

**STATE OF MISSISSIPPI  
AIR POLLUTION CONTROL  
TITLE V PERMIT**

**TO OPERATE AIR EMISSIONS EQUIPMENT**

**THIS CERTIFIES THAT**

Tronox LLC, Hamilton Facility  
40034 Tronox Road  
Hamilton, Mississippi  
Monroe, 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 24, 2007**

**Permit Modified: MAY 01 2009**

**Effective Date: As specified herein.**

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**



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**AUTHORIZED SIGNATURE**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Expires: June 30, 2012**

**Permit No.: 1840-00035**

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**APPENDIX A LIST OF ABBREVIATIONS USED IN THIS PERMIT**

**APPENDIX B 40 CFR 82 - PROTECTION OF STRATOSPHERIC OZONE**

**APPENDIX C 40 CFR 63, SUBPART A – GENERAL PROVISIONS**

**APPENDIX D 40 CFR 63, SUBPART G – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY FOR PROCESS VENTS, STORAGE VESSELS, TRANSFER OPERATIONS, AND WASTEWATER**

**APPENDIX E 40 CFR 63, SUBPART MMM – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR PESTICIDE ACTIVE INGREDIENT PRODUCTION**

**APPENDIX F 40 CFR 63, SUBPART H -- NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY FOR EQUIPMENT LEAKS**

**APPENDIX G 40 CFR 64 – COMPLIANCE ASSURANCE MONITORING**

## 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(r) 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,
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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
	<b>TITANIUM DIOXIDE (TiO<sub>2</sub>) PLANT</b>
100	210 hp Emergency Diesel Engine for Well Pump 1
6100	80 MMBTU/hr Ore Blending Dryer with a baghouse
101	Coke Storage Silo equipped with a baghouse
102	Raw Ore Transfer System and Storage Silo equipped with a baghouse
104	Ore Conveying Baghouse
110	210 hp Emergency Diesel Engine for Well Pump 2
120	210 hp Emergency Diesel Engine for Well Pump 3
121	150 hp Emergency Diesel Engine for Well Pump 3
122	150 hp Emergency Diesel Engine for Well Pump 3
123	150 hp Emergency Diesel Engine for Well Water Pump
150	201 hp Emergency Generator for Leach Area
170	470 hp Chlorate Emergency Diesel Generator
1010	Wastewater Treatment Tank (F-568)
1234	619 hp (400 kW) Emergency Diesel Generator for Chlorine Scrubber
1020, 1030, 1032, 1040, 1050, 1060, 1070, 1080, 1081, 1090, 1120, 3090, 3120, 3140, 3170, 3190	Fugitive emissions from raw material handing operations
201	Chlorination Section Snake Scrubber/Fume Washer
202	Chlorination Section Waste Gas System Emergency Vent Stack
205	Lime Storage Silo equipped with a baghouse
207	33 MMBTU/hr No. 1 Chlorination Section Waste Gas System Incinerator with SO <sub>2</sub> Scrubber
6207	33 MMBTU/hr No. 4 Chlorination Section Waste Gas System Incinerator with SO <sub>2</sub> Scrubber
208	33 MMBTU/hr No. 2 Chlorination Section Waste Gas System Incinerator with SO <sub>2</sub> Scrubber

Emission Point	Description
6208	33 MMBTU/hr Standby Thermal Oxidizer
209	33 MMBTU/hr No. 3 Chlorination Section Waste Gas System Incinerator with SO <sub>2</sub> Scrubber
210	Chlorinator Sump Scrubber
2010	Treating Oil Tank (R-1206); 17,500 gallon Fixed Roof
2110	Hydrogen Chloride Railcar Loading
2120	Titanium Tetrachloride (TiCl <sub>4</sub> ) Handling and Storage
2140	Lime Sump (F-561)
2141	Lime Sump (F-1571)
301	4.4 MMBTU/hr Sand Dryer equipped with two (2) baghouses (S-1314 and S-1315)
302	Two (2) Oxidation Section Snake Scrubbers (D2505 Lime Scrubber and D2506 Caustic Scrubber)
6302	Oxidation Section Snake Scrubber System
303	A-line Oxygen Preheater, 5.4 MMBTU/hr
6303	Raw Pigment Packing System Exhaust equipped with a baghouse and guard filter
6304	3.5 MMBTU/hr Green Pellet Rotary Kiln equipped with a baghouse
6305	6.8 MMBTU/hr Green Pellet Dryer equipped with a baghouse
6306	Soft Scour Area baghouse and guard filter
304	B-line Oxygen Preheater, 5.4 MMBTU/hr
305	C-Line Oxygen Preheater, 5.4 MMBTU/hr
306	D-Line Oxygen Preheater, 5.4 MMBTU/hr
307	A-Line Titanium Tetrachloride (TiCl <sub>4</sub> ) "Tickle" Preheater, 9.2 MMBTU/hr
308	B-Line Titanium Tetrachloride (TiCl <sub>4</sub> ) "Tickle" Preheater, 9.2 MMBTU/hr
309	C-Line Titanium Tetrachloride (TiCl <sub>4</sub> ) "Tickle" Preheater, 9.2 MMBTU/hr
310	D-Line Titanium Tetrachloride (TiCl <sub>4</sub> ) "Tickle" Preheater, 9.2 MMBTU/hr
318	E-Line Titanium Tetrachloride (TiCl <sub>4</sub> ) "Tickle" Preheater, 9.2 MMBTU/hr
319	E-Line Oxygen Preheater, 5.4 MMBTU/hr
321	Oxidation Section TiCl <sub>4</sub> Vaporizer Fugitive Emission Capture System equipped with a venture-type

Emission Point	Description
	and paced column caustic scrubbers (D1313 and D1314)
322	Pneumatic Bulk Sand System equipped with two (2) baghouses (primary and guard)
323	F-Line Titanium Tetrachloride (TiCl <sub>4</sub> ) "Tickle" Preheater, 9.2 MMBTU/hr
324	F-Line Oxygen Preheater, 5.4 MMBTU/hr
330	E-Line Secondary Oxygen Preheater, 1.03 MMBTU/hr
331	F-Line Secondary Oxygen Preheater, 1.03 MMBTU/hr
332	A-Line Secondary Oxygen Preheater, 1.03 MMBTU/hr
333	B-Line Secondary Oxygen Preheater, 1.03 MMBTU/hr
334	C-Line Secondary Oxygen Preheater, 1.03 MMBTU/hr
335	D-Line Secondary Oxygen Preheater, 1.03 MMBTU/hr
3130	75 hp Emergency Diesel Engine
3170	Chlorine Samples
3180	Calgon Tank Batch Mixing (F-1303)
403	Finishing Section Macaroni Bin equipped with a baghouse which is vented to Emission Point 422
404	Finishing Section Old and New South Micronizers Vacuum System equipped with scrubbers
405	Finishing Section North and Middle Micronizers Vacuum System equipped with scrubbers
406	Finishing Section Treatment Tank Scrubbing System which includes three (3) treatment tanks
408	29.7 MMBTU/hr North Tunnel Dryer
409	29.7 MMBTU/hr Middle Tunnel Dryer
410	8.3 MMBTU/hr Steam Superheater
411	21.0 MMBTU/hr Ultra Low NO <sub>x</sub> Spin Flash Dryer equipped with a primary bag filter and one (1) guard filter
6411	21.0 MMBTU/hr Finishing Section Spin Flash Dryer equipped with a baghouse
6412	21.0 MMBTU/hr Finishing Section Spin Flash Dryer equipped with a baghouse
415	Finishing Section Reclaim System Baghouse which is vented to Emission Point 433
416	29.7 MMBTU/hr South Tunnel Dryer
418	Finishing Section Slurry System baghouse

Emission Point	Description
420	6.3 MMBTU/hr Steam Superheater
421	Finishing Section Process Guard Baghouse which vents to Emission Point 422
422	Finishing Section Dust Collection System with two (2) baghouses, primary and guard
423	Pigment Bulk Packaging System which vents to Emission Point 422
424	Finishing Section Micronizer Vacuum System equipped with a scrubber
6424	Train III Finishing Section Micronizer Ducon Scrubber (South)
425	Finishing Section Micronizer Vacuum System equipped with a scrubber
6425	Train III Finishing Section Micronizer Ducon Scrubber (North)
426	40 MMBTU/hr Finishing Section Spray Dryer equipped with a baghouse
430	6.3 MMBTU/hr Steam Superheater at Unit 400 Finishing Section
6430	7.85 MMBTU/hr Steam Superheat No. 1 in the Train III Finishing Section
433	Dust Collection System
6433	Train III Finishing Section Dust Collection System
436	Finishing Section Treatment Tank Scrubber
6436	Train III Finishing Section Treatment Tank Scrubber
440	6.3 MMBTU/hr Steam Superheater at Unit 400 Finishing Section
6440	8.3 MMBTU/hr Steam Superheater No. 1 in the Train III Finishing Section
441	Single High Speed Disperser Tank System equipped with a reverse jet baghouse
501	Vent Stack for Emission Points 508 and 509
502	72.0 MMBTU/hr Natural Gas Boiler which was constructed prior to 1977, and therefore is not subject to NSPS, Subpart Dc. (B-503)
505	Quality Control Laboratory equipped with a packed tower caustic scrubber
506	180.0 MMBTU/hr Natural Gas or Hydrogen Fired Boiler equipped with low NOx burners and internal flue gas recirculation (FGR). (B-3503)
6506	180.0 MMBTU/hr Natural Gas or Hydrogen Fired Boiler equipped with low NOx burners and internal flue gas recirculation (FGR).
6507	180.0 MMBTU/hr Natural Gas or Hydrogen Fired Boiler equipped with low NOx burners and internal flue gas recirculation (FGR).

Emission Point	Description
507	4.184 MMBTU/hr Portable Diesel Fired Boiler
508	36.0 MMBTU/hr Natural Gas Boiler which was constructed prior to 1977, and therefore is not subject to NSPS, Subpart Dc. Vented through Emission Point 501. (B-501)
509	36.0 MMBTU/hr Natural Gas Boiler which was constructed prior to 1977, and therefore is not subject to NSPS, Subpart Dc. Vented through Emission Point 501. (B-501)
510 and 511	Two (2) 5.4 MMBTU/hr Natural Gas Fired Emergency Generators
5020	Propane and/or Toluene Valve Fugitives (Plant-wide)
5040	Natural Gas Valve Fugitives (Plant-wide)
5092	Cooling Tower (E-2503)
5093	Cooling Tower (E-5303)
5094	Plant Three Cell Cooling Tower
5100	Fugitives from vehicles on roads (gen80)
	<b>MANGANESE PLANT</b>
	<i>This plant is no longer in operation.</i>
	<b>SODIUM CHLORATE PLANT</b>
701	Dehypochlorination Alkaline Scrubber
702	3.72 MMBTU/hr Sodium Chlorate Fluid Bed Dryer equipped with a venture-type scrubber
703	Elevator Air Filter Rotocyclone Scrubber
704	Packaging Process equipped with a scrubber
705	Line 5 Air Sweep Scrubber
706	Lines 6 and 7 Air Sweep Scrubber
728	Line 6 Hydrogen Recovery Vent with a scrubber
729	Line 7 Hydrogen Recovery Vent with a scrubber
730	6.82 MMBTU/hr Fluid Bed Dryer equipped with a venture-type scrubber
731	Lines 8 and 9 Air Sweep Scrubber
732	Line 8 Hydrogen Recovery Vent with a scrubber
733	Line 9 Hydrogen Recovery Vent with a scrubber



Emission Point	Description
734	Line 5 Hydrogen Recovery Vent with a scrubber
735	Line 10 Air Sweep Scrubber
736	Line 10 Hydrogen Recovery Vent with a scrubber
7062-7070, 7072-7075, 7077-7078	Fugitive Emissions from Salt Transfer Operations
7089-7105	Fugitive Emissions from Salt Transfer Operations
7114	HCFC-22 Equipment Leaks (6 units)
7340, 7341	Chlorate Cooling Towers
7160, 7161	Water Treatment Equipment Leaks
7350, 7351, 7352	Cell Feed Treatment Tank Vents
7360, 7361, 7362	15% Hydrogen Chloride Wash Tanks
7380	Cell Pump-out System
7410	Line 5 Cooler and Scrubber Tanks Vents
7411	Line 6 Cooler and Scrubber Tanks Vents
7412	Line 7 Cooler and Scrubber Tanks Vents
7413	Line 8 Cooler and Scrubber Tanks Vents
7414	Line 9 Cooler and Scrubber Tanks Vents
7415	Line 10 Cooler and Scrubber Tanks Vents
7470, 7471	Hydrogen Compression Vents
	<b>SYNTHETIC RUTILE RECOVERY PLANT</b>
801	6.0 MMBTU/hr Fluid Bed Dryer equipped with a baghouse and a caustic scrubber. The emissions from the fluid bed roaster pilot plant are also routed through the caustic scrubber and emission point 801.
802	Synthetic Rutile Product Silo equipped with a baghouse
803	Fluid Bed Roaster Pilot Plant with an HCl recovery column (sometimes called scrubber) which is a part of the process. The pilot plant is vented to emission point 801.
6804	80 MMBTU/hr Roaster No. 1 equipped with a caustic scrubber
6805	80 MMBTU/hr Roaster No. 1 equipped with a caustic scrubber

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
100	APC-S-1, Section 3.4(a)(1)	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
6100	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.025 gr/dscf, not to exceed 0.96 lbs/hr and 4.20 tpy
		3.B.11		
	NSPS, Subpart A, 40 CFR 60	3.B.12	SO <sub>2</sub>	0.048 lb/hr and 0.21 tpy
	NSPS, Subpart UUU, 40 CFR 60.730		NO <sub>x</sub>	8.0 lb/hr and 35.04 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
		3.B.13	CO	1.68 lb/hr and 7.36 tpy
			VOC	0.44 lb/hr and 1.93 tpy
			Opacity	10%
			Fuel	Natural Gas Only
101	Permit to Construct issued on June 28, 1994	3.B.1	PM/PM <sub>10</sub>	1.0 lb/hr and 4.38 tpy
102	Permit to Operate issued on September 22, 1992	3.B.2	PM/PM <sub>10</sub>	1.0 lb/hr and 4.38 tpy
104	APC-S-1, Section 3.6(a)	3.B.5	PM	E=4.1(p) <sup>0.67</sup>
110	APC-S-1, Section 3.4(a)(1)	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
120	APC-S-1, Section 3.4(a)(1)	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
121	APC-S-1, Section 3.4(a)(1)	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
122	APC-S-1, Section 3.4(a)(1)	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
123	APC-S-1, Section 3.4(a)(1)	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
1234	APC-S-1, Section 3.4(a)(1)	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
	NSPS Subpart IIII, 40 CFR 60.4200(a)(2), 60.4205(b), and 60.4211(c)	3.B.35	NMHC + NO <sub>x</sub> , CO, PM	Comply with §60.4202 by purchasing a certified engine
	NSPS Subpart IIII, 40 CFR 60.4211(e)	3.B.36	Hours of operation	≤ 100 hr/yr for maintenance checks and readiness testing. No limit for emergency use.

