack testing in accordance with EPA Reference Methods 7 and 10 to demonstrate compliance with the permitted emissions limitations for oxides of nitrogen and carbon monoxide, respectively. For the purpose of compliance demonstration the permittee shall operate the source at maximum capacity.

The permittee shall submit a written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ shall be notified in writing at least ten (10) days prior to the scheduled test date(s) so that an observer may be afforded the opportunity to witness the test(s).

After the first successful submittal of an initial written test protocol in conjunction with the initial compliance test(s), the permittee may request that the resubmittal of a testing protocol be waived for subsequent testing by certifying in writing at least thirty (30) days prior to subsequent testing that all conditions for testing remain unchanged such that the original protocol can and will be followed.

5.B.14 For Emission Point AA-031, the permittee shall maintain readily accessible records for for each consecutive 12-month period documenting: engine run time, total fuel usage (gallons), and the sulfur content and BTU value of the fuel.

The permittee shall maintain on site all records, data and calculations required by this section for a period of five (5) years following the date of such record and be made available for review upon request from Mississippi Department of Environmental Quality (MDEQ) personnel.

The permittee shall submit semiannual reports providing the following information:

(1) Engine run time

(2) Total fuel usage

(3) Sulfur content and BTU value of fuel used.

The permittee shall submit the reports to MDEQ Office of Pollution Control semiannually in accordance with 5.A.4.

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

None permitted.

SECTION 7. TITLE VI REQUIREMENTS

The following are applicable or potentially applicable requirements originating from Title VI of the Clean Air Act. The full text of the referenced regulations is contained in Appendix B to this permit**.**

7.1 If the permittee stores or transports class I or class II substances, the permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

(a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if being introduced into interstate commerce pursuant to § 82.106.

(b) The placement of the required warning statement must comply with the requirements pursuant to § 82.108.

(c) The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

(d) No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

7.2 If the permittee performs any of the activities described below, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliance must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

(d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the recordkeeping requirements pursuant to § 82.166. ("MVAC - like appliance" is defined at § 82.152.)

(e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

(f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

7.3 If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

7.4 If the permittee performs a service on motor (fleet) vehicles and if this service involves an ozone-depleting substance (refrigerant) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include air-tight sealed refrigeration systems used for refrigerated cargo, or air conditioning systems on passenger buses using HCFC-22 refrigerant.

7.5 The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.

APPENDIX A

List of Abbreviations Used In this Permit

APC-S-1	Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants
APC-S-2	Permit Regulations for the Construction and/or Operation of Air Emissions Equipment
APC-S-3	Regulations for the Prevention of Air Pollution Emergency Episodes
APC-S-4	Ambient Air Quality Standards
APC-S-5	Regulations for the Prevention of Significant Deterioration of Air Quality
APC-S-6	Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act
APC-S-7	Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act
BACT	Best Available Control Technology
CAM	Compliance Assurance Monitoring
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
DEQ	Mississippi Department of Environmental Quality
EPA	United States Environmental Protection Agency
gr/dscf	Grains Per Dry Standard Cubic Foot
HP	Horsepower
HAP	Hazardous Air Pollutant
lbs/hr	Pounds per Hour
M or K	Thousand
MACT	Maximum Achievable Control Technology
MM	Million
MMBtu/hr	Million British Thermal Units per Hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards For Hazardous Air Pollutants, 40 CFR 61 or National Emission Standards For Hazardous Air Pollutants for Source Categories, 40 CFR 63
NMVOC	Non-Methane Volatile Organic Compounds
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
$pCi/m^2 \cdot s$	pico(10^{-12}) curies per square meter per second
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 Φm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration, 40 CFR 52
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOC	Volatile Organic Compound