

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

**TO OPERATE AIR EMISSIONS EQUIPMENT**

**THIS CERTIFIES THAT**

**E.I. duPont de Nemours & Company - DeLisle Plant  
7685 Kiln-DeLisle Road  
Pass Christian, Mississippi  
Harrison 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: May 9, 2006**

**Effective Date: As specified herein.**

**Modified Date: August 11, 2009; OCT 12 2010**

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**

  
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**AUTHORIZED SIGNATURE**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Expires: April 30, 2011**

**Permit No.: 1020-00115**



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## SECTION 1. GENERAL CONDITIONS

- 1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (Ref.: APC-S-6, Section III.A.6.a.)
- 1.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (Ref.: APC-S-6, Section III.A.6.b.)
- 1.3 This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (Ref.: APC-S-6, Section III.A.6.c.)
- 1.4 This permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: APC-S-6, Section III.A.6.d.)
- 1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: APC-S-6, Section III.A.6.e.)
- 1.6 The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. (Ref.: APC-S-6, Section III.A.5.)
- 1.7 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation APC-S-6.
  - (a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass

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

- (b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee. (Ref.: APC-S-6, Section VI.A.2.) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time. (Ref.: APC-S-6, Section VI.D.2.)
- (c) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due. (Ref.: APC-S-6, Section VI.D.)
- (d) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition. (Ref.: APC-S-6, Section VI.C.)

1.8 No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (Ref.: APC-S-6, Section III.A.8.)

- 1.9 Any document required by this permit to be submitted to the DEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (Ref.: APC-S-6, Section II.E.)
- 1.10 The permittee shall allow the DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- (a) enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
  - (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - (c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - (d) as authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. (Ref.: APC-S-6, Section III.C.2.)
- 1.11 Except as otherwise specified or limited herein, the permittee shall have necessary sampling ports and ease of accessibility for any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere. (Ref.: APC-S-1, Section 3.9(a))
- 1.12 Except as otherwise specified or limited herein, the permittee shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board for air pollution control equipment that was in existence prior to May 8, 1970. (Ref.: APC-S-1, Section 3.9(b))
- 1.13 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source. (Ref.: APC-S-6, Section III.F.1.)
- 1.14 Nothing in this permit shall alter or affect the following:
- (a) the provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;
  - (b) the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

- (c) the applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act.
  - (d) the ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act. (Ref.: APC-S-6, Section III.F.2.)
- 1.15 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required pursuant to Section 112(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, 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>AA-000</b>	<b>Plantwide</b>
<b>AA-001</b>	<b>Plantwide Fugitive Emissions (formerly identified as emission point AA-210)</b>
<b>Line 1 and Line 2 Coke Unloading and Storage Process</b>	
AA-101	The Coke unloading building (formerly identified as emission point AA-008A)
AA-102	The No. 1 unloading baghouse controlling particulate matter emissions from the Coke unloading and storage process (formerly identified as emission point AA-008B-1)
AA-103	The No.2 unloading baghouse controlling particulate matter emissions from the Coke unloading and storage process (formerly identified as emission point AA-008B-2)
AA-104	The Coke Transfer Silo with a baghouse for control of particulate matter emissions (formerly identified as emission point AA-008C)
AA-105	The Coke Storage Silo with a baghouse for control of particulate matter emissions (formerly identified as emission point AA-008D)
AA-107	The Coke Bin with a baghouse for control of particulate matter emissions (formerly identified as emission point AA-008F)
<b>The Ore Unloading Process (formerly identified as emission point AA-008K)</b>	
AA-201	Ore Railcar Unloading Building
AA-202	The Transporting Wet Recovered Ore in Trucks
AA-203	Virgin Ore Storage Pile and Virgin Ore Handling
AA-204	Recovered Ore Storage Pile
AA-205	Recovered Ore Handling
<b>Chlorine Unloading and Storage</b>	
AA-301	The Chlorine Unloading and Storage Process with an associated caustic scrubber for control of chlorine emissions (formerly identified as emission point AA-503)

Emission Point	Description
<b>Line 1 and Line 2 TiCl<sub>4</sub> Intermediate Process</b>	
AB-101	Line 1 Wet Ore Bin with a baghouse for control of particulate matter (formerly identified as emission point AA-108A)
AB-102	Line 1 Ore Dryer (30 MMBTU/hr heat input capacity) equipped with dual cyclones and a water scrubber for emission control (formerly identified as emission point AA-101)
AB-103	Line 1 Dry Ore Bin with a baghouse for control of particulate matter (formerly identified as emission point AA-108B)
AB-104	Line 1 Mix Bin and Solids Feed Pumps with a baghouse for control of particulate matter (formerly identified as emission point AA-108C)
AB-106	The Line 1 Emergency Generator (1,000 kW) with 1,500 hp Compression Ignition (CI) Reciprocating Internal Combustion Engine (RICE) Mfd. 2005
AB-108	Line 1 Cooling Tower (DuPont Ref. 1053; Oxidation 1)
AB-109	The Startup scrubber controlling particulate matter emissions generated from the initial heating up of the chlorinator reactors and prior to chlorine being introduced (formerly identified as emission point AA-312)
AB-201	Line 2 Wet Ore Bin with a baghouse for control of particulate matter (formerly identified as emission point AA-208A)
AB-202	Line 2 Ore Dryer (22 MMBTU/hr heat input capacity) equipped with a low NO <sub>x</sub> burner, a cyclone, and two (2) baghouses operating in parallel for emission control (formerly identified as emission point AA-201)
AB-203	Line 2 Dry Ore Bin with a baghouse for control of particulate matter (formerly identified as emission point AA-208B)
AB-204	Line 2 Mix Bin, Solids Feed Pumps, and Chlorinator Reactor Feed Pipe with a baghouse for control of particulate matter (formerly identified as emission point AA-208C)
AB-206	The Line 2 Emergency Generator (1,000 kW) with 1,500 hp CI RICE Mfd. 2005
AB-208	Line 2 Cooling Towers (DuPont Ref. 3053; Oxidation 2 and 3)

Emission Point	Description
<b>Line 1 and Line 2 HCl Recovery</b>	
AC-101	Line 1 Reaction Fume Disposal with 4- stage reaction fume disposal scrubbing system with an additional Cl <sub>2</sub> emergency scrubber, followed by a thermal oxidizer inlet scrubber, thermal oxidizer, and thermal oxidizer outlet scrubber with quench chamber, dual reverse-scrubbers, and cyclonic gas-liquid separator (formerly identified as emission point AA-102). The thermal oxidizer is equipped with a ultra low NO <sub>x</sub> burner (Heat input capacity of 40 MMBTU/hr), and one ultra low NO <sub>x</sub> auxiliary burner (Heat input capacity of 10 MMBTU/hr)
AC-106	Line 1 Thermal Oxidizer Uptime Stack (This stack will vent only products of natural gas combustion during downtimes of the process. Maintaining a heat source during these periods will permit the temperature of the refractory in the Thermal Oxidizer to remain constant, thereby keeping the Thermal Oxidizer readily more available during process shutdowns and startups.)
AC-102	Line 1 Maintenance Vacuum Scrubber controlling emissions during equipment maintenance activities from both Line 1 and Line 2 TiCl <sub>4</sub> Intermediate and HCl Recovery Process (formerly identified as emission point AA-106)
AC-201	Line 2 Reaction Fume Disposal with 4- stage reaction fume disposal scrubbing system with an additional Cl <sub>2</sub> emergency scrubber, followed by a thermal oxidizer inlet scrubber, thermal oxidizer, and thermal oxidizer outlet scrubber with quench chamber, dual reverse-scrubbers, and cyclonic gas-liquid separator (formerly identified as emission point AA-202). The thermal oxidizer is equipped with a ultra low NO <sub>x</sub> burner (Heat input capacity of 40 MMBTU/hr), and one ultra low NO <sub>x</sub> auxiliary burner (Heat input capacity of 10 MMBTU/hr)
AC-206	Line 2 Thermal Oxidizer Uptime Stack (This stack will vent only products of natural gas combustion during downtimes of the process. Maintaining a heat source during these periods will permit the temperature of the refractory in the Thermal Oxidizer to remain constant, thereby keeping the Thermal Oxidizer readily more available during process shutdowns and startups.)
AC-202	Line 2 Maintenance Vacuum scrubber (formerly identified as emission point AA-206) controlling emissions only when Emission Point AC-102 is down during equipment maintenance activities from both Line 1 and Line 2 TiCl <sub>4</sub> Intermediate and HCl Recovery Process



Emission Point	Description
<b>Iron Chloride Storage and Disposal</b>	
AD-101	A water scrubber that controls HCl fumes generated from the separation process for recapturing coke and ore fines entrained in the iron chloride solution generated in the TiCl <sub>4</sub> Intermediate Process (formerly identified as emission point AA-501 and emission point AA-014)
AD-102	A water scrubber that controls fumes from five rubber-lined concrete vaults used to store iron chloride and a weak HCl solution (formerly identified as emission point AA-502 and emission point AA-015)
AD-103	Diatomaceous earth storage silo equipped with a baghouse for emission control (formerly identified as emission point AA-008J)
AD-104	No. 1 Perkins Pump with a CI RICE (86 hp) Mfd. 2006
AD-105	No. 2 Perkins Pump with a CI RICE (70 hp) Mfd. 1997
AD-106	No. 3 Perkins Pump with a CI RICE (70 hp) Mfd. 1997
AD-107	No. 4 Perkins Pump with a CI RICE (70 hp) Mfd. 1997
AD-132	6" Gorman-Rupp Pump with a CI RICE (68 hp) Mfd. 2002
AD-139	Solids Pond Return Pump with a CI RICE (150 hp) Mfd. 2005
AD-150	Dredge Pump, PH-29, with a diesel-fired CI RICE (272 hp) Mfd. 2000
AD-151	Dredge Pump, PH-33, with a diesel-fired CI RICE (300 hp) Mfd. 2008
AD-152	Dredge Pump, PH-39, with a diesel-fired CI RICE (300 hp) Mfd. 2004
AD-153	Dredge Pump, PH-49, with a diesel-fired CI RICE (300 hp) Mfd. 2005
<b>Steam Generation</b>	
AF-101A	Boiler No. 1 with a heat input capacity of 209 MMBTU/hr when firing Coal and 18 MMBTU/hr when firing Fuel Oil. The boiler is equipped with an Electrostatic Precipitator for emission control. The boiler shares a common stack with Boiler No. 2. (Formerly identified as emission point AA-307A)
AF-101B	Boiler No. 2 with a heat input capacity of 209 MMBTU/hr when firing Coal and 18 MMBTU/hr when firing Fuel Oil. The boiler is equipped with an Electrostatic Precipitator for emission control. The boiler shares a common stack with Boiler No. 1. (Formerly identified as emission point AA-307B)
AF-102	The coal boilers' ash storage silo with a baghouse for control of particulate matter (formerly identified as emission point AA-008G)

<b>Emission Point</b>	<b>Description</b>
AF-103	Boiler No. 3 with a heat input capacity of 231 MMBTU/hr and fired only on natural gas and/or landfill gas. The boiler is equipped with a low NOx burner with flue gas recirculation (FGR) for control of NOx emissions. (Formerly identified as emission point AA-207)
AF-143	Power Emergency Generator (750 kW) with a 1,186 hp CI RICE Mfd. 2005
AF-146	438 Power Cooling Tower
AF-151	Emergency Firewater Pump with a CI RICE (170 hp) Mfd. 1979
AF-202 (upon certification of construction)	A temporary boiler with a heat input capacity equal to or greater than 101 MMBTU/hr but less than or equal to 231 MMBTU/hr and fired only on natural gas. The boiler must be equipped with a low NOx burner with flue gas recirculation (FGR) for control of NOx emissions.
<b>Line 1 and Line 2 TiCl<sub>4</sub> Purification Process</b>	
AG-101	The common stack for the Titanium Tetrachloride (TiCl <sub>4</sub> ) Purification Process. The Line I TiCl <sub>4</sub> Purification System, the Line II TiCl <sub>4</sub> Purification System, and the Reliability TiCl <sub>4</sub> Purification System vent through one of three 2-stage scrubbing systems, which receives process waste gases from one or more of the Line I TiCl <sub>4</sub> Purification System, the Line II TiCl <sub>4</sub> Purification System, the Reliability TiCl <sub>4</sub> Purification System, the Iron Chloride Tanks Scrubber, and the Spray Condenser Discharge (SCD) Tank. (Formerly identified as emission point AA-212 and emission point 211)
<b>Line 1 and Line 2 TiCl<sub>4</sub> Oxidation</b>	
AH-101	Line 1 TiCl <sub>4</sub> Vaporizer vent stack (formerly identified as emission point AA-104) equipped with an ultra-low NOx burner (40.0 MMBTU/hr heat input capacity)
AH-102	Line 1 Oxygen Preheater (formerly identified as emission point AA-105) equipped with a low NOx burner (15.0 MMBTU/hr heat input capacity)
AH-103	Line 1 Additive Storage Bin vent equipped with a venture scrubber for control of particulate matter emissions (formerly identified as emission point AA-116A)
AH-104	Line 1 Additive Feeder equipped with a scrubber for control of particulate matter emissions (formerly identified as emission point AA-116B)
AH-106	A 54,000 gallon alternative fuel oil storage tank (formerly identified as emission point AA-504)