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
1234	NSPS Subpart IIII, 40 CFR 60.4207(a)	3.B.37	Fuel requirements	Beginning Oct. 1, 2007, 500 ppm sulfur with minimum cetane index of 40 or maximum aromatic content of 35% volume
	NSPS Subpart IIII, 40 CFR 60.4207(b)	3.B.37	Fuel requirements	Beginning Oct. 1, 2010, 15 ppm sulfur with minimum cetane index of 40 or maximum aromatic content of 35% volume
	MACT Subpart ZZZZ, 40 CFR 63.6585 and 63.6590(b)	3.B.38	HAP	Initial notification requirements only
150	APC-S-1, Section 3.4(a)(1)	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
170	Permit to Construct issued September 8, 1999	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 3.4(a)(1)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.25 3.B.27	Hours of operation	< 500 hours/year
201	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.80 lb/hr and 3.50 tpy
			CO	20.0 lb/hr and 87.6 tpy
			Chlorine	1.0 lb/hr and 4.38 tpy
			HCl	1.0 lb/hr and 4.38 tpy
*202	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit on December 19, 2003.  APC-S-1, Section 4.2(a)	3.B.4 3.B.6 3.B.8 3.B.11 3.B.22 3.B.23 3.B.33	PM/PM <sub>10</sub>	10.0 lb/hr
			SO <sub>2</sub>	2.0 lb/hr
			NO <sub>x</sub>	2.0 lb/hr
			CO	19,000 lb/hr * not to exceed 7072 tpy
			TRS	1,000 lb/hr and facility-wide limit of 155.6 tpy
			Chlorine	2.0 lb/hr

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
			HCl	15.0 lbs/hr
			Hours of Operation	*1,861 hours /year
			SO <sub>2</sub>	500 ppmv
205	PSD Construction Permit issued on September 22, 1992	3.B.2	PM/PM <sub>10</sub>	0.10 lb/hr and 0.44 tpy
*207	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart Dc, 40 CFR 60.40c and 60.48c(g)	3.B.6  3.B.7  3.B.11  3.B.23  3.B.33	PM/PM <sub>10</sub>  SO <sub>2</sub>  NO <sub>x</sub>  CO  VOC  TRS  Chlorine  HCl  pH & flow	3.0 lb/hr and 13.14 tpy  5.0 lb/hr and 21.90 tpy  8.0 lb/hr and 35.04 tpy  6.0 lb/hr and 26.28 tpy *Combined limited of 10.63 tpy, (Emission Points 207, 208, 209, 6207, and 6208)  1.0 lb/hr and 4.38 tpy  Facility-wide limit of 155.6 tpy  2.0 lb/hr and 8.76 tpy  2.0 lb/hr and 8.76 tpy  ≥ 6.8 and ≥ 60 gpm
*208	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart Dc, 40 CFR 60.40c and 60.48c(g)	3.B.6  3.B.7  3.B.11  3.B.23  3.B.33	PM/PM <sub>10</sub>  SO <sub>2</sub>  NO <sub>x</sub>  CO  VOC  TRS  Chlorine	3.0 lb/hr and 13.14 tpy  5.0 lb/hr and 21.90 tpy  8.0 lb/hr and 35.04 tpy  6.0 lb/hr and 26.28 tpy *Combined limited of 10.63 tpy, (Emission Points 207, 208, 209, 6207, and 6208)  1.0 lb/hr and 4.38 tpy  Facility-wide limit of 155.6 tpy  2.0 lb/hr and 8.76 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
			HCl	2.0 lb/hr and 8.76 tpy
			pH & flow	≥ 6.8 and ≥ 60 gpm
*209	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart Dc, 40 CFR 60.40c and 60.48c(g)  APC-S-1, Section 4.2(a)	3.B.6  3.B.7  3.B.8  3.B.11  3.B.23  3.B.33	PM/PM <sub>10</sub>	3.0 lb/hr and 13.14 tpy
			SO <sub>2</sub>	5.0 lb/hr and 21.90 tpy
			NO <sub>x</sub>	8.0 lb/hr and 35.04 tpy
			CO	6.0 lb/hr and 26.28 tpy *Combined limited of 10.63 tpy, (Emission Points 207, 208, 209, 6207, and 6208)
			VOC	1.0 lb/hr and 4.38 tpy
			TRS	Facility-wide limit of 155.6 tpy
			Chlorine	2.0 lb/hr and 8.76 tpy
			HCl	2.0 lb/hr and 8.76 tpy
			pH & flow	≥ 6.8 and ≥ 60 gpm
			SO <sub>2</sub>	500 ppmv
*6207	*Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart Dc, 40 CFR 60.40c and 60.48c(g)	3.B.4  3.B.7  3.B.11  3.B.23  3.B.33	PM/PM <sub>10</sub>	2.62 lb/hr and 11.47 tpy
			SO <sub>2</sub>	0.63 lb/hr and 2.74 tpy
			NO <sub>x</sub>	2.95 lb/hr and 12.90 tpy
			CO	Combined limited of 10.63 tpy, (Emission Points 207, 208, 209, 6207, and 6208)
			VOC	0.32 lb/hr and 1.39 tpy
			TRS	Facility-wide limit of 155.6 tpy
			Chlorine	0.35 lb/hr and 1.53 tpy
			HCl	0.08 lb/hr and 0.36 tpy
			pH & flow	≥ 6.8 and ≥ 60 gpm

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
*6208	*Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	2.62 lb/hr and 11.47 tpy
		3.B.11		
		3.B.23	SO <sub>2</sub>	0.63 lb/hr and 2.74 tpy
		3.B.33	NO <sub>x</sub>	2.95 lb/hr and 12.9 tpy
			CO	6.0 lb/hr and 26.28 tpy *Combined limited of 10.63 tpy, (Emission Points 207, 208, 209, 6207, and 6208)
			VOC	0.32 lb/hr and 1.39 tpy
			TRS	Facility-wide limit of 155.6 tpy
			Chlorine	0.35 lb/hr and 1.53 tpy
			HCl	0.08 lb/hr and 0.36 tpy
	pH & flow	≥ 6.8 and ≥ 60 gpm		
210	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.5 lb/hr and 2.19 tpy
			CO	20.0 lb/hr and 87.6 tpy
			Chlorine	1.0 lb/hr and 4.38 tpy
			HCl	1.0 lb/hr and 4.38 tpy
*301	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  APC-S-1, Section 4.2(a)	3.B.4	PM/PM <sub>10</sub>	0.5 lb/hr and 2.19 tpy
		3.B.6	SO <sub>2</sub>	0.5 lb/hr and 2.19 tpy
		3.B.8	NO <sub>x</sub>	1.16 lb/hr and 5.06 tpy
		3.B.11	CO	1.03 lb/hr and 4.52 tpy
		3.B.13	VOC	1.0 lb/hr and 4.53 tpy
		3.B.32	Fuel	Natural Gas, Propane & Hydrogen Only *Natural Gas Only
			SO <sub>2</sub>	500 ppmv

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
302	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	3.0 lb/hr and 13.14 tpy
			Chlorine	1.0 lb/hr and 4.38 tpy
			HCl	1.0 lb/hr and 4.38 tpy
6302	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4 3.B.11	PM/PM <sub>10</sub>	3.0 lb/hr and 13.14 tpy
			Chlorine	1.0 lb/hr and 4.38 tpy
			HCl	1.0 lb/hr and 4.38 tpy
6303	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4 3.B.11	PM/PM <sub>10</sub>	2.0 lb/hr and 8.76 tpy
6304	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart A, 40 CFR 60  NSPS, Subpart UUU, 40 CFR 60.730	3.B.4 3.B.11 3.B.12 3.B.13	PM/PM <sub>10</sub>	0.025 gr/dscf, not to exceed 0.026 lbs/hr and 0.12 tpy
			SO <sub>2</sub>	0.002 lb/hr and 0.009 tpy
			NO <sub>x</sub>	0.35 lb/hr and 1.52 tpy
			CO	0.29 lb/hr and 1.27 tpy
			VOC	0.019 lb/hr and 0.083 tpy
			Opacity	10%
			Fuel	Natural Gas Only
6305	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart A, 40 CFR 60  NSPS, Subpart UUU, 40 CFR 60.730	3.B.4 3.B.11 3.B.12 3.B.13	PM/PM <sub>10</sub>	0.052 lb/hr and 0.23 tpy
			SO <sub>2</sub>	0.004 lb/hr and 0.013 tpy
			NO <sub>x</sub>	0.684 lb/hr and 3.0 tpy
			CO	0.574 lb/hr and 2.52 tpy
			VOC	0.038 lb/hr and 0.165 tpy
			Opacity	10%
			Fuel	Natural Gas Only
6306	Beginning upon receipt of certification of construction and limited by PSD Construction	3.B.4	PM/PM <sub>10</sub>	0.27 lb/hr and 1.18 tpy



Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
	Permit issued on December 19, 2003.	3.B.11		
*303	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.11 lb/hr and 0.5 tpy
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
*304	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.11 lb/hr and 0.5 tpy
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
*305	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6		
		3.B.11	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.13	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
			CO	1.5 lb/hr and 6.57 tpy *0.11 lb/hr and 0.5 tpy
			VOC	0.5 lb/hr and 2.19 tpy
	Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only		
*306	PSD Construction Permit issued on November 14,	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
	1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.11 lb/hr and 0.5 tpy
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
*307	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.19 lb/hr and 0.85 tpy
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
*308	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.19 lb/hr and 0.85 tpy
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
*309	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.19 lb/hr and 0.85 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
*310	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.19 lb/hr and 0.85 tpy
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
*318	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.19 lb/hr and 0.85 tpy
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
*319	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.11 lb/hr and 0.5 tpy
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
321	Permit to Operate issued on September 22, 1992	3.B.2	PM/PM <sub>10</sub>	1.0 lb/hr and 4.38 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
		3.B.20	Chlorine	1.0 lb/hr and 4.38 tpy
			HCl	1.0 lb/hr and 4.38 tpy
			pH	≥ 6.8
322	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy
*323	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.19 lb/hr and 0.85 tpy
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
*324	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.20 lb/hr and 0.876 tpy
		3.B.6	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
		3.B.11	NO <sub>x</sub>	3.0 lb/hr and 13.14 tpy
		3.B.13	CO	1.5 lb/hr and 6.57 tpy *0.11 lb/hr and 0.5 tpy
			VOC	0.5 lb/hr and 2.19 tpy
			Fuel	Natural Gas, Propane, and Hydrogen Only *Natural Gas Only
330	APC-S-1, Section 3.4(a)(1)  APC-S-1, Section 4.1(a)	3.B.9	PM	0.6 lbs/MMBTU
		3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
		3.B.16	Fuel	Natural Gas, Propane, or Hydrogen Only
331	Permit to Construct issued on February 13, 1999  APC-S-1, Section 3.4(a)(1)  APC-S-1, Section 4.1(a)	3.B.9	PM	0.6 lbs/MMBTU
		3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
		3.B.16	Fuel	Natural Gas, Propane, or Hydrogen Only

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
		3.B.24		
332	Permit to Construct issued on February 13, 1996 APC-S-1, Section 3.4(a)(1) APC-S-1, Section 4.1(a)	3.B.9	PM	0.6 lbs/MMBTU
		3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
		3.B.16	Fuel	Natural Gas, Propane, or Hydrogen Only
		3.B.24		
333	Permit to Construct issued on February 13, 1996 APC-S-1, Section 3.4(a)(1) APC-S-1, Section 4.1(a)*	3.B.9	PM	0.6 lbs/MMBTU
		3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
		3.B.16	Fuel	Natural Gas, Propane, or Hydrogen Only
		3.B.24		
334	Permit to Construct issued on February 13, 1996 APC-S-1, Section 3.4(a)(1) APC-S-1, Section 4.1(a)	3.B.9	PM	0.6 lbs/MMBTU
		3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
		3.B.16	Fuel	Natural Gas, Propane, or Hydrogen Only
		3.B.24		
335	Permit to Construct issued on February 13, 1996 APC-S-1, Section 3.4(a)(1) APC-S-1, Section 4.1(a)	3.B.9	PM	0.6 lbs/MMBTU
		3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
		3.B.16	Fuel	Natural Gas, Propane, or Hydrogen Only
		3.B.24		
3130	APC-S-1, Section 3.4(a)(1) APC-S-1, Section 4.1(a)	3.B.9	PM	0.6 lbs/MMBTU
		3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
404	Permit to Construct issued on June 28, 1988, and modified through Permit to Operate issued on June 8, 1993.	3.B.2	PM/PM <sub>10</sub>	1.0 lb/hr and 4.38 tpy
405	Permit to Operate issued on September 22, 1992, and modified on June 8, 1993.	3.B.2	PM/PM <sub>10</sub>	1.215 lb/hr and 5.32 tpy
406	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy
		3.B.20	NO <sub>x</sub>	10.0 lb/hr and 43.80 tpy
			Chlorine	0.01 lb/hr and 0.04 tpy
			HCl	0.01 lb/hr and 0.04 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
			pH	≥ 6.8
*408	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  APC-S-1, Section 4.2(a)	3.B.6	PM/PM <sub>10</sub>	1.90 lb/hr and 8.32 tpy
		3.B.8	SO <sub>2</sub>	0.017 lb/hr and 0.07 tpy
		3.B.11	NO <sub>x</sub>	2.79 lb/hr and 11.60 tpy
		3.B.16	CO	0.59 lb/hr and 2.45 tpy *0.63 lb/hr and 2.76 tpy
			VOC	0.22 lb/hr and 0.92 tpy
		Fuel	Natural Gas, Propane, & Hydrogen Only *Natural Gas Only	
		SO <sub>2</sub>	500 ppmv	
*409	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  APC-S-1, Section 4.2(a)	3.B.6	PM/PM <sub>10</sub>	1.90 lb/hr and 8.32 tpy
		3.B.8	SO <sub>2</sub>	0.017 lb/hr and 0.07 tpy
		3.B.11	NO <sub>x</sub>	2.79 lb/hr and 11.60 tpy
		3.B.16	CO	0.59 lb/hr and 2.45 tpy *0.63 lb/hr and 2.76 tpy
			VOC	0.22 lb/hr and 0.92 tpy
		Fuel	Natural Gas, Propane, & Hydrogen Only *Natural Gas Only	
		SO <sub>2</sub>	500 ppmv	
410	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.5 lb/hr and 2.19 tpy
		3.B.16	SO <sub>2</sub>	0.1 lb/hr and 0.438 tpy
			NO <sub>x</sub>	5.0 lb/hr and 21.9 tpy
			CO	5.0 lb/hr and 21.9 tpy
			VOC	1.0 lb/hr and 4.38 tpy
			Fuel	Natural Gas, Propane, or Hydrogen Only
411	APC-S-1, Section 4.1(a)	3.B.10	PM/PM <sub>10</sub>	0.015 gr/dscf

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
	NSPS, Subpart UUU, 40 CFR 60.730, 60.732(a) & (b), 60.733, 60.734 (b), 60.735(a) & (c), and 60.736(a) & (b).	3.B.12	SO <sub>2</sub>	4.8 lbs/MMBTU
		3.B.16	NO <sub>x</sub>	0.055 lbs/MMBTU
		3.B.32	CO	0.042 lbs/MMBTU
			Opacity	10%
			Fuel	Natural Gas, Propane, or Hydrogen Only
6411	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart A, 40 CFR 60  NSPS, Subpart UUU, 40 CFR 63.730	3.B.4	PM/PM <sub>10</sub>	0.025 gr/dscr, not to exceed 0.22 lbs/hr and 0.96 tpy
		3.B.11		
		3.B.12	SO <sub>2</sub>	0.01 lb/hr and 0.06 tpy
		3.B.13	NO <sub>x</sub>	1.16 lb/hr and 5.08 tpy
			CO	0.88 lb/hr and 3.85 tpy
			VOC	0.12 lb/hr and 0.52 tpy
			Opacity	10%
			Fuel	Natural Gas Only
6412	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart A, 40 CFR 60  NSPS, Subpart UUU, 40 CFR 63.730	3.B.4	PM/PM <sub>10</sub>	0.025 gr/dscf, not to exceed 0.22 lb/hr and 0.96 tpy
		3.B.11		
		3.B.12	SO <sub>2</sub>	0.01 lb/hr and 0.06 tpy
		3.B.13	NO <sub>x</sub>	1.16 lb/hr and 5.08 tpy
			CO	0.88 lb/hr and 3.85 tpy
			VOC	0.12 lb/hr and 0.52 tpy
			Opacity	10%
			Fuel	Natural Gas Only
*416	PSD Construction Permit issued on November 14, 1995  *Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  APC-S-1, Section 4.2(a)	3.B.6	PM/PM <sub>10</sub>	0.90 lb/hr and 8.32 tpy
		3.B.8	SO <sub>2</sub>	0.017 lb/hr and 0.07 tpy
		3.B.11	NO <sub>x</sub>	2.79 lb/hr and 11.60 tpy
		3.B.16	CO	0.59 lb/hr and 2.76 tpy *0.63 lb/hr and 2.76 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
			VOC	0.22 lb/hr and 0.92 tpy
			Fuel	Natural Gas, Propane, & Hydrogen Only *Natural Gas Only
420	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy
		3.B.16	SO <sub>2</sub>	0.10 lb/hr and 0.438 tpy
			NO <sub>x</sub>	5.0 lb/hr and 21.9 tpy
			CO	5.0 lb/hr and 21.9 tpy
			VOC	1.0 lb/hr and 4.38 tpy
			Fuel	Natural Gas, Propane, or Hydrogen Only
422	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	1.0 lb/hr and 4.38 tpy
424	PSD Construction Permit issued on September 22, 1992	3.B.2	PM/PM <sub>10</sub>	2.0 lb/hr and 8.76 tpy
6424	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	2.0 lb/hr and 8.76 tpy
		3.B.11		
425	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	2.0 lb/hr and 8.76 tpy
6425	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	2.0 lb/hr and 8.76 tpy
		3.B.11		
*426	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.025 gr/dscf
		3.B.11	SO <sub>2</sub>	1.0 lb/hr and 4.38 tpy
	*Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.12	NO <sub>x</sub>	12 lb/hr and 52.56 tpy
	NSPS, Subpart UUU, 40 CFR 60.730, 60.732(a) & (b), 60.733, 60.734 (b), 60.735(c), and 60.736(b)(1) & (2).	3.B.16	CO	10 lb/hr and 43.8 tpy *2.11 lb/hr and 9.24 tpy
			VOC	2.0 lb/hr and 8.76 tpy
			Opacity	10%
			Fuel	Natural Gas, Propane, & Hydrogen Only *Natural Gas Only



Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard	
430	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy	
		3.B.16	SO <sub>2</sub>	0.20 lb/hr and 0.438 tpy	
			NO <sub>x</sub>	5.0 lb/hr and 21.9 tpy	
			CO	5.0 lb/hr and 21.9 tpy	
			VOC	1.0 lb/hr and 4.38 tpy	
			Fuel	Natural Gas, Propane, or Hydrogen Only	
6430	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy	
		3.B.11	SO <sub>2</sub>	0.2 lb/hr and 0.44 tpy	
			3.B.13	NO <sub>x</sub>	5.0 lb/hr and 21.9 tpy
				CO	0.16 lb/hr and 0.72 tpy
				VOC	1.0 lb/hr and 4.38 tpy
				Fuel	Natural Gas Only
433	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy	
6433	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy	
		3.B.11			
436	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy	
		3.B.20	NO <sub>x</sub>	15.0 lb/hr and 65.7 tpy	
			Chlorine	1.0 lb/hr and 4.38 tpy	
			HCl	1.0 lb/hr and 4.38 tpy	
			pH	≥ 6.8	
6436	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy	
		3.B.11	NO <sub>x</sub>	15.0 lb/hr and 65.7 tpy	
			3.B.20	Chlorine	1.0 lb/hr and 4.38 tpy
				HCl	1.0 lb/hr and 4.38 tpy
				pH	≥ 6.8

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
440	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy
		3.B.16	SO <sub>2</sub>	0.20 lb/hr and 0.438 tpy
			NO <sub>x</sub>	5.0 lb/hr and 21.9 tpy
			CO	5.0 lb/hr and 21.9 tpy
			VOC	1.0 lb/hr and 4.38 tpy
			Fuel	Natural Gas, Propane, or Hydrogen Only
6440	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy
		3.B.11	SO <sub>2</sub>	0.20 lb/hr and 0.44 tpy
			NO <sub>x</sub>	5.0 lb/hr and 21.9 tpy
		3.B.13	CO	0.17 lb/hr and 0.76 tpy
			VOC	1.0 lb/hr and 4.38 tpy
			Fuel	Natural Gas Only
441	APC-S-1, Section 3.6(a)	3.B.5	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy
501	Permit to Construct issued on April 29, 1997	3.B.14		*Total emissions from 508 and 509, which vent through 501
502	APC-S-1, Section 3.4(a)(2)	3.B.9	PM	$E=0.8808*I^{0.1667}$
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
		3.B.17		
		3.B.34		
505	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy
		3.B.20	Chlorine	1.0 lb/hr and 4.38 tpy
			HCl	1.0 lb/hr and 4.38 tpy
			pH	≥ 6.8
506	PSD Construction Permit issued on November 14, 1995	3.B.6	PM/PM <sub>10</sub>	5.0 lb/hr and 21.9 tpy
		3.B.15	SO <sub>2</sub>	1.5 lb/hr and 6.57 tpy
		3.B.34	NO <sub>x</sub>	0.1 lb/MMBTU, not to

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
	and (e)(4); 60.48b(b); 60.48b(c); 60.48b(d); 60.48b(e) and (e)(2); 60.48b(f); 60.48b(g); 60.49b(a); 60.49b(b); 60.49b(c); 60.49b(d); 60.49b(g); 60.49b(h); 60.49b(i); and 60.49b(o).			exceed 18 lb/hr and 78.84 tpy
			CO	22 lb/hr and 96.36 tpy
			VOC	6 lb/hr and 26.28 tpy
			Fuel	Natural Gas Only
			% FGR	≥ 15%
*506	*Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart Db, 40 CFR 60.40b; 60.44b(a); 60.44b(h); 60.44b(i); 60.46b(c); 60.46b(e), (e)(1), and (e)(4); 60.48b(b); 60.48b(c); 60.48b(d); 60.48b(e) and (e)(2); 60.48b(f); 60.48b(g); 60.49b(a); 60.49b(b); 60.49b(c); 60.49b(d); 60.49b(g); 60.49b(h); 60.49b(i); and 60.49b(o).	3.B.4  3.B.11  3.B.15  3.B.34	PM/PM <sub>10</sub>	2.16 lb/hr and 9.46 tpy
			SO <sub>2</sub>	0.11 lb/hr and 0.47 tpy
			NO <sub>x</sub>	12.60 lb/hr for Hydrogen-natural gas mixtures
				6.30 lb/hr for natural gas only
				55.19 tpy
			CO	26.64 lbs/hr for hydrogen-natural gas mixtures
				13.32 lb/hr for natural gas only
				116.68 tpy
			VOC	0.99 lb/hr and 4.34 tpy
			Fuel	Natural Gas
				Hydrogen-natural gas mixture, hydrogen content shall not exceed 35%
			% FGR	≥ 15%
6506	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart A, 40 CFR 60  NSPS, Subpart Db, 40 CFR 60.40b	3.B.4  3.B.11  3.B.15  3.B.17  3.B.34	PM/PM <sub>10</sub>	2.16 lb/hr and 9.46 tpy
			SO <sub>2</sub>	0.11 lb/hr and 0.47 tpy
			NO <sub>x</sub>	12.60 lb/hr for Hydrogen-natural gas mixtures
				6.30 lb/hr for natural

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
				gas only
				55.19 tpy
			CO	26.64 lbs/hr for hydrogen-natural gas mixtures
				13.32 lb/hr for natural gas only
				116.68 tpy
			VOC	0.99 lb/hr and 4.34 tpy
			Fuel	Natural Gas
				Hydrogen-natural gas mixture, hydrogen content shall not exceed 35%
			% FGR	≥ 15%
6507	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart A, 40 CFR 60  NSPS, Subpart Db, 40 CFR 60.40b	3.B.4	PM/PM <sub>10</sub>	2.16 lb/hr and 9.46 tpy
		3.B.11	SO <sub>2</sub>	0.11 lb/hr and 0.47 tpy
		3.B.15	NO <sub>x</sub>	12.60 lb/hr for Hydrogen-natural gas mixtures
		3.B.17		6.30 lb/hr for natural gas only
		3.B.34		55.19 tpy
			CO	26.64 lbs/hr for hydrogen-natural gas mixtures
				13.32 lb/hr for natural gas only
				116.68 tpy
			VOC	0.99 lb/hr and 4.34 tpy
			Fuel	Natural Gas
				Hydrogen-natural gas mixture, hydrogen content shall not

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
				exceed 35%
			% FGR	≥ 15%
507	APC-S-1, Section 3.4(a)(1)	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
508	APC-S-1, Section 3.4(a)(2)	3.B.9	PM	$E=0.8808*I^{0.1667}$
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
	*Emission from 508 vent through 501	3.B.16	Fuel	Natural Gas, Propane, or Hydrogen Only
		3.B.17		
		3.B.34		
509	Permit to Construct issued on April 29, 1997	3.B.9	PM	$E=0.8808*I^{0.1667}$
	APC-S-1, Section 3.4(a)(2)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.14		
	*Emissions from 509 vent through 501	3.B.16		
		3.B.17		
		3.B.34		
510 and 511	APC-S-1, Section 3.4(a)(1)	3.B.9	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
		3.B.16	Hours of Operation	< 500 hours/year
		3.B.25	Fuel	Natural Gas, Propane, or Hydrogen Only
701	Permit to Construct issued on March 14, 1995	3.B.18	PM/PM <sub>10</sub>	0.50 lb/hr and 2.19 tpy
	NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.29	Chlorine	5.0 lb/hr and 21.90 tpy
		3.B.30		
		3.B.31		
702	Permit to Construct issued on July 25, 2995.	3.B.3	PM/PM <sub>10</sub>	1.0 lb/hr and 4.38 tpy
	Beginning upon receipt of certification of	3.B.4	SO <sub>2</sub>	0.1 lb/hr and 0.44 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
	construction and limited by PSD Construction Permit issued on December 19, 2003.  APC-S-1, Section 4.2(a)	3.B.8	NO <sub>x</sub>	1.0 lb/hr and 4.38 tpy
		3.B.11	CO	8.0 lb/hr and 35.0 tpy
		3.B.16	VOC	2.0 lb/hr and 8.76 tpy
			SO <sub>2</sub>	500 ppmv
			Fuel	Natural Gas, Propane, or Hydrogen Only
703	Permit to Construct issued on July 25, 1995	3.B.3	PM/PM <sub>10</sub>	0.85 lb/hr and 3.72 tpy
704	Permit to Construct issued on July 25, 1995	3.B.3	PM/PM <sub>10</sub>	0.85 lb/hr and 3.72 tpy
*705	Permit to Construct issued on July 25, 1995  Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.3	PM/PM <sub>10</sub>	0.5 lb/hr and 2.19 tpy
		3.B.4	Chlorine	1.0 lb/hr and 4.38 tpy *≤ 20 ppmv
		3.B.11		
		3.B.29		
		3.B.30		
		3.B.31		
706	Permit to Construct issued on July 25, 1995.  NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.3	PM/PM <sub>10</sub>	0.5 lb/hr and 2.19 tpy
		3.B.29	Chlorine	1.0 lb/hr and 4.38 tpy
		3.B.30		
		3.B.31		
728	Permit to Construct issued on July 25, 1995.  NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.3	Chlorine	1.0 lb/hr and 4.38 tpy
		3.B.29		
		3.B.30		
		3.B.31		
729	Permit to Construct issued on July 25, 1995.  NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.3	Chlorine	1.0 lb/hr and 4.38 tpy
		3.B.29		
		3.B.30		
		3.B.31		
*730	Permit to Construct issued on July 25, 1995.	3.B.3	PM/PM <sub>10</sub>	1.0 lb/hr and 4.38 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
	*Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.	3.B.4	SO <sub>2</sub>	0.1 lb/hr and 0.44 tpy
3.B.11		NO <sub>x</sub>	1.0 lb/hr and 4.38 tpy	
3.B.16		CO	12 lb/hr and 52.56 tpy *8.29 lb/hr and 36.30 tpy	
		VOC	2.0 lb/hr and 8.76 tpy	
		Fuel	Natural Gas, Propane, or Hydrogen Only	
731	Permit to Construct issued on July 25, 1995. NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.3	PM/PM <sub>10</sub>	0.5 lb/hr and 2.19 tpy
3.B.29		Chlorine	1.0 lb/hr and 4.38 tpy	
3.B.30				
3.B.31				
732	Permit to Construct issued on July 25, 1995. NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.3	Chlorine	1.0 lb/hr and 4.38 tpy
3.B.29				
3.B.30				
3.B.31				
733	Permit to Construct issued on July 25, 1995. NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.3	Chlorine	1.0 lb/hr and 4.38 tpy
3.B.29				
3.B.30				
3.B.31				
734	Permit to Construct issued on July 25, 1995. NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.3	Chlorine	1.0 lb/hr and 4.38 tpy
3.B.29				
3.B.30				
3.B.31				
735	Permit to Construct issued on July 25, 1995. NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.3	PM/PM <sub>10</sub>	0.5 lb/hr and 2.19 tpy
3.B.29		Chlorine	1.0 lb/hr and 4.38 tpy	
3.B.30				
3.B.31				

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
736	Permit to Construct issued on July 25, 1995.  NESHAP, 40 CFR 63, Subpart(s) H and MMM	3.B.3  3.B.29  3.B.30  3.B.31	Chlorine	1.0 lb/hr and 4.38 tpy
7089 – 7105	PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart OOO, 40 CFR 60.670, 60.672(b), 60.673, 60.675(c), and 60.676(f)	3.B.19	Opacity	10%
7113	PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart OOO, 40 CFR 60.670, 60.672(b), 60.673, 60.675(c), and 60.676(f)	3.B.19	Opacity	10%
7160, 7161	NESHAP, 40 CFR 63, Subparts H and MMM	3.B.29  3.B.30  3.B.31	Chlorine	See Permit Condition 3.B.29
7340, 7341	NESHAP, 40 CFR 63, Subparts H and MMM	3.B.29  3.B.30  3.B.31	Chlorine  HCl	See Permit Condition 3.B.29
7350, 7351, 7352	NESHAP, 40 CFR 63, Subparts H and MMM	3.B.29  3.B.30  3.B.31	Chlorine	See Permit Condition 3.B.29
7360, 7361, 7362	NESHAP, 40 CFR 63, Subparts H and MMM	3.B.29  3.B.30  3.B.31	Chlorine  HCl	See Permit Condition 3.B.29
7380	NESHAP, 40 CFR 63, Subparts H and MMM	3.B.29  3.B.30  3.B.31	Chlorine	See Permit Condition 3.B.29
7410, 7411, 7412,	NESHAP, 40 CFR 63, Subparts H and MMM	3.B.29	Chlorine	See Permit Condition 3.B.29



Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
7413, 7414, 7415		3.B.30  3.B.31		
7470, 7471	NESHAP, 40 CFR 63, Subparts H and MMM	3.B.29  3.B.30  3.B.31	Chlorine	See Permit Condition 3.B.29
801	Permit to Construct issued on April 11, 1989, and modified through Permit to Operate issued on September 22, 1992.  NSPS, Subpart UUU, 40 CFR 60.730, 60.732(a) & (b), 60.733, 60.734 (b) & (c), and 60.736(b)(1) & (c).  APC-S-1, Section 4.2(a)	3.B.8	PM/PM <sub>10</sub>	0.025 gr/dscf
		3.B.12	SO <sub>2</sub>	0.1 lb/hr and 0.44 tpy
		3.B.16	NO <sub>x</sub>	5.0 lb/hr and 21.90 tpy
		3.B.20	CO	5.0 lb/hr and 21.90 tpy
		3.B.21	VOC	5.0 lb/hr and 21.90 tpy
			HCl	0.10 lb/hr and 0.44 tpy
			pH	≥ 6.8
			Opacity	10%
			Fuel	Natural Gas, Propane, or Hydrogen Only
802	Permit to Operate issued on September 22, 1992, and modified on June 8, 1993.	3.B.2	PM/PM <sub>10</sub>	1.215 lb/hr and 5.32 tpy
803	Permit to Operate issued on March 2, 1999, and modified on April 9, 2002.  NSPS, Subpart UUU, 40 CFR 60.730, 60.732(a) & (b), 60.733, 60.734 (b), 60.735(c), and 60.736(b)(1) & (2).  APC-S-1, Section 4.1(a)	3.B.10	SO <sub>2</sub>	4.8 lbs/MMBTU
		3.B.12	PM/PM <sub>10</sub>	0.025 gr/dscf
		3.B.26	Opacity	10%
6804	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart A, 40 CFR 60  NSPS, Subpart UUU, 40 CFR 63.730	3.B.4	PM/PM <sub>10</sub>	0.04 gr/dscr, not to exceed 0.17 lb/hr and 0.745 tpy
		3.B.11		
		3.B.12	SO <sub>2</sub>	5.0 lb/hr and 21.9 tpy
		3.B.13	NO <sub>x</sub>	18 lb/hr and 78.80 tpy
		3.B.28	CO	11.0 lb/hr and 48.20 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
			VOC	0.99 lb/hr and 4.33 tpy
			HCl	1.0 lb/hr and 4.38 tpy
			Fuel	Natural gas residual coke only
			pH & Flow	≥ 6.8 and ≥60 gpm
6805	Beginning upon receipt of certification of construction and limited by PSD Construction Permit issued on December 19, 2003.  NSPS, Subpart A, 40 CFR 60  NSPS, Subpart UUU, 40 CFR 63.730	3.B.4  3.B.11  3.B.12  3.B.13  3.B.28	PM/PM <sub>10</sub>   SO <sub>2</sub>  NO <sub>x</sub>  CO  VOC  HCl  Fuel  pH & Flow	0.04 gr/dscr, not to exceed 0.17 lb/hr and 0.745 tpy   5.0 lb/hr and 21.9 tpy  18 lb/hr and 78.80 tpy  11.0 lb/hr and 48.20 tpy  0.99 lb/hr and 4.33 tpy  1.0 lb/hr and 4.38 tpy  Natural gas residual coke only  ≥ 6.8 and ≥60 gpm

- 3.B.1 For Emission Point 101, the permittee is limited by the Permit to Construct issued on June 28, 1994.
- 3.B.2 For Emission Points 102, 205, 321, 404, 405, 242, and 802, the permittee is limited by the Permit to Operate issued on September 22, 1992, and modified on June 8, 1993; September 14, 1993; January 11, 1994; June 28, 1994; March 14, 1995; July 25, 1995; November 14, 1995, March 26, 1996; and April 27, 1997.
- 3.B.3 For Emission Points 702, 703, 704, 705, 706, 728, 729, 730, 731, 732, 733, 734, 735, and 736, the permittee is limited by the Permit to Construct issued on July 25, 1995.
- 3.B.4 For Emission Points 5094, 6100, 6207, 6208, 6302 – 6306, 6411, 6412, 6424, 6425, 6430, 6433, 6436, 6440, 6506, 6507, 6804, and 6805, the permittee must provide in writing the date of actual startup and the date maximum production rates are reached. Each date must be provided no later than ten (10) days after the actual date.

For Emission Points 202, 301, 303 – 310, 318, 319, 323, 324, 506, 702, 705, and 730, the permittee must provide written notification of completion of any physical or operational

change. The notification shall include the date of completion of the change, a description of the precise nature of the change, the date of startup in the new operational mode, and the date maximum production rates are reached. Each date must be provided no later than ten (10) days after the actual date.

- 3.B.5 For Emission Points 104 and 441, the permittee shall not cause, permit, or allow the emission, in any one hour, particulate matter in total quantities in excess of the amount determined by the relationship

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

Where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hour. (Ref: APC-S-1, Section 3.6(a))

- 3.B.6 For Emission Points 201, 202, 207, 208, 209, 210, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 318, 319, 322, 323, 324, 406, 408, 409, 410, 416, 420, 422, 425, 426, 430, 433, 436, 440, and 505, the permittee is limited by the PSD Permit to Construct issued on November 14, 1995.

- 3.B.7 Emission Points 207, 208, 209, 6207, and 509 (Emission Point 509 vents through 501) are affected by and shall comply with the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60.40(c), Subpart Dc).

- 3.B.8 For Emission Points 202, 209, 301, 408, 409, 416, 702, and 801, no person shall cause or permit the emission of gas containing sulfur oxides (measured as sulfur dioxide) in excess of 500 parts per million (volume) from any process equipment. (Ref: APC-S-1, Section 4.2(a))

- 3.B.9 (a) For Emission Points 100, 110, 120, 121, 122, 123, 1234, 150, 170, 330, 331, 332, 333, 334, 335, 3130, 502, 507, 508, 509, 510, and 511, the permittee shall not emit ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input in excess of 0.6 pounds per million BTU per hour heat input. (Ref: APC-S-1, Section 3.4(a)(1))

- (b) For Emission Points 502, 508, and 509, the permittee shall not have particulate emissions from fossil fuel burning installations greater than 10 million BTU per hour heat input that exceeds the emission rate as determined by the relationship

$$E = 0.8808 * I^{0.1667}$$

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, 3.4(a)(2))

- 3.B.10 For Emission Points 100, 110, 120, 121, 122, 123, 1234, 150, 170, 330, 331, 332, 333, 8587 PER20030001

334, 335, 3130, 411, 502, 507, 508, 509, 510, 511, and 803, the permittee shall not discharge sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer in excess of 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. (Ref: APC-S-1, Section 4.1(a))

3.B.11 For Emission Points 6100, 202, 207, 208, 209, 6207, 6208, 301, 6302, 6304, 6305, 6306, 303, 304, 305, 306, 307, 308, 309, 310, 318, 319, 323, 324, 408, 409, 6411, 6412, 416, 6424, 6425, 426, 6430, 6433, 6436, 6440, 506, 6506, 6507, 702, 705, 730, 6804, and 6805, the permittee is limited by the PSD Permit to Construct issued on December 19, 2003.

3.B.12 Emission Points 6100, 6304, 6305, 411, 6411, 6412, 426, 801, 803, 6804, and 6805, are affected by and shall comply with the New Source Performance Standards for Calciners and Dryers in Mineral Industries (40 CFR 60.730, Subpart UUU. (Ref: 40 CFR 60.730, 60.732(a) & (b))

(a) The permittee shall not discharge into the atmosphere particulate matter in excess of 0.025 grains per dry standard cubic foot; and

(b) the permittee shall not exhibit greater than ten (10) percent opacity, unless the emissions are discharged from a wet scrubbing control device.

3.B.13 For Emission Points 6100, 301, 6304, 6305, 303, 305, 306, 307, 308, 309, 310, 318, 319, 323, 324, 6411, 6412, 6430, 6440, 6804, and 6805, fuels other than natural gas are prohibited. Residual coke retained in the feed solids is allowed for Emission Points 6804 and 6805. (Ref: Title V Permit issued on March 2, 1999, and modified on September 12, 2002)

3.B.14 For Emission Point 501, the permittee is limited by the Permit to Construct issued on April 29, 1997.

3.B.15 (a) Emission Point 506 is affected by and shall comply with the New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60.40b, Subpart Db).

(1) The permittee shall not cause to be discharged into the atmosphere any gases that contain nitrogen oxides (expressed as NO<sub>2</sub>) in excess of 0.10 pounds per million BTU. (Ref: 40 CFR 60.44b(a))

(2) The NO<sub>x</sub> standards apply at all times including periods of startup, shutdown, or malfunction. (Ref: 40 CFR 60.44b(h))

(3) Compliance with the emission limits is determined on a thirty (30) day rolling average basis. (Ref: Title V Permit issued on March 2, 1999)

- (b) After completion of the modification of Emission Point 506 and construction of 6506 and 6507 per 3.B.11;
- (1) On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8, Subpart A, Performance Tests, whichever date comes first, the permittee shall not cause to be discharged in to the atmosphere any gases that contain nitrogen oxides (expressed as NO<sub>2</sub>) in excess of 12.6 pounds/hour and 55.19 tons/year.
  - (2) The permittee shall comply with the provisions of paragraphs 60.48b(b), (c), (d), (e)(2), (e)(3), and (f); or the permittee shall monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to 60.49(c).
  - (3) The permittee shall maintain the percent flue gas recirculation at equal to or greater than 15%.

3.B.16 For Emission Points 330, 331, 332, 333, 334, 335, 408, 409, 410, 411, 416, 420, 426, 430, 440, 508, 510, 511, 702, 730, and 801, the permittee shall burn Natural Gas, Propane, or Hydrogen Only. (Ref: Title V Permit issued on March 2, 1999)

3.B.17 When either Emission Point 6506 or 6507 is started up, Emission Points 502, 508, and 509, shall all be permanently shutdown, and notification of the date of shutdown of the units shall be made within ten (10) days of the actual date.

3.B.18 For Emission Point 701, the permittee is limited by the Permit to Construct issued on March 14, 1995.

3.B.19 Emission Points 7089 through 7105 and 7113 are affected by and shall comply with the New Source Performance Standards for Nonmetallic Mineral Processing Plants (40 CFR 60.670, Subpart OOO).

The permittee shall not cause to be discharged into the atmosphere from any transfer point any fugitive emissions which exhibit greater than ten (10) percent opacity. (Ref: 40 CFR 60.672(b))

3.B.20 For Emission Points 321, 406, 436, 6436, 505, and 801, the permittee shall maintain a scrubber pH equal to or greater than 6.8.

3.B.21 For Emission Point 801, the permittee is limited by the Permit to Construct issued on April 11, 1989, and modified through the Permit to Operate issued on September 22, 1992.

3.B.22 For Emission Point 202, the process waste gases must be scrubbed to remove Hydrogen Chloride and Chlorine prior to discharge to the atmosphere as established in the Federally

Enforceable Construction Permits for the Prevention of Significant Deterioration  
Authority issued on November 14, 1995, and December 19, 2003.

- 3.B.23 (a) Prior to completion of the modification per 3.B.11 and under normal operation conditions, all process waste gases shall be incinerated utilizing three (3) waste gas incinerators, Emission Points 207, 208, and 209. During partial or total incineration system shutdown, malfunction, or failure, the excess process waste gases shall be discharged through the waste gas emergency vent stack, Emission Point 202. Incinerator downtime (calculated by summing the downtime hours of incinerators 1, 2, and 3) shall not exceed 2500 hours per year, calculated as a twelve (12) month rolling total. (Ref: Title V Permit issued on March 2, 1999)
- (b) After completion of the modification per 3.B.11:
- (1) Prior to successful emissions testing of Emission Point 202, the combined total production rate of all chlorination section process lines which are venting incinerator by-pass gas to Emission Point 202 shall not exceed 69.67 short tons per hour of  $TiCl_4$  at any given time.
  - (2) Following a successful emission test of Emission Point 202, the permittee shall calculate the allowable chlorination section production rate during incinerator by-pass, and upon approval by MDEQ, the calculated production rate shall not be exceeded for those units by-passing incinerators.
  - (3) During partial or total incineration system shutdown, malfunction, or failure, the excess process waste gases shall be discharged through the waste gas emergency vent stack, Emission Point 202, or routed to the standby thermal oxidizer, Emission Point 6208. Operation of Emission Point 202 is restricted to 1,861 hours per year, calculated by summing the downtime hours of Chlorination Section Incinerators Nos. 1, 2, 3, and 4 (when vented to Emission Point 202) and calculated as a twelve (12) month rolling total, provided however, that the number of downtime hours for Incinerator No. 4 while vented to Emission Point 202 shall not exceed 59 hours in any consecutive twelve (12) month period.
  - (4) For Emission Points 207, 208, 209, 6207, and 6208, the permittee shall maintain scrubber pH and liquid flowrate at equal to or greater than 6.8 and 60 gallons per minute, respectively.

3.B.24 For Emission Points 332, 333, 334, and 335, the permittee is limited by the Permit to Construct issued on February 13, 1996.

3.B.25 Each emergency generator is limited to less than 500 hours of operation per year based on a twelve (12) month rolling total. (Ref: Title V Permit issued on March 2, 1999)

- 3.B.26 The permittee must route the emissions from the fluid bed roaster pilot plant, Emission Point 803, through Emission Point 801 and the associated caustic scrubber. (Ref: Title V Permit issued on March 2, 1999, and modified on April 9, 2002)
- 3.B.27 For Emission Point 170, the permittee is limited by the Permit to Construct issued September 8, 1999.
- 3.B.28 For Emission Points 6804 and 6805, the permittee shall maintain scrubber pH and liquid flowrate at equal to or greater than 6.8 and 60 gallons per minute, respectively, unless data from performance testing and monitoring associated with 5.B.10 require otherwise.
- 3.B.29 Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, are affected by and shall comply with the Maximum Achievable Control Technology (MACT) Standards as described in the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart MMM – National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production, and portion of 40 CFR 63, Subpart A – General Provisions, Subpart G – National Emission Standards for Organic Hazardous Air Pollutants from Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater, and Subpart H – National Emission Standards for Organic Hazardous Air Pollutants from Equipment Leaks.

Since related conditions in this permit may not define certain terms or specify specific requirements in detail, the above regulations and all applicable requirements under these Subparts are hereby incorporated. Copies of the regulation or the applicable portion of the regulation are included as appendixes C, D, E, and F of this permit.

- 3.B.30 For the emission point(s) listed in Condition 3.B.29, the permittee shall control HAP emissions to the levels specified below for existing sources:
- (a) Process Vents
    - (1) The uncontrolled organic HAP emission rate shall not exceed 0.15 Mg/yr from the sum of all process vents within a process. (Ref: 40 CFR 63, Subpart MMM 63.1362(b)(2)(i))
    - (2) The uncontrolled HCl and chlorine emissions, including HCl generated from the combustion of halogenated process vent emissions, from the sum of all process vents within a process shall not exceed 6.8 Mg/yr. (Ref: 40 CFR 63, Subpart MMM §63.1362(b)(3)(i))
  - (b) Storage Vessels
    - (1) Except as specified in §63.1362(c)(4) and (5), for Group I storage vessels

as defined in §63.1361, the permittee shall equip the affected storage vessel with one of the following:

- (i) A fixed roof and internal floating roof, or
- (ii) An external floating roof, or
- (iii) An external floating roof converted to an internal floating roof, or
- (iv) A closed vent system meeting the conditions of §63.1362(k) and a control device that meets any of the following conditions:
  - (A) Reduces organic HAP emissions by 95 percent by weight or greater; or
  - (B) Reduces organic HAP emissions to outlet concentrations of 20 ppmv or less as TOC; or
  - (C) Is a flare that meets the requirements of §63.11(b); or
  - (D) Is a control device specified in §63.1365(a)(4). (Ref: 40 CFR 63, Subpart MMM §63.1362(c)(2))

- (2) The permittee is exempt from the specifications in §63.1362(c)(2) through (4) during periods of planned routine maintenance of the control device that do not exceed 240 hours/year. (Ref: 40 CFR 63, Subpart MMM §63.1362(c)(5))

(c) Wastewater

The permittee shall comply with the requirements of §§63.131 through 63.147 of 40 CFR Subpart G, with the differences noted in §63.1362(d)(1) through (13) for the purposes of Subpart MMM. (Ref: 40 CFR 63, Subpart MMM §63.1362(d))

(d) Heat Exchange Systems

Unless one or more of the conditions specified in §63.104(a)(1) through (6) of 40 CFR 63, Subpart F are met, the permittee shall monitor each heat exchange system that is used to cool process equipment in PAI process units that are part of an affected source as defined in §63.1360(a) according to the provisions in either §63.104(b) or (c) of Subpart F. When the term “chemical manufacturing process unit” is used in §63.104(c) of Subpart F, the term “PAI process unit” shall apply for the purposes of this requirement. Whenever a leak is detected, the permittee shall comply with the requirements in §63.104(d) of 40 CFR 63, Subpart F. Delay of



repair of heat exchange systems is allowed in accordance with the provisions of §63.104(e) of 40 CFR 63, Subpart F. (Ref: 40 CFR 63, Subpart MMM §63.1362(f))

3.B.31 For the emission point(s) listed in condition 3.B.29, the permittee shall comply with the provisions of 40 CFR 63, Subpart H as specified in §63.1363(b)(1) through (3).

- (a) §§63.160, 63.161, 63.162, 63.163, 63.167, 63.168, 63.170, 63.173, 63.175, 63.176, 63.181, and 63.182 of 40 CFR 63, Subpart H shall not apply for the purposes of this Subpart MMM. The permittee shall comply with the provisions specified in §63.1363(b)(1)(i) through (viii) of Subpart MMM. (Ref: 40 CFR 63, Subpart MMM §63.1363(b)(1))
- (b) The permittee shall comply with §§63.164, 63.165, 63.166, 63.169, 63.177, and 63.179 of 40 CFR 63, Subpart H in their entirety, except that when these sections reference other section of Subpart H, the permittee shall comply with the revised sections as specified in §63.1363(b)(1) and (3) of Subpart MMM. §63.164 of Subpart H applies to compressors. §63.165 of Subpart H applies to pressure relief devices in gas/vapor service. §63.166 of Subpart H applies to sampling connection systems. §63.169 of Subpart H applies to pumps, valves, connectors, and agitations in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service. §63.177 of Subpart H applies to general alternative means of emission limitation. §63.179 of Subpart H applies to alternative means of emission limitation for enclosed-vent process units. (Ref: 40 CFR 63, Subpart MMM §63.1363(b)(2))
- (c) The permittee shall comply with §§63.171, 63.172, 63.174, 63.178, and 63.180 of subpart H with the differences specified in §63.1363(b)(3)(i) through (v) of Subpart MMM. (Ref: 40 CFR 63, Subpart MMM §63.1363(b)(3))
- (d) The permittee shall comply with §63.1363(d) of Subpart MMM for open-ended values or lines. (Ref: 40 CFR 63, Subpart MMM §63.1363(d))
- (e) The permittee shall comply with §63.1363(e) of Subpart MMM for valves in gas/vapor service and in light liquid service. (Ref: 40 CFR 63, Subpart MMM §63.1363(d))

3.B.32 The spin flash dryer, Emission Point 411, and the sand dryer, Emission Point 301, shall not be operated without the operation of the associated bag filter and guard filter. (Ref: Title V Permit issued on March 2, 1999, and modified on September 12, 2002)

3.B.33 For Emission Points 202, 207, 208, 209, 6207, and 6208, the sum of TRS emissions shall not exceed a total of 155.6 tons per year.