<b>Emission Point</b>	<b>Description</b>
AH-107	Line 1 and Line 2 TiCl <sub>4</sub> Oxidation Process equipped with a scrubber for emission control (formerly identified as emission point AA-013). Line 1 Scrubs Transfer Bin (formerly identified as emission point AH-105 and AA-117) and Line 2 Scrubs Transfer Bin (formerly identified as emission point AH-205 and AA-217) have been tied into this emission point, thereby eliminating former emission points AH-105 and AH-205.
AH-201	Line 2 TiCl <sub>4</sub> Vaporizer Economizer vent stack (formerly identified as emission point AA-204) equipped with an ultra-low NO <sub>x</sub> burner (40.0 MMBTU/hr heat input capacity)
AH-202	Line 2 Oxygen Preheater Economizer vent stack (formerly identified as emission point AA-205) equipped with a low NO <sub>x</sub> burner (15.0 MMBTU/hr rated capacity)
AH-203	Line 2 Additive Storage Bin vent equipped with a Venturi scrubber for control of particulate matter emissions (formerly identified as emission point AA-216A)
AH-204	Line 2 Additive Feeder equipped with a scrubber for control of particulate matter emissions (formerly identified as emission point AA-216B)
AH-206	A 20,054 gallon high purity fuel oil storage tank
AH-207	A 20,054 gallon high purity fuel oil storage tank
<b>Pigment Treatment Process</b>	
AI-176	Two (2) HCl Storage Tanks equipped with a scrubber for emission control (formerly identified as emission point AA-060)
AI-177	Finishing Cooling Tower (DuPont Ref. 1210)
<b>Pigment Drying Process</b>	
AJ-101	Line 1 Product Dryer (75.0 MMBTU/hr heat input capacity) equipped with a low NO <sub>x</sub> burner and two (2) baghouses (Baghouses 1 and 2), a water scrubber, and a cyclone for emission control (formerly identified as emission point AA-103).
AJ-201	Line 2 Product Dryer (90.0 MMBTU/hr heat input capacity) equipped with a low NO <sub>x</sub> burner and three (3) baghouses (Baghouses 4, 5, and 6) for emission control (formerly identified as emission point AA-203). Note: A portion of the Product Dryer exhaust gas will be recycled back through the dryer to reduce emissions of VOC.

Emission Point	Description
<b>Pigment Grinding and Packaging Process</b>	
AK-101	The No. 1 Pigment Grinding Feed Bin (formerly identified as emission point AA-108D). The feed bin has a dedicated baghouse for control of particulate matter emissions. The baghouse has a dedicated stack which vents to the atmosphere. Note: The feed bin can receive pigment from either Line 1 or Line 2 Product Dryer.
AK-102	The No. 2 Pigment Grinding Feed Bin (formerly identified as emission point AA-108D). The feed bin has a dedicated baghouse for control of particulate matter emissions. The baghouse has a dedicated stack which vents to the atmosphere. Note: The feed bin can receive pigment from either Line 1 or Line 2 Product Dryer.
AK-103	The No. 3 Pigment Grinding Feed Bin (formerly identified as emission point AA-108D). The feed bin has a dedicated baghouse for control of particulate matter emissions. The baghouse has a dedicated stack which vents to the atmosphere. Note: The feed bin can receive pigment from either Line 1 or Line 2 Product Dryer.
AK-104	The No. 4 Pigment Grinding Feed Bin (formerly identified as emission point AA-108D). The feed bin has a dedicated baghouse for control of particulate matter emissions. The baghouse has a dedicated stack which vents to the atmosphere. Note: The feed bin can receive pigment from either Line 1 or Line 2 Product Dryer.
AK-105	The No. 5 Pigment Grinding Feed Bin (formerly identified as emission point AA-208D). The feed bin has a dedicated baghouse for control of particulate matter emissions. The baghouse has a dedicated stack which vents to the atmosphere. Note: The feed bin can receive pigment from either Line 1 or Line 2 Product Dryer.
AK-106	The No. 6 Pigment Grinding Feed Bin (formerly identified as emission point AA-208D). The feed bin has a dedicated baghouse for control of particulate matter emissions. The baghouse has a dedicated stack which vents to the atmosphere. Note: The feed bin can receive pigment from either Line 1 or Line 2 Product Dryer.
AK-107	The No. 7 Pigment Grinding Feed Bin (formerly identified as emission point AB-001). The feed bin has a dedicated baghouse for control of particulate matter emissions. The baghouse has a dedicated stack which vents to the atmosphere. Note: The feed bin can receive pigment from either Line 1 or Line 2 Product Dryer.

<b>Emission Point</b>	<b>Description</b>
AK-110	The Return Bin with a dedicated baghouse for control of particulate matter emissions (formerly identified as emission point AA-008H). Note: This bin can accept pigment from either the Line 1 or Line 2 Product Dryer.
AL-101	The No. 1 Pigment Packing Feed Bin Vent (formerly identified as emission point AA-108E). The Feed Bin is equipped with a baghouse for control of particulate matter emissions. Note: The Feed Bin can receive pigment from any of the seven pigment grinders and from the Dry Blend System Feed Bin.
AL-102	The No. 2 Pigment Packing Feed Bin Vent (formerly identified as emission point AA-108E). The Feed Bin is equipped with a baghouse for control of particulate matter emissions. Note: The Feed Bin can receive pigment from any of the seven pigment grinders and from the Dry Blend System Feed Bin.
AL-103	The No. 3 Pigment Packing Feed Bin Vent (formerly identified as emission point AA-108E). The Feed Bin is equipped with a baghouse for control of particulate matter emissions. Note: The Feed Bin can receive pigment from any of the seven pigment grinders and from the Dry Blend System Feed Bin.
AL-104	The No. 4 Pigment Packing Feed Bin Vent (formerly identified as emission point AA-108E). The Feed Bin is equipped with a baghouse for control of particulate matter emissions. Note: The Feed Bin can receive pigment from any of the seven pigment grinders and from the Dry Blend System Feed Bin.
AL-105	The No. 5 Pigment Packing Feed Bin Vent (formerly identified as emission point AA-208E). The Feed Bin is equipped with a baghouse for control of particulate matter emissions. Note: The Feed Bin can receive pigment from any of the seven pigment grinders and from the Dry Blend System Feed Bin.
AL-106	The No. 6 Pigment Packing Feed Bin Vent (formerly identified as emission point AA-208E). The Feed Bin is equipped with a baghouse for control of particulate matter emissions. Note: The Feed Bin can receive pigment from any of the seven pigment grinders and from the Dry Blend System Feed Bin.
AL-107	The No. 7 Pigment Packing Feed Bin Vent (formerly identified as emission point AB-002). The Feed Bin is equipped with a baghouse for control of particulate matter emissions. Note: The Feed Bin can receive pigment from any of the seven pigment grinders and from the Dry Blend System Feed Bin.
AL-109	The Bulk Loading Facility equipped with a baghouse for control of particulate matter emissions (formerly identified as emission point AB-003). The Bulk Loading Facility received pigment from grinder baghouses 1, 2, and 3.

Emission Point	Description
AL-110	Dryer Discharge Bin Vent with a baghouse for control of particulate matter emissions (formerly identified as emission point AA-208H). This Feed Bin can receive pigment from either Line 1 or Line 2 Product Dryer.
AL-111	The Packaging Building (formerly identified as emission point AA-008I). This building includes the Packer No. 4 SBC, Packer No. 3 SBC, Packer No. 2 SBC, the Dry Blend System, and the No. 7 Packer SBC. Each piece of equipment is equipped with a dedicated baghouse which vents within the confines of the building.
AL-112	Pigment Warehouse Building/Printer Surge Station
<b>Support Activities (Sandblasting and Painting)</b>	
AM-101	No. 1 Contractor Air Compressor with a CI RICE (200 hp) Mfd. 2005
AM-102	No. 2 Contractor Air Compressor with a CI RICE (226 hp) Mfd. 1994
AM-103	No. 3 Contractor Air Compressor with a CI RICE (113 hp) Mfd. Prior to 1996
AM-104	Sandblasting Shed Storage Silo
AM-105	Sandblasting Shed
AM-106	Painting Shed
AM-107	South Plant Sandblast Material Storage Silo
AM-111	In-Field Sandblasting Activity
AM-112	In-Field Painting Activity
AM-113	Hurricane Dome Emergency Generator with a CI RICE (95 hp) Mfd. 1979

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
<b>Plantwide</b>				
AA-000	APC-S-2, Section II.B.16(b); APC-S-2, Section V; APC-S-6, Section III.A.6.c (See Condition 1.3); the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004; and the “Sustainable Growth” Federally Enforceable Permit to Construct issued on June 8, 2004.	3.B.24	Permit Reopening	None

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
<b>Plantwide Fugitive Emissions</b>				
AA-001	The "Retrospective" Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21 3.B.14	PM/PM <sub>10</sub>	2.43 lbs./hr and 10.64 TPY
			Cl <sub>2</sub>	0.68 lbs./hr and 3.00 TPY
			HCl	1.14 lbs./hr and 5.00 TPY
<b>Line 1 and Line 2 Coke Unloading and Storage Process</b>				
AA-101 to AA-105 & AA-107	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
<b>The Ore Unloading Process</b>				
AA-201	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AA-202	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AA-203	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AA-204	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AA-205	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
<b>Chlorine Unloading and Storage</b>				
AA-301	None other than Opacity addressed in Condition 3.A.1			
<b>Line 1 and Line 2 TiCl<sub>4</sub> Intermediate Process</b>				
AB-101	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AB-102	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
	Title V Operating Permit issued May 9, 2006 and modified August 11, 2009.	3.B.15	Fuel Restriction	Natural Gas only
	State Operating Permit issued on October 28, 1980	3.B.16	SO <sub>2</sub>	500 PPM
	The "TRI Project" Federally Enforceable Permit to Construct issued November 8, 2005.	3.B.8	PM/PM <sub>10</sub>	5.79 lbs. /hr and 25.36 TPY
AB-103	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AB-104	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>



Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AB-106	APC-S-1, Section 3.4(a)(1)	3.B.33	PM	0.6 lbs./MMBTU
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	Title V Operating Permit issued May 9, 2006 and modified August 11, 2009.	3.B.9	Operating Limitation	Not to exceed 500 hr/yr
	NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 40 CFR 63.6590(a)(2)(i) and (b)(1)(i) and 63.6640(f)	3.B.25 and 3.B.26	HAP	MACT applicability
		3.B.40	Operating Limitations	Cannot exceed 100 hours per year of non-emergency operation, including testing and maintenance and up to 50 hours per year of other non-emergency operation.
	New Source Performance Standards (NSPS), Subpart IIII, Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60.4200(a)(2), 60.4205(a), 60.4207(a) & (b), 60.4211(e) & Table 1.)	3.B.37	Operation Limitation	The generator cannot exceed 100 hours per year of maintenance checks and readiness testing.
		3.B.38	Fuel Limitation	500ppm Sulfur, 40 Cetane Index min or 35% Aromatics max after October 1, 2007
				15 ppm Sulfur, 40 Cetane Index min or 35% Aromatics max after October 1, 2010.
		3.B.36	PM	0.40 gm/hp-hr
			VOC	1.0 gm/hp-hr
	NO <sub>x</sub>		6.9 gm/hp-hr	
	CO		8.5gm/hp-hr	
AB-108	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
AB-109	APC-S-1, Section 3.6(a) and the State Operating Permit issued on October 28, 1980	3.B.1	PM	$E=4.1(p)^{0.67}$ not to exceed 2.3 lbs./hr
		3.B.16		
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	Title V Operating Permit issued May 9, 2006 and modified August 11, 2009.	3.B.35	Raw Material Limitation	The petroleum coke used shall not exceed a sulfur content of 3.36 % by weight during periods of Chlorinator Reactor Lightoff operating mode.
CO			12,000 lbs./hr (8-hour average) and 22,000 lbs./hr (1-hour average), not to exceed 6,415 TPY. (These limitations are the total allowable emission limits for AB-109, AC-101, AC-106, AC-201, and AC-206.)	

<b>Emission Point(s)</b>	<b>Applicable Requirement</b>	<b>Condition Number(s)</b>	<b>Pollutant/Parameter</b>	<b>Limit/Standard</b>
			COS	16,440 lbs./day (maximum daily) and 530 TPY (The lbs./day and TPY limit is the allowable emission limit for AB-109, AC-101, AC-106, AC-201, and AC-206.)
			Operational Allowance	CO and COS emissions can be vented through AB-109, AC-101 and/or AC-201.
AB-201	The "Retrospective" Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM/PM <sub>10</sub>	0.011 lbs./hr and 0.05 TPY
			Operational Limitation	The emission unit shall not be operated without the control device operational.
			Opacity	20%
AB-202	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	NSPS Subpart UUU, 40 CFR 60.732(a) & (b)	3.B.32	Opacity	10%
			PM	0.025 grains/dscf
	The "Retrospective" Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM/PM <sub>10</sub>	2.00 lbs./hr and 8.80 TPY
			SO <sub>2</sub>	0.013 lbs./hr and 0.058 TPY
			CO	13.20 lbs./hr and 57.82 TPY
			NO <sub>x</sub>	4.40 lbs./hr and 19.27 TPY
			VOC	0.25 lbs./hr and 1.09 TPY
			Fuel Restriction	Natural Gas only
Operational Limitation	The emission unit shall not be operated without the control device operational.			
AB-201, AB-203, & AB-204	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
AB-203	The "Retrospective" Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM/PM <sub>10</sub>	0.34 lbs./hr and 1.50 TPY
			Operational Limitation	The emission unit shall not be operated without the control device operational.
			Opacity	20%
AB-204	The "Retrospective" Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM/PM <sub>10</sub>	0.28 lbs./hr and 1.20 TPY
			Operational Limitation	The emission unit shall not be operated without the control device operational.

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AB-206	APC-S-1, Section 3.4(a)(1)	3.B.33	PM	0.6 lbs./MMBTU
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	Title V Operating Permit issued May 9, 2006 and modified August 11, 2009.	3.B.9	Operating Limitation	Not to exceed 500 hr/yr
	NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 40 CFR 63.6590(a)(2)(i) and (b)(1)(i) and 63.6640(f)	3.B.25 and 3.B.26	HAP	MACT applicability only
		3.B.40	Operating Limitations	Cannot exceed 100 hours per year of non-emergency operation, including testing and maintenance and up to 50 hours per year of other non-emergency operation.
	New Source Performance Standards (NSPS), Subpart IIII, Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60.4200(a)(2), 60.4205(a), 60.4207(a) & (b), 60.4211(e), & Table 1.)	3.B.37	Operation Limitation	The generator cannot exceed 100 hours per year of non-emergency operation.
		3.B.38	Fuel Limitation	500ppm Sulfur, 40 Cetane Index min or 35% Aromatics max after October 1, 2007
				15 ppm Sulfur, 40 Cetane Index min or 35% Aromatics max after October 1, 2010.
		3.B.36	PM	0.40 gm/hp-hr
			VOC	1.0 gm/hp-hr
	NO <sub>x</sub>		6.9 gm/hp-hr	
CO	8.5gm/hp-hr			
AB-208	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
<b>Line 1 and Line 2 HCl Recovery</b>				
AC-101	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
	APC-S-1, Section 4.2(a)	3.B.18	SO <sub>2</sub>	500 PPM
	The "TRI Project" Federally Enforceable Permit to Construct issued on November 8, 2005.  And	3.B.8	PM	1.7 lbs./hr and 7.45 TPY
			PM <sub>10</sub>	7.7 lbs./hr and 33.73 TPY
			SO <sub>2</sub>	125.2 lbs./hr and 25.00 TPY
	New Source Performance Standards (NSPS), Subpart A, General Provisions and Subpart D <sub>e</sub> ,	3.B.22	NO <sub>x</sub>	0.048 lbs./ MMBTU heat input from the auxiliary burner, not to exceed 2.40 lbs./hr and 10.51 TPY

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
	Standards for Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60.7 & 60.40c)		CO	12,000 lbs./hr (8-hour average) and 22,000 lbs./hr (1-hour average), not to exceed 6,415 TPY. (These limitations are the total allowable emission limits for AB-109, AC-101, AC-106, AC-201, and AC-206.)
			COS	16,440 lbs./day (maximum daily) and 530 TPY (The lbs./day and TPY limit is the allowable emission limit for AB-109, AC-101, AC-106, AC-201, and AC-206.)
			H <sub>2</sub> SO <sub>4</sub>	6.00 lbs./hr and 26.28 TPY
			Cl <sub>2</sub>	5.00 lbs./hr and 21.90 TPY
			HCl	3.91 lbs./hr and 17.13 TPY
			Operational Allowance	CO and COS emissions can be vented through AB-109, AC-101 and/or AC-201.
			Fuel Restriction	The thermal oxidizer can be fueled by natural gas, only.
			Operation Limitation	During normal operating conditions, all process gases shall be vented through the thermal oxidizer.
AC-106	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AC-106	APC-S-1, Section 4.2(a)	3.B.18	SO <sub>2</sub>	500 PPM
	<b>Allowable Emission Limitations for both AC-106 and AC-101. The allowable emission limitations only apply to AC-106 when AC-101 is not operative and/or the Line 1 Process is down. The emissions from AC-106 will be limited to products of natural gas combustion. The permittee is maintaining a heat source during process downtime periods to allow for the temperature of the refractory in the Thermal Oxidizer to remain constant thereby keeping the Thermal Oxidizer readily available during process shutdowns and startups. During these periods Emission Point AC-106 actual emissions will be significantly below these allowable emission limits.</b>			
	The "TRI Project" Federally Enforceable Permit to Construct issued on November 8, 2005.  And  New Source Performance Standards (NSPS), Subpart A, General Provisions and Subpart D <sub>c</sub> .	3.B.8	PM	1.7 lbs./hr and 7.45 TPY
			PM <sub>10</sub>	7.7 lbs./hr and 33.73 TPY
			SO <sub>2</sub>	125.2 lbs./hr and 25.00 TPY
		3.B.22	NO <sub>x</sub>	0.048 lbs./MMBTU heat input from the auxiliary burner, not to exceed 2.40 lbs./hr and 10.51 TPY

<b>Emission Point(s)</b>	<b>Applicable Requirement</b>	<b>Condition Number(s)</b>	<b>Pollutant/Parameter</b>	<b>Limit/Standard</b>
	Standards for Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60.7 & 60.40c)		CO	12,000 lbs./hr (8-hour average) and 22,000 lbs./hr (1-hour average), not to exceed 6,415 TPY. (These limitations are the total allowable emission limits for AB-109, AC-101, AC-106, AC-201, and AC-206.)
			Fuel Restriction	The thermal oxidizer can be fueled by natural gas, only.
AC-102	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
	State Operating Permit issued on August 25, 1987	3.B.2	HCl	5.5 lbs./hr
	The "TRI Project" Federally Enforceable Permit to Construct issued on November 8, 2005.	3.B.8	PM/PM <sub>10</sub>	2.00 lbs./hr and 8.76 TPY
AC-201	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
	APC-S-1, Section 4.2(a)	3.B.18	SO <sub>2</sub>	500 PPM
	The "TRI Project" Federally Enforceable Permit to Construct issued on November 8, 2005. (upon certification of construction these limitations will supersede those outlined by the Sustainable Growth Federally Enforceable Permit to Construct.)  And  New Source Performance Standards (NSPS), Subpart A, General Provisions and Subpart D <sub>c</sub> , Standards for Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60.7 & 60.40c)	3.B.8	PM	1.7 lbs./hr and 7.45 TPY
			PM <sub>10</sub>	7.7 lbs./hr and 33.73 TPY
		3.B.22	SO <sub>2</sub>	125.2 lbs./hr and 25.00 TPY
			NO <sub>x</sub>	0.048 lbs./ MMBTU heat input from the auxiliary burner, not to exceed 2.40 lbs./hr and 10.51 TPY
			CO	12,000 lbs./hr (8-hour average) and 22,000 lbs./hr (1-hour average), not to exceed 6,415 TPY. (These limitations are the total allowable emission limits for AB-109, AC-101, AC-106, AC-201, and AC-206.)
			COS	16,440 lbs./day (maximum daily) and 530 TPY (The lbs./day and TPY limit is the allowable emission limit for AB-109, AC-101, AC-106, AC-201, and AC-206.)
			H <sub>2</sub> SO <sub>4</sub>	6.00 lbs./hr and 26.28 TPY
	Cl <sub>2</sub>	5.0 lbs./hr and 21.90 TPY		
HCl	3.91 lbs./hr and 17.13 TPY			
Operational Allowance	CO and COS emissions can be vented through AB-109, AC-101 and/or AC-201.			

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
			Fuel Restriction	The thermal oxidizer can be fueled by natural gas, only.
			Operation Limitation	During normal operating conditions, all process gases shall be vented through the thermal oxidizer.
AC-206	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
	APC-S-1, Section 4.2(a)	3.B.18	SO <sub>2</sub>	500 PPM
<p><b>Allowable Emission Limitations for both AC-206 and AC-201. The allowable emission limitations only apply to AC-206 when AC-201 is not operative and/or the Line 1 Process is down. The emissions from AC-206 will be limited to products of natural gas combustion. The permittee is maintaining a heat source during process downtime periods to allow for the temperature of the refractory in the Thermal Oxidizer to remain constant thereby keeping the Thermal Oxidizer readily available during process shutdowns and startups. During these periods Emission Point AC-206 actual emissions will be significantly below these allowable emission limits.</b></p>				
	<p>The “TRI Project” Federally Enforceable Permit to Construct issued on November 8, 2005.</p> <p>And</p> <p>New Source Performance Standards (NSPS), Subpart A, General Provisions and Subpart D<sub>e</sub>, Standards for Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60.7 &amp; 60.40c)</p>	3.B.8	PM	1.7 lbs./hr and 7.45 TPY
			PM <sub>10</sub>	7.7 lbs./hr and 33.73 TPY
			SO <sub>2</sub>	125.2 lbs./hr and 25.00 TPY
		3.B.22	NO <sub>x</sub>	0.048 lbs./MMBTU heat input from the auxiliary burner, not to exceed 2.40 lbs./hr and 10.51 TPY
			CO	12,000 lbs./hr (8-hour average) and 22,000 lbs./hr (1-hour average), not to exceed 6,415 TPY. (These limitations are the total allowable emission limits for AB-109, AC-101, AC-106, AC-201, and AC-206.)
			Fuel Restriction	The thermal oxidizer can be fueled by natural gas, only.
AC-202	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
	<p>The “Retrospective” Federally Enforceable Permit to Construct issued June 8, 2004</p>	3.B.21	PM/PM <sub>10</sub>	32.00 lbs./hr (maximum hourly) and 3.13 TPY
HCl			17.32 lbs./hr and 1.69 TPY	
Cl <sub>2</sub>			0.50 lbs./hr and 0.31 TPY	
Annual Hourly Restriction			1250 hours per year for any consecutive 12-month period	
Operational Limitation			The emission unit shall not be operated without the control device operational.	

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
<b>Iron Chloride Storage and Disposal</b>				
AD-101 and AD-102	No specific emission limits for these two emission points other than the 40% opacity limitation.			
AD-103	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
AD-104	APC-S-1, Section 3.4(a)(1)	3.B.33	PM	0.6 lbs./MMBTU
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	New Source Performance Standards (NSPS), Subpart III, Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60.4200(a)(2), 60.4207(a) & (b), 60.4204(a), & Table 1)	3.B.38	Fuel Limitation	500ppm Sulfur, 40 Cetane Index min or 35% Aromatics max after October 1, 2007
				15 ppm Sulfur, 40 Cetane Index min or 35% Aromatics max after October 1, 2010.
		3.B.36	NO <sub>x</sub>	6.9 gm/hp-hr
		Operation and Maintenance	Monitoring, Reporting and Recordkeeping	
NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 40 CFR 63.6590(c)	3.B.25 and 3.B.27	HAP	MACT applicability only, not affected by the requirements of this standard	
AD-105, AD-106, AD-107, and AD-132	APC-S-1, Section 3.4(a)(1)	3.B.33	PM	0.6 lbs./MMBTU
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 63.6665 Beginning May 3, 2013	3.B.25	HAP	MACT Applicability
	40 CFR 63.6602 and Table 2c Beginning May 3, 2013	3.B.29	Operation & Maintenance	Operating/Maintenance Requirements
	40 CFR 63.6625(h) and Table 2c Beginning May 3, 2013	3.B.31	Operating Requirement	Minimize engine idling and startup time
	40 CFR 63.6625(i) and Table 2c Beginning May 3, 2013	3.B.39	Maintenance	Option to utilize oil analysis program
AD-151	APC-S-1, Section 3.4(a)(1)	3.B.33	PM	0.6 lbs./MMBTU
	NSPS Subpart III, 40 CFR 60.4200(a)(2), 60.4204(b) and 60.4206	3.B.36	NO <sub>x</sub> , Hydrocarbons, CO, PM, and Opacity	40 CFR 89.112 and 113
	NSPS Subpart III, 40 CFR 60.4207(a) and (b)	3.B.38	Fuel Limitation	500 ppm Sulfur, 40 Cetane Index min or 35% Aromatics max after October 1, 2007