3.B.34 For Emission Points 502, 506, 508, 509, 6506, and 6507, are subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. These units are

existing large gaseous fuel units as defined in the standard and are only subject to the initial notification requirements in §63.9(b). These units are not required to meet any other requirements of this standard or the General Provisions, 40 CFR 63, Subpart A. (Ref: 40 CFR §§63.7485 and 63.7506(b))

- 3.B.35 For Emission Point 1234, the permittee is subject to and shall comply with the applicable requirements of the New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (CI ICE), 40 CFR Part 60, Subpart IIII, and shall comply with the General Provisions (40 CFR Part 60, Subpart A) as required in Table 8 of NSPS Subpart IIII. (Ref.: 40 CFR 60.4200(a)(2))

For Emission Point 1234, the permittee shall comply with the emission standards for new nonroad compression ignition engines in §60.4202, for all pollutants, for the same model year and maximum engine power. The permittee shall comply with these standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's specifications. (Ref.: 40 CFR 60.4205(b) and 60.4211(c))

- 3.B.36 Emission Point 1234 may be operated for the purpose of maintenance checks and readiness testing. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of the engine in emergency situations. Any operation of the engine other than emergency operation, and maintenance and testing as permitted in this section, is prohibited. (Ref.: 40 CFR 60.4211(e))

- 3.B.37 For Emission Point 1234, beginning October 1, 2007, the permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(a); that is, it shall have a maximum sulfur content of 500 part per million (ppm) and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. Beginning October 1, 2010, the permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel; that is it shall have a maximum sulfur content of 15 ppm and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. (Ref.: 40 CFR 60.4207(a) and (b))

- 3.B.38 For Emission Point 1234, the permittee is subject to and shall comply with the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ. Emission Point 1234 does not have to meet the requirements of this subpart and of Subpart A of 40 CFR Part 63 except for the initial notification requirements of §63.6645(h). (Ref.: 40 CFR 60.6585 and 60.6590(b))

**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 & 1.19	PM	0.6 lbs/MMBTU  or  as otherwise limited by facility modification restrictions
APC-S-1, Section 4.1(a)	3.C.2 & 1.19	SO <sub>2</sub>	4.8 lbs/MMBTU  or  as otherwise limited by facility modification restrictions
APC-S-1, Section 3.6(a)	3.C.3	PM	$E = 4.1(p)^{0.67}$

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 The permittee shall not cause, permit, or allow the emission from any manufacturing process, in any one hour from any point source, particulate matter in quantities in excess of the amount determined by the relationship

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

where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hours. (Ref: APC-S-1, Section 3.6(a))

#### 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.

5.A.7 The permittee shall maintain records of any alterations, additions, or changes in equipment or operation.

**B. Specific Monitoring and Recordkeeping Requirements**

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number
201, 210, 301, 302, 408, 409, 416, 424, 425, 433, 436, 441, 702, 703, 704, 705, 706, 730, 731, 735, 6303, 6306, 6424, 6425, 6433	PM	Stack Testing in accordance with EPA Ref. Methods 1 – 5.	5.B.1
101, 102, 321, 404, 405, 406, 422, 701, 802	PM	Stack Testing in accordance with EPA Ref. Methods 1 – 5.	5.B.2
303, 304, 305, 306, 307, 308, 309, 310, 318, 319, 323, 324, 330 – 335, 408, 409, 410, 411, 416, 420, 426, 430, 440, 502, 508, 510, 511, 702, 730, 801, 803, 6100, 6304, 6305, 6411, 6412, 6430, 6440, 6804, 6805	Fuel	Monitor and record monthly the quantity of natural gas used.	5.B.3
321, 406, 436, 6436, 505, 801	pH	Continuously monitor and record caustic scrubbing solution pH.	5.B.5
202	PM CO TRS Cl <sub>2</sub> & HCl	Stack Testing in accordance with EPA Ref. Methods 1 – 5. Stack Testing in accordance with EPA Ref. Method 10. Stack Testing in accordance with EPA Ref. Method 15. Monitor and record monthly TRS emissions. Stack Testing as proposed by the company and approved by DEQ.	5.B.4 5.B.6
207, 208, 209, 6207, 6208	PM SO <sub>2</sub> NO <sub>x</sub> CO TRS pH & flowrate Fuel Cl <sub>2</sub> & HCl	Stack Testing in accordance with EPA Ref. Methods 1 – 5. Stack Testing in accordance with EPA Ref. Method 6. Stack Testing in accordance with EPA Ref. Method 7. Stack Testing in accordance with EPA Ref. Method 10. Stack Testing in accordance with EPA Ref. Method 15. Monitor and record monthly TRS emissions. Continuously monitor and record pH and flowrate. Monitor and record daily the amount of each fuel combusted. Stack Testing as proposed by the company and approved by DEQ.	5.B.4 5.B.7

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number
2010	Tank Size	Records showing the dimensions and capacity of the tank.	5.B.8
411, 426, 6100, 6304, 6305, 6411, 6412	PM Opacity	Stack Testing in accordance with EPA Ref. Methods 1 – 5. Stack Testing in accordance with EPA Ref. Method 9.	5.B.9
801	PM Pressure drop & Flowrate	Stack Testing in accordance with EPA Ref. Methods 1 – 5. Continuously monitor and record scrubber pressure loss of the gas stream and flowrate of the liquid. Determine once per day an arithmetic average over a two (2) hour period of the change in pressure of the gas and flowrate of the liquid.	5.B.10
6804, 6805	PM SO <sub>2</sub> NO <sub>x</sub> CO Pressure drop & flowrate HCl	Stack Testing in accordance with EPA Ref. Methods 1 – 5. Stack Testing in accordance with EPA Ref. Method 6. Stack Testing in accordance with EPA Ref. Method 7. Stack Testing in accordance with EPA Ref. Method 10. Stack Testing as proposed by the company and approved by DEQ. Continuously monitor and record scrubber pressure loss of the gas stream and flowrate of the liquid. Determine once per day an arithmetic average over a two (2) hour period of the change in pressure of the gas and flowrate of the liquid.	5.B.10
506, 6506, 6507	%FGR Fuel NO <sub>x</sub>	Continuously monitor and record % FGR. Monitor and record daily the amount of fuel combusted. Operate a continuous emissions monitoring system, which is used to determine compliance with the emission limits on a 30-day rolling average basis (lb/MMBTU, expressed as NO <sub>2</sub> )	5.B.11 5.B.12
509	Fuel	Monitor and record daily the amount of each fuel combusted.	5.B.12
6302, 705	PM Cl <sub>2</sub> & HCl	Stack Testing in accordance with EPA Ref. Methods 1 – 5. Stack Testing as proposed by the company and approved by DEQ.	5.B.13
7089 – 7105	Opacity	Stack Testing in accordance with EPA Ref. Method 9.	5.B.14
7113	Opacity	Stack Testing in accordance with EPA Ref. Method 9.	5.B.14
201, 210, 302, 321, 406, 436, 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736	Chlorine	Stack Testing in accordance with EPA Ref. Method 26A.	5.B.15
201, 210, 302, 321, 406, 436	HCl	Stack Testing in accordance with EPA Ref. Method 26A.	5.B.15
101, 102, 104, 201, 205, 207 – 210, 301, 302, 321, 322, 404 – 406, 418, 422, 424, 425, 433, 436, 441,	Emissions Control Equipment	Maintain monthly maintenance/inspection records. Continuously monitor pressure drop on each baghouse and scrubbers EP 6424, 6425, and 705.	5.B.16

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number
505, 701 – 706, 730 – 736, 801, 802, 6100, 6303, 6304, 6305, 6306, 6411, 6412, 6424, 6425, 6433, 6436, 705			
510, 511, 170	Hours of Operation	Monitor and record the hours of operation.	5.B.17
803	Fuel	Monitor and record monthly the amount and sulfur content of cake burned in the Fluid Bed Roaster Pilot Plant	5.B.18
701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 – 7415, 7470, 7471	Chlorine HCl TOC HAPs	Demonstrate initial compliance with §63.1362(b), (c), (d), (f), and (g).	5.B.19 5.B.20
		Stack Testing in accordance with EPA Ref. Methods	5.B.21
		Stack Testing for continuous and batch processes	5.B.22
		Procedures for demonstrating compliance with §63.1362(b)	5.B.23
		Demonstrate initial compliance with the storage vessel standards.	5.B.24 5.B.25
		Demonstrate initial compliance with the wastewater requirements.	5.B.26
		Installation, operation, and maintenance of monitoring devices	5.B.27
		Recordkeeping requirements	5.B.28 5.B.29 5.B.30 5.B.31
6436	PM NO <sub>x</sub> Cl <sub>2</sub> & HCl N <sub>2</sub> & spent acid	Stack Testing in accordance with EPA Ref. Methods 1 – 5. Stack Testing in accordance with EPA Ref. Method 7. Stack Testing as proposed by the company and approved by DEQ. Monitor nitrogen content of spent acid feed on a weekly basis.	5.B.32
1234	Operation and maintenance	Operate and maintain engine according to manufacturer's specifications over the entire life of the engine. Only change those settings permitted by the manufacturer.	5.B.46
	Hours of operation	Install a non-resettable hour meter.	5.B.47

5.B.1 For Emission Points 201, 210, 301, 302, 408, 409, 416, 424, 425, 433, 436, 441, 702, 703, 704, 705, 706, 730, 731, and 735, the permittee is required to perform stack testing in accordance with EPA Reference Methods 1 – 5 to demonstrate compliance with the permitted emission limitations for particulate matter (PM). The permittee shall perform the stack testing biennially to demonstrate compliance.



After completion of the modification or construction per 3.B.11 and within 60 days after achieving the new maximum production rate at which Emission Points 301, 6303, 6306, 6424, 6425, 6433, 702, and 730 will be operated, but no later than 180 days of any physical (or operational) change to the unit(s), the permittee shall demonstrate compliance with the particulate matter (PM) emission limitation by stack testing as specified above and biennially thereafter.

For the purpose of compliance demonstration, the permittee shall operate the sources at its maximum capacity. (Ref: APC-S-6, Section III.A.3(a))

- 5.B.2 For Emission Points 101, 102, 321, 404, 405, 406, 422, 701, and 802, the permittee is required to perform stack testing in accordance with EPA Reference Methods 1 – 5 to demonstrate compliance with the permitted emission limitations for PM. The permittee shall perform the stack testing biennially to demonstrate compliance.

For the purpose of compliance demonstration, the permittee shall operate the sources at its maximum capacity. (Ref: APC-S-6, Section III.A.3(a))

- 5.B.3 The permittee shall monitor and maintain records on the quantity of natural gas combusted in the above referenced fuel burning equipment. (Ref: APC-S-6, Section III.A.3(a)(2))
- 5.B.4 For Emission Points 202, 207, 208, 209, 6207, and 6208, the sum of TRS emission shall not exceed a total of 155.6 tons per year. Total TRS emissions shall be determined monthly and shall be calculated as the sum of the following:
- (a) The sum of TRS emissions from the incinerator units is calculated by multiplying the operating hours for each incinerator unit by its hourly TRS emission rate as determined from the most recent stack test (Emission Points – 207, 208, 209, 6207, and 6208).
  - (b) The TRS emission from the vent stack, Emission Point 202, are calculated by multiplying the number of incinerator hours when the primary controls were not working by the emission rate of TRS as determined from the most recent stack test of Emission Point 202. For the purposes of this calculation, if the emission rate of TRS from Emission Point 202 was determined during a test when more than one incinerator was not working, then that TRS emission rate shall be divided by the number of incinerators not working.

Annual TRS Emission shall be calculated monthly as a twelve (12) month rolling total. The reports shall be submitted on a semi-annual basis and by April 30 and October 30 of each year.

- 5.B.5 The permittee shall continuously monitor and record the caustic scrubbing solution pH for the Emission Points 321, 406, 436, 6436, 505, and 801. (Ref: APC-S-6, Section

III.A.3(a)(2))

- 5.B.6 (a) For Emission Point 202, the permittee is required to perform stack testing in accordance with EPA Reference Methods 1 – 5 to demonstrate compliance with the permitted emission limitations for PM, EPA Reference Method 10 for Carbon Monoxide (CO), and EPA Reference Method 16A (60-minute, in place of 2-hour test runs) for Total Reduced Sulfur (TRS). The permittee shall perform the stack testing biennially to demonstrate compliance.

After completion of the modification per 3.B.11 and within 60 days after achieving the new maximum production rate at which any two of the Emission Points 207, 208, 209 or 6207 will be operated, but not later than 180 days of any physical (or operational) change to these units, the permittee shall demonstrate compliance with the particulate matter (PM/PM<sub>10</sub>), Total Reduced Sulfur, carbon monoxide (CO), chlorine and hydrogen chloride emission limitation by stack testing as specified above and biennially thereafter, while two incinerators are bypassed to Emission Point 202. In subsequent testing events, the bypasses incinerators shall not be the same one tested in the most recent testing event.

For the purpose of compliance demonstration, the permittee shall operate the sources at its maximum capacity. (Ref: APC-S-6, Section III.A.3(a))

- (b) The permittee shall monitor and record all occasions when waste gas is vented from Emission Point 202. The records shall include the time and date that venting begins and the time and date that venting concludes, the total number of incinerators down, the identification of each incinerator which is down, and the production rate of the chlorination section lines venting incinerator by-pass gas in short tons per day of TiCl<sub>4</sub>. The records shall include a monthly calculation of the twelve (12) month rolling total of incinerator downtime, calculated by summing the downtime hours of chlorination incinerators. (Ref: APC-S-6, Section III.A.3(a)(2))
- (c) After completion of the modification per 3.B.11 and following the first successful test of Emission Point 202, the permittee shall calculate the allowable production rate for chlorination section production lines venting incinerator by-pass gas, and submit the calculations to DEQ for approval.
- 5.B.7 (a) For Emission Points 207, 208, and 209, the permittee is required to perform stack testing in accordance with EPA Reference Methods 1 – 5 to demonstrate compliance with the permitted emission limitations for PM, EPA Reference Method 6 for Sulfur Dioxide (SO<sub>2</sub>), EPA Reference Method 7 for Nitrogen Oxides (NO<sub>x</sub>), EPA Reference Method 10 for CO, and EPA Reference Method 16A (60-minute, in place of 2-hour test runs) for TRS. The permittee shall perform the stack testing biennially to demonstrate compliance.

After completion of the construction or modification per 3.B.11 and within 60 days after achieving the maximum production rate at which Emission Points 207, 208, 209, 6207, and 6208 will be operated, but no later than 180 days of any physical (or operational) change to the incinerators, the permittee shall demonstrate compliance with the particulate matter (PM/PM<sub>10</sub>), Total Reduced Sulfur, carbon monoxide (CO), chlorine, and hydrogen chloride emission limitations by stack testing as specified above and biennially thereafter.

For the purposes of compliance demonstration, the permittee shall operate the sources at maximum capacity. (Ref: APC-S-6, Section III.A.3(a))

- (b) For Emission Points 207, 208, 209, and 6207, the permittee shall record and maintain records of the amounts of each fuel combusted during each day. (Ref: 40 CFR 60.48c(g))
- (c) For Emission Point 6208, the permittee shall record and maintain records of the amounts of each fuel combusted during each day.
- (d) For Emission Points 207, 208, 209, 6207, and 6208, the permittee shall continuously monitor and record scrubber pH and flowrate.

5.B.8 For Emission Point 2010, the permittee shall keep records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. These records are required to be kept for the life of the source. (Ref: 40 CFR 60.116b(a) and (b))

5.B.9 (a) For Emission Points 411 and 426, the permittee is required to perform stack testing in accordance with EPA Reference Methods 1 – 5 to demonstrate compliance with the permittee emission limitations for PM. The sampling time and volume for each run shall be at least two (2) hours and 1.70 dscm. The permittee shall perform the stack testing biennially to demonstrate compliance.