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
				15 ppm Sulfur, 40 Cetane Index min or 35% Aromatics max after October 1, 2010.
	NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 40 CFR 63.6590(c)	3.B.25 and 3.B.27	HAP	MACT applicability only, not affected by the requirements of this standard
AD-139, AD-150, AD-152, and AD-153	APC-S-1, Section 3.4(a)(1)	3.B.33	PM	0.6 lbs./MMBTU
	NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 63.6665 Beginning May 3, 2013	3.B.25	HAP	MACT Applicability
	40 CFR 63.6602 and Table 2c Beginning May 3, 2013	3.B.30	CO	230 ppmvd @ 15% O <sub>2</sub>
	40 CFR 63.6625(h) and Table 2c Beginning May 3, 2013	3.B.31	Operating Requirement	Minimize engine idling and startup time
<b>Steam Generation</b>				
AF-101A and AF-101B	APC-S-1, Section 3.4.a.2 and the State Operating Permit issued on October 28, 1980	3.B.3 3.B.16	PM	$E = 0.8808 * I^{-0.1667}$ , not to exceed 0.36 lbs./MMBTU
	APC-S-1, Section 4.1.a and the State Operating Permit issued on October 28, 1980	3.B.4 3.B.16	SO <sub>2</sub>	4.8 lbs./MMBTU
AF-102	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
AF-103	New Source Performance Standards (NSPS), Subpart D <sub>b</sub> , Standards for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60.44b(a))	3.B.13	NO <sub>x</sub>	0.20 lbs./MMBTU heat input (30 day rolling average)
	The "Sustainable Growth" Federally Enforceable Permit to Construct issued on June 8, 2004	3.B.5	PM/PM <sub>10</sub>	1.76 lbs./hr and 7.69 TPY
			SO <sub>2</sub>	0.55 lbs./hr and 2.43 TPY
			NO <sub>x</sub>	0.09 lbs./MMBTU heat input, not to exceed 20.79 lbs./hr and 91.06 TPY
			CO	15.02 lbs./hr and 65.77 TPY
			VOC	1.80 lbs./hr and 7.90 TPY
			Opacity	20%
			Fuel Restriction	Natural Gas (NG), Landfill Gas (LFG), or a mixture of NG and LFG
	APC-S-1, Section 3.4.a.2	3.B.3	PM	$E = 0.8808 * I^{-0.1667}$
APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU	



Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AF-143	APC-S-1, Section 3.4(a)(1)	3.B.33	PM	0.6 lbs./MMBTU
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	Title V Operating Permit issued May 9, 2006 and modified August 11, 2009.	3.B.9	Operating Limitation	Not to exceed 500 hr/yr.
	NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 40 CFR 63.6590(a)(2)(i) and (b)(1)(i) and 63.6640(f)	3.B.25 and 3.B.26	HAP	MACT applicability only, not affected by the requirements of this standard
		3.B.40	Operating Limitations	Cannot exceed 100 hours per year of non-emergency operation, including testing and maintenance and up to 50 hours per year of other non-emergency operation.
	New Source Performance Standards (NSPS), Subpart IIII, Standards for Stationary Compression Ignition Internal Combustion Engines  (40 CFR 60.4200(a)(2), 60.4205(a), 60.4207(a) & (b), 60.4211(e), 60.4214(b), and Table 1.)	3.B.36, 3.B.37, and 3.B.38	Operation Limitation	The generator cannot exceed 100 hours per year of non-emergency operation.
			Fuel Limitation	500ppm Sulfur, 40 Cetane Index min or 35% Aromatics max after October 1, 2007
			Fuel Limitation	15 ppm Sulfur, 40 Cetane Index min or 35% Aromatics max after October 1, 2010.
			PM	0.40 gm/hp-hr
			VOC	1.0 gm/hp-hr
NO <sub>x</sub>			6.9 gm/hp-hr	
CO			8.5gm/hp-hr	
AF-146	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AF-151	APC-S-1, Section 3.4(a)(1)	3.B.33	PM	0.6 lbs./MMBTU
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 63.6665 Beginning May 3, 2013	3.B.25	HAP	MACT Applicability
	40 CFR 63.6602 and Table 2c Beginning May 3, 2013	3.B.28	Operation & Maintenance	Operating/Maintenance Requirements
	40 CFR 63.6625(h) and Table 2c Beginning May 3, 2013	3.B.31	Operating Requirement	Minimize engine idling and startup time
	40 CFR 63.6625(i) and Table 2c Beginning May 3, 2013	3.B.39	Maintenance	Option to utilize oil analysis program

<b>Emission Point(s)</b>	<b>Applicable Requirement</b>	<b>Condition Number(s)</b>	<b>Pollutant/Parameter</b>	<b>Limit/Standard</b>	
	40 CFR 63.6640(f) Beginning May 3, 2013	3.B.40	Operating Limitations	Cannot exceed 100 hours per year of non-emergency operation, including testing and maintenance and up to 50 hours per year of other non-emergency operation.	
AF-202	APC-S-1, Section 3.4.a.2	3.B.3	PM	$E = 0.8808 * I^{-0.1667}$	
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU	
	New Source Performance Standards (NSPS), Subpart D <sub>b</sub> , Standards for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60.44b(a))	3.B.13	NO <sub>x</sub>	0.20 lbs./MMBTU heat input (30 day rolling average)	
	The "Sustainable Growth" Federally Enforceable Permit to Construct issued on June 8, 2004 (upon certification of construction)		3.B.5	PM/PM <sub>10</sub>	1.76 lbs./hr and 1.83 TPY
				SO <sub>2</sub>	0.14 lbs./hr and 0.14 TPY
				NO <sub>x</sub>	0.09 lbs./MMBTU heat input, not to exceed 20.79 lbs./hr and 21.67 TPY
				CO	15.02 lbs./hr and 15.65 TPY
				VOC	1.80 lbs./hr and 1.88 TPY
				Opacity	20%
				Fuel Restriction	Natural Gas only
				Annual Hourly Restriction	Not to exceed 2,085 hours per year for any consecutive 12-month period
				Operational Limitation	This boiler cannot be operated unless 1 of the 3 permanent boilers is inoperative.
	Heat Input Capacity Restriction	$\geq 101$ MMBTU/hr and $\leq 231$ MMBTU/hr			
		3.B.7	Operational Limitation	Only one rental boiler may be on site at any given time. For further restrictions see Condition 3.B.7	
		3.B.6	Notification Requirement	See Condition 3.B.6	
		3.B.23	Modeling Requirement	See Condition 3.B.23	

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
<b>Line 1 and Line 2 TiCl<sub>4</sub> Purification Process</b>				
AG-101	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
	The "TRI Project" Federally Enforceable Permit to Construct issued on November 8, 2005.	3.B.8	<b>The below emission limitations are representative of the total combined emissions from Line 1 and Line 2 purification scrubbers, the iron chloride scrubber, and the spray condenser discharge tank.</b>	
			PM/PM <sub>10</sub>	3.0 lbs./hr and 13.14 TPY
			HCl	1.62 lbs./hr and 7.09 TPY
			Cl <sub>2</sub>	0.50 lbs./hr and 2.19 TPY
<b>Line 1 and Line 2 TiCl<sub>4</sub> Oxidation</b>				
AH-101	APC-S-1, Section 3.4.a.2	3.B.3	PM	E = 0.8808 * T <sup>-0.1667</sup>
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	The "Sustainable Growth" Federally Enforceable Permit to Construct issued on June 8, 2004.	3.B.5	PM/PM <sub>10</sub>	0.30 lbs./hr and 1.33 TPY
			SO <sub>2</sub>	0.02 lbs./hr and 0.11 TPY
			NO <sub>x</sub>	0.043 lbs./MMBTU heat input, not to exceed 1.72 lbs./hr and 7.53 TPY
			CO	2.40 lbs./hr and 10.51 TPY
			VOC	0.45 lbs./hr and 1.98 TPY
			Fuel Restriction	Natural Gas only
AH-102	APC-S-1, Section 3.4.a.2	3.B.3	PM	E = 0.8808 * T <sup>-0.1667</sup>
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	Federally Enforceable Permit to Construct issued January 6, 1999	3.B.12	Fuel Restriction	Natural Gas only
AH-103	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AH-104	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AH-106	The "Sustainable Growth" Federally Enforceable Permit to Construct issued on June 8, 2004.	3.B.5	VOC	10.23 lbs./hr (maximum hourly) and 2.07 TPY
AH-107	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
	The "Sustainable Growth" Federally Enforceable Permit to Construct issued on June 8, 2004.	3.B.5	PM/PM <sub>10</sub>	1.28 lbs./hr and 5.61 TPY
			HCl	0.69 lbs./hr and 3.04 TPY
			Cl <sub>2</sub>	7.75 lbs./hr and 15.33 TPY

<b>Emission Point(s)</b>	<b>Applicable Requirement</b>	<b>Condition Number(s)</b>	<b>Pollutant/Parameter</b>	<b>Limit/Standard</b>
AH-201	APC-S-1, Section 3.4.a.2	3.B.3	PM	$E = 0.8808 * I^{-0.1667}$
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	The “Sustainable Growth” Federally Enforceable Permit to Construct issued on June 8, 2004.	3.B.5	PM/PM <sub>10</sub>	0.30 lbs./hr and 1.33 TPY
			CO	2.40 lbs./hr and 10.51 TPY
			SO <sub>2</sub>	0.02 lbs./hr and 0.11 TPY
			NO <sub>x</sub>	0.043 lbs./MMBTU heat input, not to exceed 1.72 lbs./hr and 7.53 TPY
			VOC	0.45 lbs./hr and 1.98 TPY
	Fuel Restriction	Natural Gas only		
AH-202				
	APC-S-1, Section 3.4.a.2	3.B.3	PM	$E = 0.8808 * I^{-0.1667}$
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
	The “Retrospective” Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM/PM <sub>10</sub>	0.11 lbs./hr and 0.48 TPY
			SO <sub>2</sub>	0.009 lbs./hr and 0.04 TPY
			CO	1.26 lbs./hr and 5.52 TPY
			NO <sub>x</sub>	2.40 lbs./hr and 10.51 TPY
			VOC	0.17 lbs./hr and 0.74 TPY
Fuel Restriction	Natural Gas only			
AH-203	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
	The “Retrospective” Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM/PM <sub>10</sub>	0.88 lbs./hr and 0.23 TPY
			Annual Hourly Restriction	520 hours per year for any consecutive 12-month period
			Opacity	20%
AH-204	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
	The “Retrospective” Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM/PM <sub>10</sub>	0.21 lbs./hr and 0.92 TPY
			Operational Limitation	The emission unit shall not be operated without the control device operational.
			Opacity	20%
AH-206	40 CFR Part 63.2334(a), Subpart EEEE	3.B.34	HAPs	Applicability
AH-207	40 CFR Part 63.2334(a), Subpart EEEE	3.B.34	HAPs	Applicability

<b>Emission Point(s)</b>	<b>Applicable Requirement</b>	<b>Condition Number(s)</b>	<b>Pollutant/Parameter</b>	<b>Limit/Standard</b>
<b>Pigment Treatment Process</b>				
AI-176	Opacity limitation only, see Condition 3.A.1			
AI-177	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
<b>Pigment Drying Process</b>				
AJ-101	APC-S-1, Section 3.4.a.2 and the State Operating Permit issued on October 28, 1980	3.B.1 3.B.16	PM	E=4.1(p) <sup>0.67</sup> , not to exceed 28 lbs./hr
	APC-S-1, Section 4.2(a) and the State Operating Permit issued on October 28, 1980	3.B.18 3.B.16	SO <sub>2</sub>	500 PPM
	Title V Operating Permit issued May 9, 2006 and modified August 11, 2009.	3.B.15	Fuel Restriction	Natural Gas only
	The "TRI Project" Federally Enforceable Permit to Construct issued on November 8, 2005.	3.B.8	VOC	524.60 lbs./hr (8-hour average) and 648.16 TPY (Total allowable for both AJ-101 and AJ-201)
			HAP Limitation	No HAP additive can be used without prior MDEQ approval.
			Fuel Restriction	Natural Gas only
AJ-201	NSPS Subpart UUU, 40 CFR 60.732(a) & (b)	3.B.32	Opacity	10%
			PM	0.025 grains/dscf
	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
	APC-S-1, Section 4.1.a	3.B.4	SO <sub>2</sub>	4.8 lbs./MMBTU
AJ-201	The "TRI Project" Federally Enforceable Permit to Construct issued on November 8, 2005	3.B.8	PM/PM <sub>10</sub>	1.50 lbs./hr and 6.57 TPY
			SO <sub>2</sub>	0.5 lbs./hr and 2.19 TPY
			CO	9.0 lbs./hr and 39.42 TPY
			NO <sub>x</sub>	14.40 lbs./hr and 63.07 TPY
			Fuel Restriction	Natural Gas (only)
			VOC	524.60 lb/hr (8-hour average) and 648.16 TPY (Total allowable for both AJ-101 and AJ-201)
			HAP Limitation	No HAP additive can be used without prior MDEQ approval.
			Operational Limitation	The emission unit shall not be operated without the control device operational.