After completion of the construction per 3.B.11 and within 60 days after achieving the new maximum production rate at which Emission Point 6100, 6304, 6305, 6411, and 6412 will be operated, but not later than 180 days of any physical (or operational) change to the unit(s), the permittee shall demonstrate compliance with the particulate matter (PM) emission limitation by stack testing as specified above and biennially thereafter.

For the purpose of compliance demonstration, the permittee shall operate the sources at its maximum capacity.

- (b) For Emission Points 411, 426, 6100, 6304, 6305, 6411, and 6412, the permittee shall have a certified visible emissions observer measure and record six (6) minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with EPA Reference Method 9. (Ref: 40 CFR 60.734(b))

and 60.736(b)(2))

- 5.B.10 (a) For Emission Point 801 the permittee is required to perform stack testing in accordance with EPA Reference Methods 1 – 5 to demonstrate compliance with the permitted emission limitations for PM. The sampling time and volume for each run shall be at least two (2) hours and 1.70 dscm. The permittee shall perform the stack testing biennially to demonstrate compliance. (Ref: 40 CFR 60.436(b)(1))

Within 60 days after achieving the maximum production rate at which Emission Points 6804 and 6805 will be operated, but no later than 180 days of any physical (or operational) change to the unit, the permittee is required to perform stack testing in accordance with EPA Reference Methods 1 – 5 to demonstrate compliance with the permitted emission limitations for PM, EPA Reference Method 6 for Sulfur Dioxide (SO<sub>2</sub>), EPA Reference Method 7 for Nitrogen Oxides (NO<sub>x</sub>), and EPA Reference Method 10 for CO, and biennially thereafter.

For the purpose of compliance demonstration, the permittee shall operate the sources at its maximum capacity. (Ref: APC-S-6, Section III.A.3(a))

- (b) The permittee shall have a certified visible emissions observer measure and record six (6) minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with EPA Reference Method 9; or (Ref: 40 CFR 60.734(b) & 60.736(b)(2))
- (c) For Emission Points 801, 6804, and 6805, the permittee shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss monitoring device must be certified by the manufacturer to be accurate within five (5) percent of water column gage pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within five (5) percent of design scrubbing liquid flow rate. (Ref: 40 CFR 60.734(d))

During each performance test of the wet scrubber, the permittee shall use the monitoring devices to determine the average change in pressure of the gas stream across the scrubber and the average flowrate of the scrubber liquid during each of the particulate matter testing runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purpose of the reporting requirements. (Ref: 40 CFR 60.736(c))

- (d) For Emission Points 801, 6804, and 6805, the permittee shall determine and record once each day, from the recordings of the monitoring devices, an arithmetic average over a two (2) hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid. (Ref:

40 CFR 60.735(b))

- 5.B.11 (a) For Emission Points 506, 6506, and 6507, the permittee shall comply with the provisions of paragraphs (b), (c), (d), (e), and (f), or monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in paragraph (g). (Ref: 40 CFR 60.48b(g))
- (b) The permittee shall install, calibrate, maintain, and operate a continuous system for monitoring nitrogen oxide emissions to demonstrate compliance with the NO<sub>x</sub> emission limits and record the output of the system. For Emission Point 506, the permittee shall determine compliance through the use of a thirty (30) day performance test to be conducted annually. Within 60 days after achieving the maximum production rate at which Emission Points 6506 and 6507 will be operated, but no later than 180 days of any physical (or operation ) change to the unit, the permittee shall determine compliance through the use of a thirty (30) day performance test, and annually thereafter.

During periods when performance tests are not required, nitrogen oxides emissions data collected pursuant to 5.B.11(b), (c), (d), and (e) are used to calculate a thirty (30) day rolling emission rate on a daily basis and used to prepare excess emission reports. The thirty (30) day rolling average emission rate is calculated each operating day as the average of all of the hourly emissions data for the preceding thirty (30) operating days. (Ref: 40 CFR 60.46b(e) & (e)(4) and 60.48b(b))

- (c) The continuous monitoring system shall be operated and data recorded during all periods of operation except for continuous monitoring system breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments. (Ref: 40 CFR 60.48b(c))
- (d) The one (1) hour average nitrogen oxides emission rates measured by the continuous monitoring system shall be expressed in pounds per million BTU (lb/MMBTU) heat input and shall be used to calculate the average emission rates. The one (1) hour averages shall be calculated using the data points required under 40 CFR 60.13(h). At least two data points shall be used to calculate each one (1) hour average. (Ref: 40 CFR 60.48b(d))
- (e) The procedures under 40 CFR 60.13 shall be following for installation, evaluation, and operation of the continuous monitoring system. (Ref: 40 CFR 60.48b(e))
- (f) When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, the permittee shall obtain emissions data by using standby monitoring system, EPA Reference Method 7, EPA Reference Method 7A, or

other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours each operating day, in at least 22 out of 30 successive operating days. (Ref: 40 CFR 60.48b(f))

- (g) The permittee shall submit to the DEQ for approval a plan that identifies the operating conditions to be monitored and the records to be maintained. The plan shall be submitted within 360 days of the initial startup. The plan shall:
- (1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and the nitrogen oxides emission rates. Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion and the level of excess air;
  - (2) Include the date and information that the permittee used to identify the relationship between nitrogen oxides emission rates and these operating conditions;
  - (3) Identify how these operating conditions, including steam generating unit load, will be monitored on a hourly basis by the permittee during the period of operation; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee.
  - (4) Develop a quality assurance plan that ensures continuous and reliable performance of the predictive emission monitoring system (PEMS) and its components. The plan should include daily, quarterly, and annual assessment procedures or operations to ensure adequate performance. As part of the plan, the permittee shall recommend a frequency for calibrating each sensor whose readout serves as an input to the mode (all sensors, at a minimum, shall be calibrated as often as recommended by the manufacturer). The plan should also include a detailed corrective action plan that can be executed at times when the PEMS is inoperative or the data produced is not valid.

If the plan is approved, the permittee shall maintain records of predicted nitrogen oxides emission rates; the monitored operating conditions, including steam generating unit load; and quality assurance, identified in the plan above. (Ref: 40 CFR 60.49b(c))

- (5) After completion of the modification per 3.B.11, the permittee shall use the PEMS to continuously monitor and record the percent flue gas recirculation.

- (h) The permittee shall record and maintain records of the amounts of fuel combusted during each day. (Ref: 40 CFR 60.49b(d))
  
- (i) The permittee shall maintain records of the following information for each operating day:
  - (1) Calendar date.
  - (2) The average hourly nitrogen oxides emission rates (expressed as NO<sub>2</sub>) measured in lb/MMBTU.
  - (3) The thirty (30) day average nitrogen oxides emission rates (lb/MMBTU) calculated at the end of each operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding thirty (30) operating days.
  - (4) Identification of the operating days when the calculated thirty (30) day average nitrogen oxides emission rates are in excess of the NO<sub>x</sub> limits, with the reasons for such excess emissions as well as a description of corrective actions taken.
  - (5) Identification of the operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
  - (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
  - (7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
  - (8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
  - (9) Description of any modifications to the continuous monitoring system that could affect the ability of the system to comply with (2) or (3) above.
  - (10) Results of daily drift tests and quarterly accuracy assessments as required under 40 CFR 60, Appendix F, Procedure (1).

(Ref: 40 CFR 60.49b.(g))

5.B.12 For Emission Point 509, the permittee shall record and maintain records of the amounts of each fuel combusted during each day. (Ref: 40 CFR 60.48c(g))

5.B.13 Within 60 days after achieving the maximum production rate at which Emission Points 6302 and 705 will be operated, but no later than 180 days of any physical (or operational) change to the unit, the permittee is required to perform stack testing in accordance with EPA

Reference Methods 1-5 to demonstrate compliance with the permitted emission limitations for PM and as proposed by the permittee and approved by DEQ to demonstrate compliance with the permitted emission limitations for Cl<sub>2</sub> and/or HCl, and biennially thereafter.

For the purpose of compliance demonstration, the permittee shall operate the sources at maximum capacity. (Ref: APC-S-6, Section III.A.3(a))

5.B.14 For Emission Points 7089 through 7105 and 7113, the permittee shall use EPA Reference Method 9 to determine compliance on a monthly basis with the opacity limits. In determining compliance, the permittee shall use Method 9 and the procedures in 40 CFR 60.11, with the following additions and changes:

- (a) The minimum distance between the observer and the emission source shall be 15 feet.
- (b) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources. The required observer position relative to the sun must be followed.
- (c) For affected facilities using wet dust suppression for PM control, a visible mist is sometimes generated by the spray. The water mist must not be confused with PM emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
- (d) For purposes of demonstrating compliance, the minimum total time of observations shall be one (1) hour (10 six-minute averages), instead of three (3) hours.

(Ref.: 40 CFR 60.675.(c))

5.B.15 For Emission Points 201, 210, 302, 321, 406, 436, 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, and 736, the permittee is required to perform stack testing in accordance with EPA Reference Method 26A to demonstrate compliance with the permitted emission limitations for HCl or Chlorine. The permittee shall demonstrate compliance biennially.

For the purpose of compliance demonstration, the permittee shall operate the sources at its maximum capacity. (Ref: APC-S-6, Section III.A.3(a))

5.B.16 The permittee shall perform regular maintenance each month or more often if necessary to maintain proper operation of the pollution control equipment. Records of this maintenance shall be kept in log form and made available for review upon request. The permittee shall also maintain on hand at all times sufficient equipment as is necessary to repair and/or replace the pollution control equipment. (Ref: APC-S-6, Section III.A.3(a)(3))

The permittee shall continuously measure and monitor the pressure drop across each baghouse emission control systems. (Ref: APC-S-6, Section III.A.3(a)(2))

5.B.17 The permittee shall monitor and maintain records of the hours of operation for each



emergency generator. The total hours of operation for each generator shall be recorded on a monthly basis and a twelve (12) month rolling total. (Ref: APC-S-6, Section III.A.3(a)(2))

- 5.B.18 The permittee shall monitor and maintain records on the quantity and quality of coke combusted in Emission Point 803. (Ref: APC-S-6, Section III.A.3(a)(2))
- 5.B.19 For Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, except as specified in § 63.1365(a)(4) of 40 CFR 63, Subpart MMM, the procedures specified in §§ 63.1365(c), (d), (e), (f), and (g) are required to demonstrate initial compliance with § 63.1362(b), (c), (d), (f), and (g), respectively. (Ref: 40 CFR 63, Subpart MMM §63.1365(a))
- 5.B.20 For Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, initial compliance with the alternative standards in § 63.1362(b)(6) and (c)(4) is demonstrated when the outlet TOC concentration is 20 ppmv or less, and the outlet HCl and chlorine concentration is 20 ppmv or less. To demonstrate initial compliance, the permittee shall be in compliance with the monitoring provisions in § 63.1366(b)(5) on the initial compliance date. The permittee shall use Method 18 of 40 CFR 60, Appendix A to determine the predominant organic HAP in the emission stream if the TOC monitor is calibrated on the predominant HAP (Ref: 40 CFR 63, Subpart MMM, § 63.1365(a)(5)).

Initial compliance with the 20 ppmv TOC and HCl and chlorine concentration is demonstrated when the outlet TOC concentration is 20 ppmv or less, and the outlet HCl and chlorine concentration 20 ppmv or less. To demonstrate initial compliance, the permittee shall use applicable test methods described in § 63.1365(b)(1) through (9), and test under conditions described in § 63.1365(b)(10) or (11), as applicable. The permittee shall comply with the monitoring provisions in § 63.1366(b)(1) through (5) on the initial compliance date. (Ref: 40 CFR 63, Subpart MMM, § 63.1365(a)(6))

- 5.B.21 For Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, when testing is conducted to measure emissions, the following test methods are specified for use (Ref: 40 CFR 63, Subpart MMM, § 63.1365(b)(1) through (9)):
- (a) Method 1 or 1A of appendix A of 40 CFR part 60 shall be used for sample and velocity traverses.
  - (b) Method 2, 2A, 2C, or 2D of Appendix A of 40 CFR 60 shall be used for velocity and volumetric flow rates.
  - (c) Method 3 of Appendix A of 40 CFR 60 shall be used for gas analysis.
  - (d) Method 4 of Appendix A of 40 CFR 60 shall be used for stack gas moisture.
  - (e) Concentration measurements shall be adjusted to negate the dilution effects of

introducing nonaffected gaseous streams into the vent streams prior to control or measurement. The following methods are specified for concentration measurements of organic compounds:

- (1) Method 18 of Appendix A of 40 CFR 60 may be used to determine HAP concentration in any control device efficiency determination.
- (2) Method 25 of Appendix A of 40 CFR 60 may be used to determine total gaseous nonmethane organic concentration for control efficiency determinations in combustion devices.
- (3) Method 25A of Appendix A of 40 CFR 60 may be used to determine the HAP or TOC concentration for control device efficiency determinations under the conditions specified in Method 25 of Appendix A of 40 CFR 60 for direct measurement of an effluent with a flame ionization detector, or in demonstrating compliance with the 20 ppmv TOC outlet standard. If Method 25A of Appendix A of 40 CFR 60 is used to determine the concentration of TOC for the 20 ppmv standard, the instrument shall be calibrated on methane or the predominant HAP. If calibrating on the predominant HAP, the use of Method 25A of Appendix A of 40 CFR 60 shall comply with § 63.1265(b)(5)(i)(A) through (C).
  - (i) The organic HAP used as the calibration gas for Method 25A, 40 CFR 60, Appendix A, shall be the single organic HAP representing the largest percent by volume.
  - (ii) The use of Method 25A, 40 CFR 60, Appendix A, is acceptable if the response from the high level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.
  - (iii) The span value of the analyzer must be less than 100 ppmv.
- (f) The methods in either § 63.1365(b)(6)(i) or (ii) shall be used to determine the concentration, in mg/dscm, of total HCl and chlorine. Concentration measurements shall be adjusted to negate the dilution effects of introducing nonaffected gaseous streams into the vent streams prior to control or measurement.
  - (1) Method 26 or 26A of 40 CFR 60, Appendix A.
  - (2) Any other method if the method or data have been validated according to the applicable procedures of Method 301 of 40 CFR 60, Appendix A.
- (g) Method 5 of appendix A of 40 CFR 60 shall be used to determine the concentration of particulate matter in exhaust gas streams from bag dumps and product dryers.
- (h) Wastewater analysis shall be conducted in accordance with § 63.144(b)(5)(i) through

(iii) of 40 CFR 63, Subpart G.

- (i) Method 22 of Appendix A of 40 CFR 60 shall be used to determine visible emissions from flares.

5.B.22 For Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, testing of process vents on equipment as part of a continuous process shall consist of three (3) one-hour runs. Gas stream volumetric flow rates shall be measured every 15 minutes during each 1-hour run. Organic HAP concentration shall be determined from samples collected in an integrated sample collected over the duration of each one-hour test run, or grab samples collected simultaneously with the flow rate measurements (every 15 minutes). For continuous gas streams, the emission rate used to determine compliance shall be the average emission rate of the three (3) test runs. (Ref.: 40 CFR 63, Subpart MMM, § 63.1365(b)(10))

5.B.23 For Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, the permittee shall demonstrate compliance with the process vent standards § 63.1362(b) using the procedures described below (Ref. 40 CFR 63, Subpart MMM, § 63.1365(c)(1) through (3)):

- (a) Compliance with the process vent standards in § 63.1362(b) shall be demonstrated in accordance with the provisions specified below:
- (1) Initial compliance with the emission limit cutoffs in § 63.1362(b)(2)(i) and (b)(4)(i) is demonstrated when the uncontrolled organic HAP emissions from the sum of all process vents within a process are less than or equal to 0.15 Mg/yr. Uncontrolled HAP emissions shall be determined using the procedures described in § 63.1365(c)(2).
  - (2) Initial compliance with the emission limit cutoffs in § 63.1362(b)(3)(i) and (b)(5)(i) is demonstrated when the uncontrolled HCl and chlorine emissions from the sum of all process vents within a process are less than or equal to 6.8 Mg/yr. Initial compliance with the emission limit cutoffs in § 63.1362(b)(5)(ii) and (iii) is demonstrated when the uncontrolled HCl and chlorine emissions are greater than or equal to 6.8 Mg/yr or greater than or equal to 191 Mg/yr, respectively. Uncontrolled emissions shall be determined using the procedures described in § 63.1365(c)(2).
  - (3) Initial compliance with the organic HAP percent reduction requirements specified in § 63.1362(b)(2)(ii), (b)(2)(iii), and (b)(4)(ii) is demonstrated by determining controlled HAP emissions using the procedures described in paragraph (c)(3) of this section, determining uncontrolled HAP emissions using the procedures described in § 63.1365(c)(2), and calculating the applicable percent reduction.

- (4) Initial compliance with the HCl and chlorine percent reduction requirements specified in § 63.1362(b)(3)(ii), (b)(5)(ii), and (b)(5)(iii) is demonstrated by determining controlled emissions of HCl and chlorine using the procedures described in § 63.1365(c)(3), determining uncontrolled emissions of HCl and chlorine using the procedures described in § 63.1365(c)(2), and calculating the applicable percent reduction.
  - (5) Initial compliance with the outlet concentration limits in § 63.1362(b)(2)(iv)(A), (b)(3)(ii), (b)(4)(ii)(A), (b)(5)(ii), and (b)(5)(iii) is demonstrated when the outlet TOC concentration is 20 ppmv or less and the outlet HCl and chlorine concentration is 20 ppmv or less. The permittee shall demonstrate compliance by fulfilling the requirements in § 63.1365(a)(6). If the permittee elects to develop an emissions profile by process as described in § 63.1365(b)(11)(iii)(A), uncontrolled emissions shall be determined using the procedures in § 63.1365(c)(2).
  - (6) Initial compliance with the alternative standard in § 63.1362(b)(6) is demonstrated by fulfilling the requirements in § 63.1365(a)(5).
  - (7) Initial compliance when using a flare is demonstrated by fulfilling the requirements in § 63.1365(a)(3).
  - (8) No initial compliance demonstration is required for control devices specified in § 63.1362(l).
- (b) In accordance with § 63.1365(c)(1)(i) through (v), the permittee shall calculate uncontrolled emissions according to the procedures described in § 63.1365(c)(2)(i) or (ii), as appropriate.

5.B.24 For Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, the permittee shall demonstrate initial compliance with the storage vessel standards in § 63.1362(c)(2) through (4) by fulfilling the requirements in either § 63.1365(d)(1), (2), (3), (4), (5), or (6), as applicable. The permittee shall demonstrate initial compliance with the planned routine maintenance provision in § 63.1362(c)(5) by fulfilling the requirements in § 63.1365(d)(7). (Ref: 40 CFR 63, Subpart MMM, § 63.1365(d))

5.B.25 For Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, if the permittee equips a Group 1 storage vessel with a closed-vent system and control device, the permittee shall demonstrate initial compliance with alternative standard in § 63.1362(c)(4) by fulfilling the requirements of § 63.1365(a)(5). (Ref: 40 CFR 63, Subpart MMM, § 63.1365(d)(6))

5.B.26 For Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 8587 PER20030001

7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, the permittee shall demonstrate initial compliance with the wastewater requirements by complying with the applicable provisions in § 63.145 of 40 CFR 63, Subpart G, except that the permittee need not comply with the requirement to determine visible emissions that is specified in § 63.145(j)(1) of 40 CFR 63, Subpart G, and references to compounds in Table 8 of 40 CFR 63, Subpart G are not applicable to 40 CFR 63, Subpart MMM. (Ref.: 40 CFR 63, Subpart MMM, § 63.1365(e))

- 5.B.27 For Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, the permittee shall install, operate, and maintain monitoring devices as specified in §63.1366(b)-(g) (Ref: 40 CFR 63, Subpart MMM, § 63.1366(b) through (g)):

During the initial compliance demonstration, maximum or minimum operating parameter levels, or other design and operating characteristics, as appropriate, shall be established for the emission sources that will indicate the source is in compliance. Test data, calculations, or information from the evaluation of the control device design, as applicable, shall be used to establish the operating parameter level or characteristic. (Ref 40 CFR Part 63, Subpart MMM §63.1366(a))

- 5.B.28 The permittee shall comply with the recordkeeping requirements in 40 CFR Part 63, subpart A as specified in Table 1 of 40 CFR Part 63, Subpart MMM and in paragraphs §63.1367(a)(1) through (5). (Ref: 40 CFR Part 63, Subpart MMM §63.1367(a))

- 5.B.29 The permittee must keep the records in §63.1367(b)(1) through (7) up-to-date and readily accessible. (Ref: 40 CFR Part 63, Subpart MMM §63.1367(b))

- 5.B.30 The permittee subject to the equipment leak standards in §63.1363 shall implement the recordkeeping requirements specified in §63.1363(g). All records shall be retained for a period of 5 years, in accordance with the requirements of 40 CFR Part 63, Subpart A §63.10(b)(1). (Ref.: 40 CFR Part 63, Subpart MMM §63.1367(c))

- 5.B.31 For a PAI process unit that is used to produce a given material for use as a PAI as well as for other purposes, the permittee shall keep records of the total production and the production for use as a PAI on a semiannual or more frequent basis if the use as a PAI is not the primary use. (Ref: 40 CFR Part 63, Subpart MMM §63.1367(g))

- 5.B.32 (a) Within 60 days after achieving the maximum production rate at which Emission Point 6436 will be operated, but no later than 180 days of any physical (or operational) change to the unit, the permittee is required to perform stack testing in accordance with EPA Reference Methods 1-5 to demonstrate compliance with the permitted emission limitations for PM, with EPA Reference Method to demonstrate compliance with NO<sub>x</sub>, and as proposed by the permittee and approved by DEQ to demonstrate compliance with chlorine and HCl, and biennially thereafter.

For the purpose of compliance demonstration, the permittee shall operate the sources

at maximum capacity. (Ref: APC-S-6, Section III.A.3(a))

- (b) The permittee shall record the flow rate, specific gravity, and nitrogen content of spent acid used in Finishing Train III during the performance testing of Emission Point 6436. The maximum hourly nitrogen input rate measured during successful performance tests shall become the maximum allowable nitrogen input rate for finishing Train III. The permittee shall not exceed the maximum allowable nitrogen input rate for Finishing Train III as determined during successful performance tests of Emission point 6436.
- (c) The permittee shall monitor the nitrogen content of the spent acid feed to Finishing Train III at least once per week, and using that value, calculate the flow rate of spent acid equivalent to the allowable maximum nitrogen input. An exceedance of the flow calculated thereby shall be deemed to be an exceedance of the maximum allowable nitrogen input rate. Also, the permittee shall continuously monitor and record the flow rate of spent acid to Finishing Train III.
- (d) The permittee shall maintain the caustic scrubbing solution pH at or above a value of 6.8.

5.B.33 The table below is the CAM plan for Emission Point 207.

	Indicator No. 1	Indicator No. 2
<b>Indicator</b>	<b>pH of Scrubbing Media (NaOH)</b>	<b>Scrubber Media Flow Rate (NaOH)</b>
<b>Measurement Approach</b>	pH is measured using a pH meter.	Flow rate is measured using a commercial flow meter.
<b>Monitoring Methods and Location</b>	Continuous measuring with alarm point.	Flow rate is recorded to ensure that scrubber re-circulation is within acceptable ranges.
<b>Indicator Range</b>	The scrubbing media pH will be maintained at a measurement equal to or greater than 6.8.  Low alarm point = 7.0  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.	The scrubbing media flow will be maintained at a rate of greater than 60 gallons per minute.  Low alarm point = 100 gpm  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.
<b>Data Collection Frequency</b>	Continuous.	Continuous.
<b>Averaging Period</b>	None.	None.
<b>Recordkeeping</b>	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.
<b>QA/QC</b>	pH meter calibrated monthly.	Flow meter calibrated monthly.

5.B.34 The table below is the CAM plan for Emission Point 208.

	Indicator No. 1	Indicator No. 2
<b>Indicator</b>	<b>pH of Scrubbing Media (NaOH)</b>	<b>Scrubber Media Flow Rate (NaOH)</b>
<b>Measurement Approach</b>	pH is measured using a pH meter.	Flow rate is measured using a commercial flow meter.
<b>Monitoring Methods and Location</b>	Continuous measuring with alarm point.	Flow rate is recorded to ensure that scrubber re-circulation is within acceptable ranges.
<b>Indicator Range</b>	The scrubbing media pH will be maintained at a measurement equal to or greater than 6.8.  Low alarm point = 7.0  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.	The scrubbing media flow will be maintained at a rate of greater than 60 gallons per minute.  Low alarm point = 100 gpm  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.
<b>Data Collection Frequency</b>	Continuous.	Continuous.
<b>Averaging Period</b>	None.	None.
<b>Recordkeeping</b>	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.
<b>QA/QC</b>	pH meter calibrated monthly.	Flow meter calibrated monthly.



5.B.35 The table below is the CAM plan for Emission Point 209.

	Indicator No. 1	Indicator No. 2
<b>Indicator</b>	<b>pH of Scrubbing Media (NaOH)</b>	<b>Scrubber Media Flow Rate (NaOH)</b>
<b>Measurement Approach</b>	pH is measured using a pH meter.	Flow rate is measured using a commercial flow meter.
<b>Monitoring Methods and Location</b>	Continuous measuring with alarm point.	Flow rate is recorded to ensure that scrubber re-circulation is within acceptable ranges.
<b>Indicator Range</b>	The scrubbing media pH will be maintained at a measurement equal to or greater than 6.8.  Low alarm point = 7.0  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.	The scrubbing media flow will be maintained at a rate of greater than 60 gallons per minute.  Low alarm point = 100 gpm  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.
<b>Data Collection Frequency</b>	Continuous.	Continuous.
<b>Averaging Period</b>	None.	None.
<b>Recordkeeping</b>	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.
<b>QA/QC</b>	pH meter calibrated monthly.	Flow meter calibrated monthly.

5.B.36 The table below is the CAM plan for Emission Point 506.

	<b>Indicator No. 1</b>
<b>Indicator</b>	<b>% Flue Gas Recirculation (FGR)</b>
<b>Measurement Approach</b>	<b>FGR will be measured using a Predictive Emissions Monitoring System (PEMS).</b>
<b>Monitoring Methods and Location</b>	<b>Continuous measuring.</b>
<b>Indicator Range</b>	<b>The FGR will be maintained at 15%. Alarm point = TBD If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.</b>
<b>Data Collection Frequency</b>	<b>Continuous.</b>
<b>Averaging Period</b>	<b>None.</b>
<b>Recordkeeping</b>	<b>Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.</b>
<b>QA/QC</b>	<b>PEMS undergoes an annual relative accuracy test..</b>

5.B.37 The table below is the CAM plan for Emission Point 6100.

	Indicator No. 1	Indicator No. 2	Indicator No. 3
<b>Indicator</b>	<b>Pressure Differential</b>	<b>Operational Inspection</b>	<b>Opacity</b>
<b>Measurement Approach</b>	Pressure differential is measured using a pressure transmitter.	Internal baghouse inspections will be conducted during general plant turnaround. External inspections occur quarterly.	Visual emissions are observed using Method 22.
<b>Monitoring Methods and Location</b>	Continuous measuring with alarm points.	Baghouse inspections will be conducted to assure that equipment and filter media are operating properly and the deterioration of equipment is not occurring.	Visible emissions evaluation (VEE) checks are performed to ensure equipment is operating properly and filter media is not deteriorating.
<b>Indicator Range</b>	Filter media will automatically pulse on a timed cycle. Alarm points = TBD If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly. Similarly, if the differential pressure drops to "0", or an abnormal level, an evaluation will occur and repairs made.	Evidence of deterioration of the bags and/or equipment. An excursion is defined as failure to conduct the inspection under the defined rule.	Stack: 10%
<b>Data Collection Frequency</b>	Continuous.	Once per quarter for external and once per turnaround for internal.	Daily observations using Method 22. If visible emissions are observed on two consecutive days, then Method 9 required
<b>Averaging Period</b>	None.	None	Averaging per EPA Method 9 if required.
<b>Recordkeeping</b>	Spare parts will be maintained Maintenance documented electronically. Data collected and archived electronically	Maintain records of all required maintenance activities during performed during the period and spare parts list.	Records must be kept daily of all VEEs.

<b>QA/QC</b>	Pressure transmitter calibrated monthly.	Filter media inspections will be performed to ensure equipment is operating properly and filter media is not deteriorating. Trained personnel will perform inspection, maintenance and recordkeeping.	Opacity observer trained in VEE and if a Method 9 evaluation is required, observer must be certified.
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5.B.38 The table below is the CAM plan for Emission Point 6207.

	Indicator No. 1	Indicator No. 2
<b>Indicator</b>	pH of Scrubbing Media (NaOH)	Scrubber Media Flow Rate (NaOH)
<b>Measurement Approach</b>	pH is measured using a pH meter.	Flow rate is measured using a commercial flow meter.
<b>Monitoring Methods and Location</b>	Continuous measuring with alarm point.	Flow rate is recorded to ensure that scrubber re-circulation is within acceptable ranges.
<b>Indicator Range</b>	The scrubbing media pH will be maintained at a measurement equal to or greater than 6.8.  Low alarm point = 7.0  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.	The scrubbing media flow will be maintained at a rate of greater than 60 gallons per minute.  Low alarm point = 100 gpm  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.
<b>Data Collection Frequency</b>	Continuous.	Continuous.
<b>Averaging Period</b>	None.	None.
<b>Recordkeeping</b>	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.
<b>QA/QC</b>	pH meter calibrated monthly.	Flow meter calibrated monthly.

5.B.39 The table below is the CAM plan for Emission Point 6208.

	Indicator No. 1	Indicator No. 2
<b>Indicator</b>	<b>pH of Scrubbing Media (NaOH)</b>	<b>Scrubber Media Flow Rate (NaOH)</b>
<b>Measurement Approach</b>	pH is measured using a pH meter.	Flow rate is measured using a commercial flow meter.
<b>Monitoring Methods and Location</b>	Continuous measuring with alarm point.	Flow rate is recorded to ensure that scrubber re-circulation is within acceptable ranges.
<b>Indicator Range</b>	The scrubbing media pH will be maintained at a measurement equal to or greater than 6.8.  Low alarm point = 7.0  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.	The scrubbing media flow will be maintained at a rate of greater than 60 gallons per minute.  Low alarm point = 100 gpm  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.
<b>Data Collection Frequency</b>	Continuous.	Continuous.
<b>Averaging Period</b>	None.	None.
<b>Recordkeeping</b>	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.
<b>QA/QC</b>	pH meter calibrated monthly.	Flow meter calibrated monthly.

5.B.40 The table below is the CAM plan for Emission Point 6303.

	Indicator No. 1	Indicator No. 2
<b>Indicator</b>	<b>Pressure Differential</b>	<b>Operational Inspection</b>
<b>Measurement Approach</b>	Pressure differential is measured using a pressure transmitter.	Internal baghouse inspections will be conducted during general plant turnaround. External inspections occur quarterly.
<b>Monitoring Methods and Location</b>	Continuous measuring with alarm points.	Baghouse inspections will be conducted to assure that equipment and filter media are operating properly and the deterioration of equipment is not occurring.
<b>Indicator Range</b>	Filter media will automatically pulse on a timed cycle.  Alarm points = TBD  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly. Similarly, if the differential pressure drops to "0", or an abnormal level, an evaluation will occur and repairs made.	Evidence of deterioration of the bags and/or equipment. An excursion is defined as failure to conduct the inspection under the defined rule.
<b>Data Collection Frequency</b>	Continuous.	Once per quarter for external and once per turnaround for internal.
<b>Averaging Period</b>	None.	None
<b>Recordkeeping</b>	Spare parts will be maintained. Maintenance documented electronically. Data collected and archived electronically	Maintain records of all required maintenance activities during performed during the period and spare parts list.
<b>QA/QC</b>	Pressure transmitter calibrated monthly.	Filter media inspections will be performed to ensure equipment is operating properly and filter media is not deteriorating. Trained personnel will perform inspection, maintenance and recordkeeping.

5.B.41 The table below is the CAM plan for Emission Point 6506.

	<b>Indicator No. 1</b>
<b>Indicator</b>	<b>% Flue Gas Recirculation (FGR)</b>
<b>Measurement Approach</b>	<b>FGR will be measured using a Predictive Emissions Monitoring System (PEMS).</b>
<b>Monitoring Methods and Location</b>	<b>Continuous measuring.</b>
<b>Indicator Range</b>	<b>The FGR will be maintained at 15%. Alarm point = TBD If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.</b>
<b>Data Collection Frequency</b>	<b>Continuous.</b>
<b>Averaging Period</b>	<b>None.</b>
<b>Recordkeeping</b>	<b>Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.</b>
<b>QA/QC</b>	<b>PEMS undergoes an annual relative accuracy test..</b>

5.B.42 The table below is the CAM plan for Emission Point 6507.