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
<b>Pigment Grinding and Packaging Process</b>				
AK-101 through AK-104	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AK-105 through AK-106	APC-S-1, Section 3.6(a) The “Retrospective” Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM	E=4.1(p) <sup>0.67</sup>
			PM/PM <sub>10</sub>	0.21 lbs./hr and 0.92 TPY (allowable limit for each emission point)
			Operation Limitation	These emission points cannot be operated without the control device operational.
			Opacity	20%
AK-107	APC-S-1, Section 3.6(a) and the Federally Enforceable Permit to Construct issued on June 13, 1995	3.B.1 3.B.11	PM/PM <sub>10</sub>	E=4.1(p) <sup>0.67</sup> , not to exceed 0.40 lbs./hr and 1.75 TPY
AK-110	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AL-101 through AL-104	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AL-105 and AL-106	APC-S-1, Section 3.6(a)	3.B.1	PM	E=4.1(p) <sup>0.67</sup>
AL-105	The “Retrospective” Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM/PM <sub>10</sub>	0.11 lbs./hr and 0.48 TPY
			VOC	65.0 lbs./hr and 39.0 TPY
			Operational Limitation	The emission unit shall not be operated without the control device operational.
			HAP	No additive containing HAP’s may be used.
			Opacity	20%
AL-106	The “Retrospective” Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM/PM <sub>10</sub>	0.11 lbs./hr and 0.48 TPY
			Operational Limitation	The emission unit shall not be operated without the control device operational.
			Opacity	20%
AL-107	APC-S-1, Section 3.6(a) and the Federally Enforceable Permit to Construct issued on June 13, 1995.	3.B.1 3.B.11	PM/PM <sub>10</sub>	E=4.1(p) <sup>0.67</sup> , not to exceed 0.13 lbs./hr and 0.57 TPY
AL-109	APC-S-1, Section 3.6(a) and the Federally Enforceable Permit to Construct issued on November 2, 2001.	3.B.1 3.B.19	PM/PM <sub>10</sub>	E=4.1(p) <sup>0.67</sup> , not to exceed 0.04 grains/dscf and 3.09 lbs./hr and 13.53 TPY
			Operational	The emission unit shall not be

<b>Emission Point(s)</b>	<b>Applicable Requirement</b>	<b>Condition Number(s)</b>	<b>Pollutant/Parameter</b>	<b>Limit/Standard</b>
			Limitation	operated without the control device operational.
AL-110	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
	The "Retrospective" Federally Enforceable Permit to Construct is sued June 8, 2004.	3.B.21	PM/PM <sub>10</sub>	0.17 lbs./hr and 0.73 TPY
			Operational Limitation	The emission unit shall not be operated without the control device operational.
			Opacity	20%
AL-111	APC-S-1, Section 3.6(a)	3.B.1	PM	$E=4.1(p)^{0.67}$
AL-112	Federally Enforceable Permit to Construct issued on March 1, 2002.	3.B.20	VOC	1.68 lbs./hr and 0.070 TPY
<b>Support Activities (Sandblasting and Painting)</b>				
AM-101, AM-102, and AM-103	APC-S-1, Section 3.4(a)(1)	3.B.33	PM	0.6 lbs./MMBTU
	NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 63.6665	3.B.25	HAP	MACT Applicability
	Beginning May 3, 2013			
	40 CFR 63.6602 and Table 2c	3.B.30	CO	230 ppmvd @ 15% O <sub>2</sub>
Beginning May 3, 2013				
40 CFR 63.6625(h) and Table 2c	3.B.31	Operating Requirement	Minimize engine idling and startup time	
Beginning May 3, 2013				
AM-104, AM-105, & AM-107	APC-S-1, Section 3.6(a)	3.B.17	PM	$E=4.1(p)^{0.67}$
AM-105	The "Retrospective" Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM	16.92 lbs./hr and 21.56 TPY
			PM <sub>10</sub>	4.04 lbs./hr and 5.15 TPY
			Operational Limitation	Sandblasting is prohibited for any time other than 9:00 am (CST) to 4:00 pm (CST)
AM-106 and AM-112	No specific emission limits for these two emission points other than the 40% opacity limitation.			
AM-111	APC-S-1, Section 3.6(a)	3.B.17	PM	$E=4.1(p)^{0.67}$
	The "Retrospective" Federally Enforceable Permit to Construct issued June 8, 2004	3.B.21	PM	16.92 lbs./hr and 27.71 TPY
			PM <sub>10</sub>	4.04 lbs./hr and 6.62 TPY
			Operational Limitation	Sandblasting is prohibited for any time other than 7:00 am (CST) to 4:00 pm (CST)

<b>Emission Point(s)</b>	<b>Applicable Requirement</b>	<b>Condition Number(s)</b>	<b>Pollutant/Parameter</b>	<b>Limit/Standard</b>
AM-113	APC-S-1, Section 3.4(a)(1)	3.B.33	PM	0.6 lbs./MMBTU
	NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 63.6665 Beginning May 3, 2013	3.B.25	HAP	MACT Applicability
	40 CFR 63.6602 and Table 2c Beginning May 3, 2013	3.B.28	Operation & Maintenance	Operating/Maintenance Requirements
	40 CFR 63.6625(h) and Table 2c Beginning May 3, 2013	3.B.31	Operating Requirement	Minimize engine idling and startup time
	40 CFR 63.6625(i) and Table 2c Beginning May 3, 2013	3.B.39	Maintenance	Option to utilize oil analysis program
	40 CFR 63.6640(f) Beginning May 3, 2013	3.B.40	Operating Limitations	Cannot exceed 100 hours per year of non-emergency operation, including testing and maintenance and up to 50 hours per year of other non-emergency operation.

3.B.1 Except as otherwise specified, Emission Points AA-101 through AA-105, AA-007, AA-201 through AA-205, AB-101 through AB-104, AB-108, AB-109, AB-201 through AB-204, AB-208, AC-101 (AC-106), AC-201 (AC-206), AC-102, AC-202, AD-103, AF-102, AF-146, AG-101, AH-103, AH-104, AH-107, AH-203, AH-204, AI-177, AJ-101, AJ-201, AK-101 through AK-107, AK-110, AL-101 through AL-107, AL-109, AL-110, and AL-111, shall not cause, permit, or allow the emission from the Titanium Dioxide Manufacturing Process, in any one hour from any point source, particulate matter in total quantities in excess of the amount determined by the relationship

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

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

Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs. (Ref.: APC-S-1, Section 3.6(a))

3.B.2 The permittee shall comply with the limits established in the State Operating Permit issued on August 25, 1987. These limits are specifically stated in Table 3.B for each emission point.

3.B.3 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations equal to or greater than 10 million BTU per hour heat input



but less than 10,000 million BTU per hour heat input shall not exceed an emission rate as determined by the relationship

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

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, Section 3.4.a(2))

- 3.B.4 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. (Ref.: APC-S-1, Section 4.1.a)
- 3.B.5 The permittee shall comply with the limits established in the “Sustainable Growth” Federally Enforceable Permit to Construct issued on June 8, 2004. These limits are specifically stated in Table 3.B for each emission point.
- 3.B.6 For Emission Point AF-202, the permittee shall provide written notification to DEQ 15 days in advance of bringing a temporary, or rental, boiler on site. The notification shall include but is not limited to the following information:
- (a) maximum rated heat input capacity of the boiler;
  - (b) the anticipated date of startup;
  - (c) the date of construction, reconstruction, or modification of the boiler;
  - (d) the most recent actual emissions data or test data for the boiler; and
  - (e) the boiler stack parameters.

Further, the permittee shall provide written notification to DEQ within 15 days after the boiler has been taken out of service and/or removed from the site. (Ref.: “Sustainable Growth” Federally Enforceable Permit to Construct issued on June 8, 2004)

- 3.B.7 For Emission Point AF-202, the permittee shall only have one rental boiler on site at any given time, with the hours of operation being the cumulative hours that the rental boiler is operated in a consecutive 12-month period. The permittee shall remove the rental boiler within 180 consecutive days of being brought on site. Should another replacement rental boiler be brought on site, the permittee shall include this boiler’s time on site in the calculations for the consecutive time period and the total hours of operation. (Ref.: “Sustainable Growth” Federally Enforceable Permit to Construct issued on June 8, 2004)

- 3.B.8 The permittee shall comply with the limits established in the “TRI Project” Federally Enforceable Permit to Construct issued on November 8, 2005. These limits are specifically stated in Table 3.B for each emission point.
- 3.B.9 For Emission Points AB-106, AB-206, and AF-143, the permittee shall not operate these units in excess of 500 hours per year (allowable for each unit). (Ref.: Title V Operating Permit issued May 9, 2006 and modified August 11, 2009)
- 3.B.10 The permittee shall comply with the limits established in the Federally Enforceable Permit to Construct issued on September 15, 1999. These limits are specifically stated in Table 3.B for each emission point.
- 3.B.11 The permittee shall comply with the limits established in the Federally Enforceable Permit to Construct issued on June 13, 1995. These limits are specifically stated in Table 3.B for each emission point.
- 3.B.12 The permittee shall comply with the limits established in the Federally Enforceable Permit to Construct issued on January 6, 1999. These limits are specifically stated in Table 3.B for each emission point.
- 3.B.13 For Emission Points AF-103, and AF-202, 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 0.20 lbs./MMBTU heat input. Compliance with this emission limit is determined on a 30-day rolling average. For Emission Point AF-202, this NO<sub>x</sub> limit has not been expressed in the tables of Section 3, since the “Sustainable Growth” Federally Enforceable Permit to Construct has established a more stringent limitation (0.058 lbs./MMBTU heat input and 0.09 lbs./MMBTU heat input, respectively). (Ref.: 40 CFR 60.44b(a) & (1)(1))
- 3.B.14 The permittee shall apply adequate dust suppressants to applicable raw material storage piles and handling/transfer points to minimize the discharge into the atmosphere of any visible emissions. (Ref.: “Retrospective” Federally Enforceable Permit to Construct issued June 8, 2004)
- 3.B.15 For Emissions Points AB-102, and AJ-101, the permittee is restricted to using only natural gas as a fuel. (Ref.: Title V Operating Permit issued May 9, 2006 and modified August 11, 2009)
- 3.B.16 The permittee shall comply with the limits established in the State Operating Permit issued on October 28, 1980. These limits are specifically stated in Table 3.B for each emission point.

- 3.B.17 For Emission Points AM-104, AM-105, AM-107, and AM-111, the permittee shall not cause, permit, or allow the emission from any manufacturing process (sandblasting), in any one hour from any point source, particulate matter in total quantities in excess of the amount determined by the relationship

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

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

Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs. (Ref.: APC-S-1, Section 3.6(a))

- 3.B.18 For Emission Points AC-101 (AC-106) and AC-201 (AC-206), the permittee shall not cause or permit the emission of gas containing sulfur oxides (measured as sulfur dioxide) in excess of 500 ppm (volume). (Ref.: APC-S-1, Section 4.2(a))
- 3.B.19 The permittee shall comply with the limits established in the Federally Enforceable Permit to Construct issued on November 2, 2001. These limits are specifically stated in Table 3.B for each emission point.
- 3.B.20 The permittee shall comply with the limits established in the Federally Enforceable Permit to Construct issued on March 1, 2002. These limits are specifically stated in Table 3.B for each emission point.
- 3.B.21 The permittee shall comply with the limits established in the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004. These limits are specifically stated in Table 3.B for each emission point.
- 3.B.22 For Emission Points AC-101(AC-106) and AC-201 (AC-206), upon certification of construction with “TRI Project” Federally Enforceable Permit to Construct issued on November 8, 2005, the permittee shall comply with the requirements of 40 CFR Part 60, Subpart A, General Provisions, 60.7 and 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial –Commercial- Institutional Steam Generating Units, 60.40c. (Ref.: 40 CFR 60.7 and 40 CFR 60.40c)
- 3.B.23 For Emission Point AF-202, should any of the parameters used to perform the dispersion modeling for the rental boiler’s emissions in the “Sustainable Growth” PSD application differ from the parameters of the actual or initial rental boiler brought on site, the permittee shall determine how these differences impact the PM<sub>10</sub> concentrations for air quality purposes. (Differences may include but are not limited to changes in stack height, stack diameter, location within the plant site,

etc.) Should differences occur such that there may be an increase in PM<sub>10</sub> concentration levels, the permittee shall revise and resubmit the PM<sub>10</sub> dispersion modeling to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments. (Ref.: “Sustainable Growth” Federally Enforceable Permit to Construct issued on June 8, 2004)

- 3.B.24 DEQ reserves the authority to reopen, revise, and/or modify or revoke this permit, any previously issued permit to construct, or any part of a permit (emission limitations or conditions) as deemed necessary to protect human health, to prevent adverse effects on plant or animal life beyond the plant boundaries, and to protect the environment in general, based on new pertinent health-based data, specifically air emissions data prepared by the Agency for Toxic Substances and Disease Registry (ATSDR). (Ref.: APC-S-2, Section II.B.6(b) and Section V; APC-S-6, Section III.A.6.c (see Condition 1.3), and the “Sustainable Growth” Federally Enforceable Permit to Construct issued on June 8, 2004)
- 3.B.25 Emission Points AB-106, AB-206, AD-104, AD-105, AD-106, AD-107, AD-132, AD-139, AD-150, AD-151, AD-152, AD-153, AF-143, AF-151, AM-101, AM-102, AM-103, and AM-113 are subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ, and the applicable General Provisions of 40 CFR Part 63, Subpart A, as specified in Table 8 to Subpart ZZZZ. (Ref.: 40 CFR 63.6585 and 63.6665)
- 3.B.26 Emission Points AB-106, AB-206, and AF-143 are considered new emergency stationary compression ignition (CI) RICE that are not required to meet the requirements of 40 CFR Part 63, Subpart ZZZZ, or the General Provisions, 40 CFR Part 63, Subpart A, except for the initial notification requirements of §63.6645(h). (Ref.: 40 CFR 63.6590(a)(2)(i) and (b)(1)(i))
- 3.B.27 Emission Points AD-104 and AD-151 are considered new non-emergency CI RICE rated less than 500 BHP that are subject to the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (CI ICE), 40 CFR Part 60, Subpart IIII. Per 40 CFR 63.6590(c), these units are complying with the requirements of Subpart ZZZZ by meeting the requirements of NSPS Subpart IIII. (Ref.: 40 CFR 63.6590(a)(2)(ii) and 63.6590(c))
- 3.B.28 Emission Points AF-151 and AM-113 are considered existing CI emergency stationary RICE with site ratings less than 500 HP. Beginning May 3, 2013, these emission points shall comply with the following requirements except during periods of startup:

- (a) Change oil and filter every 500 hours of operation or annually, whichever comes first;
- (b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
- (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

(Ref.: 40 CFR 63.6602 and Table 2c of Subpart ZZZZ)

3.B.29 Emission Points AD-105, AD-106, AD-107, and AD-132 are considered existing, non-emergency CI RICE with site ratings less than 100 HP. Beginning May 3, 2013, these emission points shall comply with the following requirements except during periods of startup:

- (a) Change oil and filter every 1000 hours of operation or annually, whichever comes first;
- (b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
- (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

(Ref.: 40 CFR 63.6602 and Table 2c of Subpart ZZZZ)

3.B.30 Emission Points AD-139, AD-150, AD-152, AD-153, AM-101, AM-102, and AM-103 are considered existing, non-emergency CI RICE with site ratings between 100 and 300 HP. Beginning May 3, 2013, the permittee shall limit the concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O<sub>2</sub>, except during periods of startup. (Ref.: 40 CFR 63.6602 and Table 2c of Subpart ZZZZ)

3.B.31 For Emission Points AD-105, AD-106, AD-107, AD-132, AD-139, AD-150, AD-152, AD-153, AF-151, AM-101, AM-102, AM-103, and AM-113, beginning May 3, 2013, during periods of startup, the permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. The permittee may also petition the DEQ for use of an alternative work practices and/or to the operational requirements for startup. (Ref.: 40 CFR 63.6625(h) and Table 2c of Subpart ZZZZ)

- 3.B.32 Emission Points AB-202 and AJ-201 are subject to and shall comply with the provisions of the Standards for Performance for Calciners and Dryer in Mineral Industries, 40 CFR Part 60, Subpart UUU.
- 3.B.33 For Emission Points AB-106, AB-206, AF-143, AF-151, AD-104, AD-105, AD-106, AD-107, AD-139, AD-150, AD-151, AD-152, AD-153, AM-101, AM-102, AM-103, and AM-113, 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. (Ref.: APC-S-1, Section 3.4(a)(1))
- 3.B.34 Beginning February 7, 2008, Emission Points AH-206 and AH-207 are subject to National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline), 40 CFR Part 63, Subpart EEEE. These units are is affected sources per 40 CFR 63.2334(a) of the rule; however, they will not be subject to any of the emission limitations, operating limits, or work practice standards of this subpart, although there are applicable reporting and recordkeeping requirements. (Ref: 40 CFR 63.2231)
- 3.B.35 For Emission Point AB-109, the permittee shall not use coke that exceeds 3.36 weight % sulfur during periods of Chlorinator Reactor Lightoff Operating Mode. (Ref.: Title V Operating Permit issued May 9, 2006 and modified August 11, 2009)
- 3.B.36 Emission Points AF-143, AB-106, AB-206, AD-104, and AD-151 are subject to the New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (CI ICE) (40CFR Part 60, Subpart IIII) and the applicable requirements of the General Provisions (40 CFR Part 60, Subpart A) as expressed in §60.4218 and Table 8 of Subpart IIII. (Ref.: 40 CFR 60.4200(a)(2))
- For Emission Points AB-106, AB-206, AD-104, and AF-143, the permittee must comply with the emission standards in Table 1 to NSPS Subpart IIII. (Ref.: 40 CFR 60.4204(a) and 60.4205(a))
- For Emission Point AD-151, the permittee must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power. Specifically, the permittee must comply with §60.4202(a)(2) which refers to requirements found in §§89.112-113. (Ref.: 40 CFR 60.4204(b))
- The permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. (Ref.: 40 CFR 60.4206)

- 3.B.37 Emission Points AB-106, AB-206, and AF-143 may be operated for the purposes of maintenance checks and readiness testing, provided that the tests are recommended by the Federal, State, or local government, the manufacturer, the vendor, of the insurance company associated with the engine. 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 emergency stationary ICE in emergency situations. Anyone may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited, unless otherwise specified in Condition 3.B.40. (Ref.: §60.4211(e))
- 3.B.38 For Emission points AB-106, AB-206, AD-104, AF-143, and AD-151, beginning October 1, 2007, the permittee must use diesel fuel that meets the requirements of 40 CFR 80.510(a). Beginning October 1, 2010, the permittee must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. (Ref.: 40 CFR 60.4207(a) and (b))
- 3.B.39 For Emission Points AD-105, AD-106, AD-107, AD-132, AF-151, and AM-113, the permittee may choose to utilize an oil analysis program as outlined in Condition 5.B.47 of this permit in order to extend the specified oil change requirement in Table 2c of 40 CFR Part 63, Subpart ZZZZ. (40 CFR 63.6625(i) and Table 2c of Subpart ZZZZ)
- 3.B.40 For Emission Points AB-106, AB-206, AF-143, AF-151 and AM-113, the permittee must operate the engines according to the following:
- (a) Any operation other than emergency operation, maintenance and testing and operation in non-emergency situations for 50 hours per year is prohibited;
  - (b) There is no operating limit on the use of the engine during an emergency situation;
  - (c) The engine may be operated for the purpose of maintenance checks and readiness testing in accordance with vendor, manufacturer, State or Federal recommendations. Such testing is limited to 100 hours per year.
  - (d) The engine may be operated up to 50 hours per year in non-emergency situations; however, those 50 hours count towards the 100 hour limit in (c) above. The 50 hours per year for non-emergency operation can not be used to cover the power usage provisions outlined in §63.6640(f)(4).

(Ref.: 40 CFR 63.6640(f)(1) through (4))



**C. Insignificant and Trivial Activity Emission Limitations & Standards**

Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
APC-S-1, Section 3.4(a)(1)	3.C.1	PM	0.6 lbs./MMBTU
APC-S-1, Section 4.1(a)	3.C.2	SO <sub>2</sub>	4.8 lbs./MMBTU
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 Except as otherwise specified, no person shall cause, permit, or allow the emission from any manufacturing process, in any one hour from any point source, particulate matter in total quantities in excess of the amount determined by the relationship

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

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

Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs.



#### 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.)
- 4.3 The permittee is subject to and shall comply with the applicable requirements of 40 CFR Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE). The permittee shall comply with the requirements of Subpart ZZZZ, as specified in Conditions 3.B.25, 3.B.26, 3.B.28 through 3.B.31, 3.B.39, 3.B.40, 5.B.44 through 5.B.50, 5.B.58, 5.C.6, 5.C.7, and 5.C.8 no later than **May 3, 2013**.

## 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 where a longer duration is specified in an applicable requirement, 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**

<b>Emission Point(s)</b>	<b>Pollutant/ Parameter Monitored</b>	<b>Monitoring/Recordkeeping Requirement</b>	<b>Condition Number</b>
AB-102, AB-104, AB-202, AB-204, AC-101, AC-102, AC-201, AC-202, AF-101 (both boilers operating simultaneously), AF-102, AF-103, AF-202, AG-101, AH-101, AH-107, AH-201, AH-202, AJ-101, and AJ-201	PM/PM <sub>10</sub> & Opacity	Stack testing in accordance with EPA Reference Methods 1-5 and Method 9	5.B.1
AC-101, AC-201, AF-101 (both boilers operating simultaneously), and AF-103	SO <sub>2</sub>	Stack testing in accordance with EPA Reference Method 6	5.B.2
AF-101A and AF-101B	SO <sub>2</sub>	Coal Analysis	5.B.3
AB-202, AC-101, AC-201, AF-103, AF-202, AH-101, AH-201, AH-202, and AJ-201	NO <sub>x</sub>	Stack testing in accordance with EPA Reference Method 7	5.B.4
AF-103 and AF-202	NO <sub>x</sub>	Operation of a continuous emission monitor	5.B.5
AB-202, AC-101, AC-201, AF-103, AF-202, AH-101, AH-201, AH-202, and AJ-201	CO	Stack testing in accordance with EPA Reference Method 10	5.B.6
AC-101 and AC-201	CO, COS, & SO <sub>2</sub>	Operation of continuous emission monitors (CO & COS only) and for SO <sub>2</sub> adhere to Compliance Plan attached as Appendix F	5.B.7
AC-101, AC-201, AJ-101, and AJ-201	VOC	Stack testing in accordance with EPA Reference Method 25 or 25A	5.B.8

Emission Point(s)	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number
AA-101 through AA-105, AL-107, AA-201, AA-202, AA-203, AA-204, AA-205, AB-101, AB-102, AB-103, AB-104, , AB-109, AB-201, AB-202, AB-203, AB-204, AC-101, AC-102, AC-201, AC-202, AD-101, AD-102, AD-103, AF-102, AF-103, AF-202, AG-101, AH-103, AH-104, AH-107, AH-202, AH-203, AH-204, AI-176, AJ-101, AJ-201, AK-101, AK-102, AK-103, AK-104, AK-105, AK-106, AK-107, AK-110, AL-101, AL-102, AL-103, AL-104, AL-105, AL-106, AL-107, AL-109, AL-110, AL-111, AL-112, AM-104, AM-105, AM-106, AM-107, and AM-111	PM/Opacity	Weekly visible observations which may include the performance of a Visible Emission Evaluation (VEE) in accordance with EPA Reference Method 9 if emissions are observed.	5.B.9 and 5.B.12
AF-101A and AF-101B	PM/Opacity	Continuous monitoring	5.B.10
AC-101, AC-102, AC-201, AC-202, AG-101, and AH-107	HCl	Stack testing in accordance with EPA Reference Method 26A	5.B.11
AC-101, AC-201, AC-202, AG-101, and AH-107	Cl <sub>2</sub>	Stack testing in accordance with EPA Reference Method 26A	5.B.11
AH-104 and AH-204	PM/Water level	Continuously monitor level of water	5.B.13
AC-101 and AC-201	SO <sub>2</sub>	Relative to the continuous monitoring performed under Condition 5.B.7 and 5.B.30, in association with other collected data, the permittee shall calculate the SO <sub>2</sub> production rate and emission rate in pounds per hour (see Title V sulfur dioxide monitoring plan attached in Appendix F)	5.B.14
AA-102 through AA-105, AA-107, AB-101, AB-103 through AB-104, AB-201 through AB-204, AD-103, AF-102, AJ-201, AK-101 through AK-107, AK-110, AL-101 through AL-107, AL-109, and AL-110	PM and Opacity/ Pressure Drop	Continuous monitoring of pressure drop	5.B.15

Emission Point(s)	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number
Facility-Wide	Maintenance Inspections	Weekly inspections, and/or maintenance, and recordkeeping	5.B.16
AB-102, AB-202, AH-101, AH-102, AH-201, AH-202, AJ-101, and AJ-201	SO <sub>2</sub> , NO <sub>x</sub> , CO, PM, VOC (if applicable), and Opacity Monthly Fuel Monitoring	Fuel Quantity and Quality	5.B.17
AB-202, AF-103, AF-202, AH-101, AH-201, AH-202 and AJ-201	NO <sub>x</sub> , CO, and VOC	Continuous monitoring of air to fuel ratio, stack oxygen, fuel gas rate; semi-annual sampling utilizing a portable analyzer	5.B.18
AH-106	VOC/Storage Tank Monitoring	Monthly monitoring and recordkeeping	5.B.19
AC-101, AC-201, and AH-107	Flow rate, Pressure drop, and pH (only pH and Flow rate for AH-107)	Continuous monitoring	5.B.20
AB-102, AB-109, AC-102, AC-202, AG-101, and AJ-101	Flow rate and Pressure drop	Continuous monitoring	5.B.21
AH-204	PM/Daily monitoring	Monitoring, Recordkeeping, and Reporting	5.B.22
AC-101 and AC-201	H <sub>2</sub> SO <sub>4</sub> (Acid Mist)	Stack testing in accordance with EPA Reference Method 8.	5.B.23
AL-112	VOC/HAP	Monitoring, Recordkeeping, and Reporting	5.B.24
AC-101 and AC-201	PM <sub>10</sub>	Stack testing in accordance with EPA Reference Method 201 or 201A.	5.B.25
AF-101A and AF-101B	SO <sub>2</sub>	Recordkeeping and Reporting	5.B.26
AM-105 and AM-111	PM and PM <sub>10</sub> / Daily Monitoring	Monitoring, Recordkeeping, and Reporting	5.B.27
AJ-101, AJ-201 and AL-105	VOC	Monitoring, Recordkeeping, and Reporting	5.B.28
AB-201, AB-202, AB-203, AB-204, AC-202, AH-204, AJ-101, AJ-201, AK-105, AK-106, AL-105, AL-106, AL-109, and AL-110	Operational limitation (control device)	Monitoring, Recordkeeping, and Reporting	5.B.29