	<b>Indicator No. 1</b>
<b>Indicator</b>	<b>% Flue Gas Recirculation (FGR)</b>
<b>Measurement Approach</b>	<b>FGR will be measured using a Predictive Emissions Monitoring System (PEMS).</b>
<b>Monitoring Methods and Location</b>	<b>Continuous measuring.</b>
<b>Indicator Range</b>	<b>The FGR will be maintained at 15%. Alarm point = TBD If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.</b>
<b>Data Collection Frequency</b>	<b>Continuous.</b>
<b>Averaging Period</b>	<b>None.</b>
<b>Recordkeeping</b>	<b>Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.</b>
<b>QA/QC</b>	<b>PEMS undergoes an annual relative accuracy test..</b>



5.B.43 The table below is the CAM plan for Emission Point 6804.

	Indicator No. 1	Indicator No. 2
<b>Indicator</b>	<b>pH of Scrubbing Media (NaOH)</b>	<b>Scrubber Media Flow Rate (NaOH)</b>
<b>Measurement Approach</b>	pH is measured using a pH meter.	Flow rate is measured using a commercial flow meter.
<b>Monitoring Methods and Location</b>	Continuous measuring with alarm point.	Flow rate is recorded to ensure that scrubber re-circulation is within acceptable ranges.
<b>Indicator Range</b>	The scrubbing media pH will be maintained at a measurement o equal to or greater than 6.8.  Low alarm point = 7.0  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.	The scrubbing media flow will be maintained at a rate of greater than 60 gallons per minute.  Low alarm point = 100 gpm  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.
<b>Data Collection Frequency</b>	Continuous.	Continuous.
<b>Averaging Period</b>	None.	None.
<b>Recordkeeping</b>	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.
<b>QA/QC</b>	pH meter calibrated monthly.	Flow meter calibrated monthly.

5.B.44 The table below is the CAM plan for Emission Point 6805.

	Indicator No. 1	Indicator No. 2
<b>Indicator</b>	<b>pH of Scrubbing Media (NaOH)</b>	<b>Scrubber Media Flow Rate (NaOH)</b>
<b>Measurement Approach</b>	pH is measured using a pH meter.	Flow rate is measured using a commercial flow meter.
<b>Monitoring Methods and Location</b>	Continuous measuring with alarm point.	Flow rate is recorded to ensure that scrubber re-circulation is within acceptable ranges.
<b>Indicator Range</b>	The scrubbing media pH will be maintained at a measurement equal to or greater than 6.8.  Low alarm point = 7.0  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.	The scrubbing media flow will be maintained at a rate of greater than 60 gallons per minute.  Low alarm point = 100 gpm  If an alarm is activated, the unit will be thoroughly evaluated and repairs made promptly.
<b>Data Collection Frequency</b>	Continuous.	Continuous.
<b>Averaging Period</b>	None.	None.
<b>Recordkeeping</b>	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.	Spare parts maintained. Maintenance documented electronically. Data collected and archived electronically.
<b>QA/QC</b>	pH meter calibrated monthly.	Flow meter calibrated monthly.

5.B.45 The permittee shall also comply with the applicable CAM requirements set forth in 40 CFR Part 64, found in Appendix G of this permit. Specifically, the permittee shall conduct required monitoring and recordkeeping in accordance with 64.7 through 64.9.

- 5.B.46 For Emission Point 1234, the permittee must operate and maintain the engine according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer over the entire life of the engine. In addition, the permittee may only change those settings that are permitted by the manufacturer. (Ref.: 40 CFR 60.4206 and 60.4211(a))
- 5.B.47 For Emission Point 1234, the permittee shall install a non-resettable hour meter prior to startup of the engine. (Ref.: 40 CFR 60.4209(a))

C. Specific Reporting Requirements

- 5.C.1 The permittee shall submit a written test protocol at least thirty (30) days prior to all 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).

The permittee shall submit a test report of the results of each stack test required above within thirty (30) days of the test date. (Ref: APC-S-6, Section III.A.3(c))

- 5.C.2 The permittee shall submit a written report by April 30<sup>th</sup> and October 30<sup>th</sup> of any exceedances in the continuously monitored pH limitations. (Ref: APC-S-6, Section III.A.3(c))
- 5.C.3 For Emission Point s 411, 426, 6100, 6304, 6305, 6411, and 6412, the permittee shall submit written reports by April 30<sup>th</sup> and October 30<sup>th</sup> of any opacity exceedances. Opacity exceedances are defined as all six (6) minute periods during which the average opacity is greater than ten (10) percent. (Re.: 40 CFR 60.735.(c)(1))
- 5.C.4 For Emission Points 801, 6804, and 6805, the permittee shall submit written reports by April 30<sup>th</sup> and October 30<sup>th</sup> of any exceedances of control device operating parameters required to be monitored by 5.B.10.(c). Exceedances are defined as:
- (a) Any daily two (2) hour average of the wet scrubber pressure drop determined as described in 5.B.10.(c) that is less than 90 percent of the average value recorded according to 40 CFR 60.736(c)(2) during the most recent performance test that demonstrated compliance with the PM standard; or

Each daily wet scrubber liquid flow rate recorded as described in 5.B.10.(c) that is less than 80 percent or greater than 120 percent of the average value recorded according to 40 CFR 60.736(c)(3) during the most recent performance test that demonstrated compliance with the PM standard.

(Ref: 40 CFR 60.735.(c)(2) & (3))

5.C.5 (a) For Emission Points 506, 6506, and 6507, the permittee shall submit excess emission reports for any calendar quarter during which there are excess emissions. If there are no excess emissions during the calendar quarter, the permittee shall submit a report by April 30<sup>th</sup> and October 30<sup>th</sup> stating that no excess emissions occurred during the semiannual reporting period. Excess emissions are defined as any calculated thirty (30) day rolling average nitrogen oxides emission rate, as determined by 5.B.11.(b), which exceeds the nitrogen oxides emission limitation. (Re.: 40 CFR 60.49b.(h))

(b) The permittee shall submit a quarterly report containing the information recorded under 5.B.11.(i). All quarterly reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar quarter. (Ref: 40 CFR 60.49b.(i))

5.C.6 For Emission Points 7089 through 7105 and 7113, the permittee shall submit written reports by April 30<sup>th</sup> and October 30<sup>th</sup> of the results of all opacity observations made using the method detailed in 5.B.14 to demonstrate compliance with the opacity limitations. (Ref: 40 CFR 60.676.(f))

5.C.7 For Emission Points 5094, 6100, 6207, 6208, 6302-6306, 6411, 6412, 6424, 6425, 6430, 6433, 6436, 6440, 6506, 6507, 6804, and 6805, the permittee must provide in writing the date of actual startup and the date maximum production rates are reached. Each date must be provided no later than ten (10) days after the actual date.

For Emission Points 202, 301, 303-310, 318, 319, 323, 324, 506, 702, 705, and 730, the permittee must provide written notification of completion of any physical or operational change. The notification shall include the date of completion of the change, a description of the precise nature of the change, the date of startup in the new operational mode, and the date maximum production rates are reached. Each date must be provided no later than ten (10) days after the actual date. (Ref: APC-S-6, Section III.A.3(c))

5.C.8 For all fuel burning equipment, the permittee shall submit written reports by April 30<sup>th</sup> and October 30<sup>th</sup> of the type and quality of fuel combusted. (Ref: APC-S-6, Section III.A.3(c))

5.C.9 For Emission Point 202, the permittee shall submit a written report to include all recordkeeping required by 5.B.6 (b) and (c). The reports shall be due thirty (30) days after the end of each calendar quarter. The reports should quantify total hours of waste gas venting for the quarter and the previous twelve (12) month period on a rolling total. (Ref: APC-S-6, Section III.A.3(c))

Per 5.B.6 and following the first successful test of Emission Point 202, the permittee shall calculate the allowable production rate for chlorination section production lines venting incinerator by-pass gas, and submit the calculations to DEQ for approval.

5.C.10 For Emission Point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, the

permittee shall comply with the reporting requirements of § 63.1368 as specified below (Ref.: 40 CFR 63, Subpart MMM, § 63.1368(b) through (l)):

- (a) Application for Approval of Construction or Reconstruction. The permittee shall, if subject to § 63.5(b)(3) of 40 CFR 63, Subpart A, shall submit to the Administrator an application for approval of the construction of a new major source, the reconstruction of a major affected source subject to the standards. The application shall be prepared in accordance with § 63.5(d) of 40 CFR 63, Subpart A. (Ref. 40 CFR Part 63, Subpart MMM §63.1368(c))
  
- (b) Notification of Continuous Monitoring System Performance Evaluation. The permittee, if required to conduct a performance evaluation for a continuous monitoring system that is used to comply with the alternative standard in § 63.1362(b)(6) or (c)(4) shall notify the Administrator of the date of the performance evaluation as specified in § 63.5(d) of Subpart A. (Ref. 40 CFR Part 63, Subpart MMM §63.1368(d))
  
- (c) Periodic Reports. The permittee shall prepare Periodic Reports as specified below: (Ref. 40 CFR Part 63, Subpart MMM §63.1368(g))
  - (1) Except as provided in § 63.1368(g)(1)(i) and (ii), the permittee shall submit Periodic Reports semiannually, beginning 60 (sixty) operating days after the end of the applicable reporting period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status report is due. The Notification of Compliance Status report required under § 63.9(h) of 40 CFR 63, Subpart A, shall be submitted no later than 150 calendar days after the compliance date. Quarterly reports shall be submitted when the monitoring data are used to comply with the alternative standards in § 63.1362(b)(6) or (c)(4) and the source experiences excess emissions. Once an affected source reports excess emissions, the affected source shall follow a quarterly reporting format until a request to reduce reporting frequency is approved.
  
  - (2) The permittee shall include in the Periodic Report the information in § 63.1368(g)(2)(i) through (vi), as applicable.
  
- (d) Notification of Process Change. Except as specified in § 63.1368(h)(2), whenever a process change is made, or any of the information submitted in the Notification of Compliance Status report changes, the permittee shall submit a report quarterly. The report may be submitted as part of the next Periodic Report required under § 63.1368(g). The report shall include the information specified in § 63.1368(h)(1)(i) through (iv), as applicable. (Ref: 40 CFR Part 63, Subpart MMM §63.1368(h))
  
- (e) Reports of Startup, Shutdown, and Malfunction. The startup, shutdown, and

malfunction reports shall be submitted on the same schedule as the Periodic Reports required under § 63.1368(g) instead of the schedule specified in § 63.10(d)(5)(i) of 40 CFR 63, Subpart A. The reports shall include the information specified in § 63.1367(a)(3)(i) through (iii) and shall contain the name, title, and signature of the permittee or other responsible official who is certifying its accuracy. Reports are only required if a startup, shutdown, or malfunction occurred during the reporting period. Any time the permittee takes an action that is not consistent with the procedures specified in the startup, shutdown, and malfunction plan, the permittee shall submit an immediate startup, shutdown, and malfunction report as specified in 40 CFR Part 63, Subpart A §63.10(d)(5)(ii). (Ref: 40 CFR Part 63, Subpart MMM §63.1368(i))

- (f) Reports of Equipment Leaks. For equipment subject to § 63.1363, the permittee shall implement the reporting requirements specified in § 63.1363(h). Copies of all reports shall be retained as records for a period of five (5) years, in accordance with the requirements of 40 CFR Part 63, Subpart A §63.10(b)(1). (Ref: 40 CFR Part 63, Subpart MMM §63.1368(j))
- (g) Notification of Performance Test and Test Plan. The permittee shall notify the Administrator of the planned date of a performance test at least 60 days before the test in accordance with 40 CFR Part 63, Subpart A §63.7(b). The permittee must submit the test plan required by 40 CFR Part 63, Subpart A §63.79(c) and the emission profile required by 40 CFR Part 63 Subpart MMM §63.1365(b)(10)(ii) with the notification of the performance test. (Ref: 40 CFR Part 63, Subpart MMM §63.1368(m))

5.C.11 For Emission Points 207, 208, 209, and 6207, the permittee shall submit notification as provided and required by 40 CFR 60.7 and include the required information outlined in 40 CFR 60.48c(a)(1), (2), (3), and (4), Subpart Dc where applicable.

5.C.12 When either Emission Point 6506 or Emission Point 6507 is started up, Emission Points 502, 508, and 509, shall all be permanently shut down, and notification of the date of shutdown of the units shall be made within ten (10) days of the actual date.

5.C.13 For Emission Points 202, 207, 208, 209, 6207, and 6208, the sum of TRS emissions shall not exceed a total of 155.6 tons per year. Total TRS emissions shall be determined monthly per 5.B.4, and the annual TRS emissions shall be calculated as a twelve (12) month rolling total. The reports shall be submitted on a semi-annual basis and by April 30th and October 30th of each year.

5.C.14 The permittee seeking to comply with 60.670(d) shall submit all reports required in 60.676.

## SECTION 6. ALTERNATIVE OPERATING SCENARIOS

- 6.1 For emission point(s) 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, as an alternative to the provisions in § 63.1362 (b) (2) through (5), the permittee may route emissions from a process vent to a control device or series of control devices achieving an outlet TOC concentration, as calibrated on methane or the predominant HAP, of 20 ppmv or less, and an outlet concentration of HCl and Cl<sub>2</sub> of 20 ppmv or less. Any process vents within a process that are not routed to such a control device or series of control devices must be controlled in accordance with the provisions of §§ 63.1362 (b)(2)(ii), (b)(2)(iii), (b)(2)(iv), (b)(3)(ii), (b)(3)(iii), (b)(4)(ii), (b)(5)(ii), or (b)(5)(iii) as applicable. (Ref. 40 CFR Part 63, Subpart MMM §63.1362(b)(6))
- 6.2 For emission point(s), 701, 705, 706, 728, 729, 731, 732, 733, 734, 735, 736, 7160, 7161, 7340, 7341, 7350, 7351, 7352, 7360, 7361, 7362, 7380, 7410 thru 7415, 7470, and 7471, as an alternative to the provisions in § 63.1362(c)(2) and (3), the permittee may route emissions from storage vessels to a control device or series of control devices achieving an outlet TOC concentration, as calibrated on methane or the predominant HAP, of 20 ppmv or less, and an outlet concentration of hydrogen chloride and chlorine of 20 ppmv or less. (Ref. 40 CFR Part 63, Subpart MMM §63.1362(c)(4))
- 6.3 When choosing to comply with Condition 6.1, the facility must maintain a log record of the date and time upon which compliance with the alternative operating scenario commences in accordance with APC-S-6, Section III.A.9(a). The facility must comply with all applicable requirements set forth in 40 CFR Part 63, Subpart MMM, while utilizing this compliance option. In addition, the facility must record the date and time upon which compliance returns to the primary compliance method specified in 3.B.30(a). (Ref.: APC-S-6, Section III.A.9)
- 6.4 When choosing to comply with Condition 6.2, the facility must maintain a log record of the date and time upon which compliance with the alternative operating scenario commences in accordance with APC-S-6, Section III.A.9(a). The facility must comply with all applicable requirements set forth in 40 CFR Part 63, Subpart MMM, while utilizing this compliance option. In addition, the facility must record the date and time upon which compliance returns to the primary compliance method specified in 3.B.30(b). (Ref.: APC-S-6, Section III.A.9)

## 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
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
MMBTUH	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
NM VOC	Non-Methane Volatile Organic Compounds
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM <sub>10</sub>	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 <sub>2</sub>	Sulfur Dioxide
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOC	Volatile Organic Compound

# **APPENDIX B**

**40 CFR 82**

**PROTECTION OF STRATOSPHERIC OZONE**

# **APPENDIX C**

**40 CFR 63**

**Subpart A – General Provisions**

# **APPENDIX D**

**40 CFR 63**

**Subpart G – National Emission Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater**

# **APPENDIX E**

**40 CFR 63**

**Subpart MMM – National emission Standards for Hazardous Air Pollutants For Pesticide  
Active Ingredient Production**

# **APPENDIX F**

**40 CFR 63**

**Subpart H – National Emission Standards for Hazardous Air Pollutants from the Synthetic  
Organic Chemical Manufacturing Industry for Equipment Leaks**



# **APPENDIX G**

**40 CFR 64**

**Compliance Assurance Monitoring**