<b>Emission Point(s)</b>	<b>Pollutant/ Parameter Monitored</b>	<b>Monitoring/Recordkeeping Requirement</b>	<b>Condition Number</b>
AC-101 and AC-201	SO <sub>2</sub>	Continuously monitor scrubber recirculation flow and pH (see Title V sulfur dioxide monitoring plan attached in Appendix F)	5.B.30
AC-202	Hours of operation and calculated PM emissions	Monitoring, Recordkeeping, and Reporting	5.B.31
AF-103, and AF-202	Daily fuel monitoring	Daily recordkeeping	5.B.32
AH-203	Hours of operation and calculated PM emissions	Monitoring, Recordkeeping, and Reporting	5.B.33
AA-001	Fugitive emissions and opacity	Monitoring, Recordkeeping, and Reporting	5.B.34 and 5.B.35
Facility-Wide or applicable emission points	Variance to Biennial Stack Testing	The permittee may submit a request for variance of subsequent testing.	5.B.36
AD-151	Purchase certified engine	The permittee must purchase and install an engine certified to meet applicable emission standards.	5.B.37
AC-101 and AC-201	COS	Stack testing in accordance with EPA Reference Method 15 or 15A	5.B.38
AB-201, AB-203, AD-103, AK-101 through AK-107, AK-110, AL-101 through AL-107, AL-109, and AL-110	PM/Daily monitoring	Monitoring, Recordkeeping, and Reporting	5.B.39
AC-101 and AC-201	Cl <sub>2</sub> and HCl	Continuously monitor pH (see CAM/TV monitoring plan attached in Appendix D)	5.B.40
AF-202	Daily monitoring	Monitoring, Recordkeeping, and Reporting	5.B.41
AC-101 and AC-201	Cl <sub>2</sub> and HCl	Continuously monitor scrubber flow (see CAM/TV monitoring plan attached in Appendix D)	5.B.42
AB-106, AB-206, and AF-143	HAP	Monitor and record all periods of non-emergency use	5.B.43
AD-139, AD-150, AD-152, AD-153, AM-101, AM-102, and AM-103	CO	Perform initial performance test for CO emissions.	5.B.44
AD-105, AD-106, AD-107, AD-132, AF-151, and AM-113	Maintenance	Operate and maintain RICE according to manufacturer's instructions or site-specific maintenance plan.	5.B.45



<b>Emission Point(s)</b>	<b>Pollutant/ Parameter Monitored</b>	<b>Monitoring/Recordkeeping Requirement</b>	<b>Condition Number</b>
AF-151 and AM-113	Hours of operation	Install non-resettable hour meter.	5.B.46
AD-105, AD-106, AD-107, AD-132, AF-151, and AM-113	Oil analysis program	Optional oil analysis program to extend the oil change requirements in Conditions 3.B.28 and 3.B.29.	5.B.47
AD-105, AD-106, AD-107, AD-132, AD-139, AD-150, AD-152, AD-153, AF-151, AM-101, AM-102, AM-103, and AM-113	Recordkeeping	Keep records described in 40 CFR 63.6655(a)(1)-(5), as applicable.	5.B.48
AD-105, AD-106, AD-107, AD-132, AF-151, and AM-113	Maintenance Records	Keep records of maintenance.	5.B.49
AF-151 and AM-113	Hours of operation	Keep records of hours of emergency and non-emergency operation.	5.B.50
AC-101, AC-106, AC-201, and AC-206	Fuel Monitoring	Monitoring, Recordkeeping, and Reporting	5.B.51
AB-202 and AJ-201	PM Testing/Visual Emission Evaluation	Stack testing in accordance with EPA Reference Method 1-5 and Method 9.	5.B.52
AB-109	SO <sub>2</sub> , CO, & COS/ Hours of operation and sulfur content of the petroleum coke used during Chlorinator Lightoff Operating Mode	Monitoring, Recordkeeping, and Reporting	5.B.53
AH-206 and AH-207	HAPs	Recordkeeping	5.B.54
AB-106, AB-206, and AF-143	Hours of Operation	Install non-resettable hour meter	5.B.55
AB-106, AB-206, AD-104, AD-151, and AF-143	Maintenance	Operate and maintain the CI ICE according to the manufacturer's written instructions	5.B.56
AB-106, AB-206, AD-104, and AF-143	Manufacturer's Data	Maintain records of manufacturer's data demonstrating compliance with the standards	5.B.57

Emission Point(s)	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number
AD-105, AD-106, AD-107, AD-132, AD-139, AD-150, AD-152, AD-153, AF-151, AM-101, AM-102, AM-103, and AM-113	Recordkeeping	Maintain records required by 40 CFR 63.6660 and keep records for 5 years.	5.B.58

5.B.1 For each emission point, the permittee shall demonstrate compliance with particulate matter (PM) and Opacity emission limitations by performing a stack test in accordance with EPA Reference Methods 1-5 and Method 9, respectively, within 18 months of issuance of this permit and within 24 months of the previous testing, thereafter. Demonstration of compliance with the PM emission limitations shall be deemed compliance with the equivalent PM<sub>10</sub> limits, where applicable.

For Emission Point AF-202, the permittee shall demonstrate compliance and submit said test report within 18 months of startup of the modified emission unit or new emission unit as required by the “Sustainable Growth” Federally Enforceable Permit to Construct or in lieu of testing, the permittee is allowed to provide actual test data from within two years of the installation date of the unit.

For Emission Points AG-101 and AJ-201, the permittee shall demonstrate compliance and submit said test report within 180 days of certification of construction for the modified emission unit as required by the “TRI Project” Federally Enforceable Permit to Construct.

For all other emission points, the permittee shall submit said test report within 60 days of performance of the test. For the purpose of compliance demonstration, the permittee shall operate the sources within 20% of their maximum rated capacity or at a rate identified in the pretest conference, with the exception of AF-103, and AF-202, which shall operate within 10% of their maximum rated capacity.

During any demonstration of compliance required for emission point AG-101, the permittee shall conduct said test while Line 1 and Line 2 purification processes are operating simultaneously.

If the permittee plans to use a test method, procedure, or operating condition that differs from the requirements of this permit herein, then a pretest conference at least thirty (30) days prior to the scheduled test date is needed to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ must be notified prior to the scheduled test date. At least TEN (10) DAYS notice should

be given so that an observer may be scheduled to witness the test(s).

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004, and the “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

- 5.B.2 For each emission point, the permittee shall demonstrate compliance with the sulfur dioxide (SO<sub>2</sub>) emission limitations by performing a stack test in accordance with EPA Reference Method 6 within 18 months of issuance of this permit and within 24 months of the previous testing, thereafter. For Emission Point AF-103, the demonstration of compliance shall be conducted while the unit is being fueled by a mixture of landfill gas and natural gas containing a minimum of 30% landfill gas.

For all other emission points, the permittee shall submit said test report within 60 days of performance of the test. For the purpose of compliance demonstration, the permittee shall operate the sources within 20% of their maximum rated capacity or at a rate identified in the pretest conference, with the exception of Emission Point AF-103, which shall operate within 10% of their maximum rated capacity.

If the permittee plans to use a test method, procedure, or operating condition that differs from the requirements of this permit herein, then a pretest conference at least thirty (30) days prior to the scheduled test date is needed to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ must be notified prior to the scheduled test date. At least TEN (10) DAYS notice should be given so that an observer may be scheduled to witness the test(s).

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004, and the “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

- 5.B.3 For Emission Points AF-101A and AF-101B, the permittee shall monitor and maintain monthly records of the type, quantity, quality (sulfur, chlorine, and ash content), and heating value (BTU/gal or BTU/lbs.) of fuel(s) combusted. The permittee is allowed to use a fuel supplier analysis from the most recent shipment for determining the quality of the fuel being burned. The permittee shall maintain these records monthly and on a rolling 12-month basis, and shall report the required monitoring in accordance with Condition 5.A.4. The permittee shall also keep these records in accordance with Condition 5.A.3 and make them available upon request by DEQ personnel. (Ref.: APC-S-6, Section III.A.3.a(2))

- 5.B.4 For each emission point, the permittee shall demonstrate compliance with the nitrogen oxides (NO<sub>x</sub>) emission limitations by performing a stack test in accordance with EPA Reference Method 7 within 18 months of the issuance of this permit and within 24 months of the previous testing, thereafter, with the exception of Emission Points AF-103, and AF-202, which shall adhere to the requirements of Condition 5.B.5.

For Emission Points AF-103, AF-202, AH-101, AH-201, and AJ-201, the permittee shall demonstrate compliance and submit said test report within 18 months of physical or operational change, with the exception of Emission Point AF-103 which shall demonstrate compliance within 60 days of reaching maximum production or 180 days of startup. For Emission Point AF-202, the permittee shall demonstrate compliance within 60 days of startup of the emission unit as required by the “Sustainable Growth” Federally Enforceable Permit to Construct.

For Emission Point AJ-201, the permittee shall demonstrate compliance and submit said test report within 180 days of certification of construction for the modified emission unit as required by the “TRI Project” Federally Enforceable Permit to Construct.

For all other emission points, the permittee shall submit said test report within 60 days of performance of the test. For the purpose of compliance demonstration, the permittee shall operate the sources within 20% of their maximum rated capacity or at a rate identified in the pretest conference, with the exception of Emission Points AF-103, and AF-202, which shall operate within 10% of their maximum rated capacity.

If the permittee plans to use a test method, procedure, or operating condition that differs from the requirements of this permit herein, then a pretest conference at least thirty (30) days prior to the scheduled test date is needed to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ must be notified prior to the scheduled test date. At least TEN (10) DAYS notice should be given so that an observer may be scheduled to witness the test(s).

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004, and the “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

- 5.B.5 For Emission Points AF-103, and AF-202, the permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) for monitoring nitrogen oxides. This system shall meet specifications under 40 CFR Part 60, Appendix B, and shall comply with the provisions of 40 CFR Part 60, Section 60.13, 60.46b(e), and 60.48b, and Appendix F. The permittee shall

demonstrate compliance by stack testing for the allowable NO<sub>x</sub> emission rate annually. This demonstration of compliance may be coordinated with the Relative Accuracy Test Audit (RATA) conducted annually. The permittee may monitor the steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted and approved pursuant to §60.49b(c). (Ref.: 40 CFR 60.13, 60.48b, Appendix B and F)

Per 40 CFR 60.7(f), any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring systems performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurements, maintenance, reports, and records. (Ref.: 40 CFR Part 60.7 and 60.49b)

- 5.B.6 For each emission point, the permittee shall demonstrate compliance with the carbon monoxide (CO) emission limitations by performing a stack test in accordance with EPA Reference Method 10 within 18 months of the issuance of this permit and within 24 months of the previous testing, thereafter.

For Emission Point AF-202, the permittee shall demonstrate compliance and submit said test report within 18 months of startup of the modified or new emission unit, as required by the “Sustainable Growth” Federally Enforceable Permit to Construct or in lieu of testing, the permittee is allowed to provide actual test data from within two years of the installation date of the unit.

For Emission Point AJ-201, the permittee shall demonstrate compliance and submit said test report within 180 days of certification of construction for the modified emission unit as required by the “TRI Project” Federally Enforceable Permit to Construct.

For Emission Point AC-101 and AC-201, upon the initial demonstration of compliance required by the above aforementioned permits to construct, future demonstration of compliance will be performed in conjunction with the Relative Accuracy Test Audits performed annually for continuous emission monitors.

For all other emission points, the permittee shall submit said test report within 60 days of performance of the test. For the purpose of compliance demonstration, the permittee shall operate the sources within 20% of their maximum rated capacity or at a rate identified in the pretest conference, with the exception of Emission Points AF-103, and AF-202, which shall operate within 10% of their maximum rated capacity.

If the permittee plans to use a test method, procedure, or operating condition that differs from the requirements of this permit herein, then a pretest conference at least thirty (30) days prior to the scheduled test date is needed to ensure that all test

methods and procedures are acceptable to the DEQ. Also, the DEQ must be notified prior to the scheduled test date. At least TEN (10) DAYS notice should be given so that an observer may be scheduled to witness the test(s).

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004, and the “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

- 5.B.7 For Emission Points AC-101 and AC-201, the permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) for continuously monitoring and recording the concentration by volume (dry basis) of sulfur dioxide (SO<sub>2</sub>) emissions, the concentration by volume (dry basis) of carbon monoxide (CO) emissions, the concentration levels of carbonyl sulfide (COS) emissions, and the stack gas velocity and/or volumetric flowrate. These CEMS have been determined to be presumptively acceptable monitoring for purposes of CAM and will be used to determine compliance with the applicable emission limitations expressed in Section 3 herein. These continuous monitoring systems shall meet or shall be consistent with the requirements and specifications under 40 CFR Part 60, Appendix B, and shall be consistent with the requirements of 40 CFR 60.7 and 60.13 and the quality assurance procedures specified in 40 CFR Part 60, Appendix F, including quarterly accuracy determinations and daily calibration drift tests for each continuous monitoring system.

Per 40 CFR 60.7(f), any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring systems performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurements, maintenance, reports, and records.

The continuous monitoring system shall be operated and record data during all periods of the Line 1 and/or Line 2 Hydrogen Chloride (HCl) Recovery Process operation, respectively, including periods of startup, shutdown, malfunction, or emergency conditions, except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks and zero span adjustments.

In lieu of installing a continuous emission monitor (CEM) for SO<sub>2</sub> emissions from these emission points, the permittee shall comply with the plan for pre-“TRI Project” completion and upon completion of the “TRI Project” the revised plan both in Appendix F. The requirements of this plan are contained in Condition

5.B.14.

The permittee shall maintain records of the SO<sub>2</sub> emission rate and the monitored operating conditions and/or parameters identified in the applicable plan.

The permittee shall perform a conversion of all CMS collected data into units of applicable standards (e.g. lbs./hr, lbs./day, TPY).

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004, and the “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

- 5.B.8 For Emission Point AC-101, AC-201, and AJ-201, the permittee shall demonstrate compliance with volatile organic compounds (VOC) emission limitations by performing a stack test in accordance with EPA Reference Method 25 or 25A within 18 months of the issuance of this permit and within 24 months of the previous testing, thereafter.

For Emission Points AJ-101, and AJ-201, the permittee shall demonstrate compliance and submit said test report within 180 days of certification of construction for the modified emission unit as required by the “TRI Project” Federally Enforceable Permit to Construct.

For all other emission points, the permittee shall submit said test report within 60 days of performance of the test. For the purpose of compliance demonstration, the permittee shall operate the sources within 20% of their maximum rated capacity or at a rate identified in the pretest conference.

If the permittee plans to use a test method, procedure, or operating condition that differs from the requirements of this permit herein, then a pretest conference at least thirty (30) days prior to the scheduled test date is needed to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ must be notified prior to the scheduled test date. At least TEN (10) DAYS notice should be given so that an observer may be scheduled to witness the test(s).

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004, and the “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

- 5.B.9 For each emission point, the permittee shall assure compliance with the opacity limitations by performing weekly visible observations of emissions from exhaust stacks. If any visible emissions are detected during an observation period of six

(6) consecutive minutes, a visible emission evaluation (VEE) shall be performed using EPA Reference Method 9. If a VEE is performed using EPA Reference Method 9, then the observation period shall consist of a minimum of 18 consecutive minutes. Further, the permittee shall maintain a record and/or a log documenting all visual observations/tests, the nature and cause of any visible emissions, any corrective action(s) taken to prevent or minimize the emissions, and the date and time when visible emission observations were conducted. These records and/or log shall be maintained in accordance with Condition 5.A.3 and a summarized report submitted in accordance with Condition 5.A.4 and made available upon request by DEQ.

For Emission Points AA-102 through AA-105, AA-107, AB-103, AB-201, AB-203, AD-103, AH-204, AK-101 through AK-107, AK-110, AL-101 through AL-107, AL-109, and AL-110, the permittee shall perform weekly visual emissions observations for visible emissions produced during material processing, handling, and/or transfer operations. Each visual emission observation shall be conducted for a minimum of six (6) consecutive minutes. If any visible emissions (not including condensed water vapor) are observed, the permittee shall initiate corrective action that eliminates the visible emissions and shall perform a VEE in accordance with EPA Reference Method 9 for a minimum of 18 consecutive minutes to determine compliance with the opacity standard. If the corrective action does not result in “no visible emissions” being observed from the emission point, the permittee shall notify DEQ in writing within five (5) business days and shall demonstrate compliance with the PM emission limitations by stack testing according to EPA Reference Methods 1-5 and submittal of the said stack test report within 120 days of DEQ’s receipt of the permittee’s letter.

For Emission Points AH-103 and AH-203, if any visible emissions are observed, the permittee shall perform a VEE in accordance with EPA Reference Method 9 (minimum of 18 consecutive minutes) to determine compliance with the opacity standard. The permittee shall initiate corrective action if any 6-minute average results in an opacity of greater than 15%. If corrective action does not result in an opacity of equal to or lesser than 15%, the permittee shall notify DEQ in writing within five (5) days and shall demonstrate compliance with particulate matter emission limitations by stack testing in accordance with EPA Reference Method 1-5 and submittal of said stack test report within 120 days of DEQ’s receipt of the permittee’s letter.

The permittee shall maintain records documenting the following:

- (a) Results of all required visual observations/tests;
- (b) The date and time visible emissions were observed and abated;



- (c) The nature and cause of any visible emissions;
- (d) A description of corrective action or preventive measures taken.

Should the observed visible emissions result in an exceedance of the opacity limitation for the emission point and/or be associated with a malfunction, upset, or otherwise an emergency, the incident shall be logged and reported in accordance with Condition 5.A.5 and shall include a description of what corrective action was taken to eliminate the visible emissions. These records and/or log shall be maintained in accordance with Condition 5.A.3, and a summarized report shall be submitted in accordance with Condition 5.A.4 and made available upon request by DEQ.

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004)

- 5.B.10 For Emission Points AF-101A and AF-101B, the permittee shall maintain, calibrate, and operate a continuous monitoring system for measuring the opacity of the emissions being discharged from the exhaust stack to the atmosphere and recording the output of the system.

The continuous opacity monitor (COM) shall be operated and data recorded during all periods of boiler operations, including periods of soot blowing, startup, shutdown, malfunction, or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero span adjustments. Periods of excess emissions shall be defined as any six (6) minute period during which the average opacity, as measured by the COM, exceeds 40 percent.

The permittee shall follow 40 CFR Part 60, Appendix B, Performance Specification 1, including quarterly accuracy determinations and daily calibration drift tests, for the COM.

The permittee shall summarize this information in a report and submit it on a calendar quarterly basis. This submittal shall be postmarked no later than 30 days following the end of each calendar quarter. The information and data required by this condition shall be maintained on site in accordance with Condition 5.A.3 and made available upon request from DEQ personnel. (Ref.: APC-S-6, Section III.A.3.a(2))

- 5.B.11 For each Emission Point AC-101, AC-201, AC-202, AG-101, and AH-107, the permittee shall demonstrate compliance with HCl and Chlorine (Cl<sub>2</sub>) emission

limitations by performing a stack test in accordance with EPA Reference Method 26A within 18 months of the issuance of this permit and within 24 months of the previous testing, thereafter. For Emission Point AC-102, the permittee shall demonstrate compliance with HCl emission limitations by performing a stack test in accordance with EPA Reference Method 26A within 18 months of the issuance of this permit and within 24 months of the previous testing, thereafter. The permittee shall submit said test report within 60 days of performance of the test. For the purpose of compliance demonstration, the permittee shall operate the sources within 20% of their maximum rated capacity or at a rate identified in the pretest conference.

For Emission Point AG-101, the permittee shall demonstrate compliance and submit said test report within 180 days of certification of construction for the modified emission unit as required by the “TRI Project” Federally Enforceable Permit to Construct.

(Ref.: APC-S-6, Section III.A.3.a(2) and the “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

If the permittee plans to use a test method, procedure, or operating condition that differs from the requirements of this permit herein, then a pretest conference at least thirty (30) days prior to the scheduled test date is needed to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ must be notified prior to the scheduled test date. At least TEN (10) DAYS notice should be given so that an observer may be scheduled to witness the test(s).

- 5.B.12 For the purpose of conducting a visible emission survey, as a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training must be obtained from the written material found in References 1 (“Guidelines for Evaluation of Visible Emissions Certification, Field Procedures, Legal Aspects, and Background Material”) and Reference 2 (“Guidelines for Development of a Quality Assurance Program: Volume IX-Visual Determination of Opacity Emissions from Stationary Sources”) or the lecture portion of the EPA Reference Method 9 certification course provided on a semi-annual basis.
- 5.B.13 For Emission Points AH-104 and AH-204, the permittee shall monitor and record on a continuous basis the level of water maintained in the vat. Furthermore, the permittee shall maintain a log of the downtime of the fan or blower. This data shall be maintained on site in log form in accordance with Condition 5.A.3 and shall be made available upon request from DEQ personnel. The permittee shall

submit a summarized report of this data in accordance with Condition 5.A.4. (Ref.: APC-S-6, Section III.A.3.a(2) and the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004)

5.B.14 For Emission Point AC-101 and AC-201, the permittee shall use the data monitored in Condition 5.B.30 in association with the calculated amount of coke burned and sulfur analysis of the coke to calculate a continuous SO<sub>2</sub> production rate and SO<sub>2</sub> emission rate in pounds/hour. An exceedance will be defined as any 3-hour rolling average where the predicted SO<sub>2</sub> emission rate is greater than the applicable lb/hr limitation for each emission point described in Table in Section 3 of this permit. The conditions that should prevent an exceedance are described in Conditions 5.B.30 and 5.B.40. Any exceedance will trigger an inspection, corrective action, and a report of the exceedance. This data, including all exceedances, will be maintained in log form in accordance with Condition 5.A.3 and shall be made available upon request from DEQ personnel. The permittee shall submit a summarized report of this data in accordance with Condition 5.A.4. (Ref.: APC-S-6, Section III.A.3.a(2) and the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004)

5.B.15 For Emission Points AA-102 through AA-105, AA-107, AB-103 through AB-104, AB-202 through AB-204, AD-103, AF-102, AJ-201, AK-101 through AK-107, AK-110, AL-101 through AL-107, AL-109, and AL-110, where the baghouse is the primary control device, the permittee shall continuously monitor and record the pressure drop readings across each baghouse emission control system. The permittee shall use the alarm or warning device for each baghouse emission control system to document any 3-hour rolling average pressure drop that is not within the target range established from the last demonstration of compliance where applicable and/or based on historical operating conditions for the baghouse. In the event the 3-hour rolling average pressure drop falls out of the target range, the permittee shall take prompt corrective action to return the baghouse back to within the monitoring range. Furthermore if a warning device malfunctions, the permittee shall begin recording daily pressure drop readings within five (5) days of the malfunction. Once the warning devices is repaired and/or replaced, the permittee shall resume recording the pressure drop on a continuous basis. These events shall be recorded and maintained in log form in accordance with Condition 5.A.3 and shall be made available to DEQ personnel upon request. Further, the permittee shall submit a summary report of this information in accordance with Condition 5.A.4.

For Emission Points AB-101 and AB-201, which are not equipped with a continuous monitoring system, the permittee shall monitor and record the pressure drop readings during the weekly maintenance inspections. The permittee shall submit a summarized report in accordance with Condition 5.A.4. The permittee

shall maintain these records in accordance with Condition 5.A.3 and shall make them available to DEQ personnel upon request.

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004)

- 5.B.16 For each emission point identified in Section 2 of this permit, the permittee shall perform regular inspections and/or maintenance each week or more often if necessary to maintain proper operation of all equipment. Records of the inspections and/or maintenance shall be kept in log form and maintained in accordance with Condition 5.A.3 and shall be made available upon request by DEQ personnel. The permittee shall submit a summarized report in accordance with Condition 5.A.4. The permittee shall also maintain sufficient equipment as is necessary to repair the pollution control equipment. (Ref.: APC-S-6, Section III.A.3.a(2))
- 5.B.17 For Emission Points AB-102, AB-202, AH-101, AH-102, AH-201, AH-202, AJ-101, and AJ-201, the permittee shall maintain records of the heat input capacity of each combustion unit and monthly records of the type, quantity, quality, and heating value (BTU/ft<sup>3</sup>) of all fuels combusted. This information shall be reported in accordance with Condition 5.A.4 and maintained in accordance with Condition 5.A.3. For natural gas only, the permittee is allowed to use analysis supplied by the natural gas supplier for the plant. (Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004)
- 5.B.18 For Emission Points AB-202, AF-103, AF-202, AH-101, AH-201, AH-202, and AJ-201, in accordance with the Monitoring Plan attached as Appendix E, the permittee shall monitor daily each combustion source’s burner characteristics and continuously monitor the Distributed Control System (DCS) of the air to fuel ratio. A deviation will be defined as a 3-hour period during which the DCS of the air to fuel ratio is inoperative, which will trigger prompt corrective action. These deviations, including any corrective action taken, shall be maintained in a log form in accordance with Condition 5.A.3. A summarized report shall be submitted in accordance with Condition 5.A.4 and shall be made available to DEQ personnel upon request.

The permittee shall determine the 3-hour rolling average hourly PM, NO<sub>x</sub>, and CO emission rate (lbs./hr) and the consecutive 12-month emission total (ton/year) for each combustion unit, based upon the collected data from the monitoring performed above and other available information. If this data results in any

deviations from the permitted limits, the permittee shall initiate prompt corrective action and report the deviations in accordance with Condition 5.A.5. The permittee shall maintain records documenting all calculations, data used in the calculations, a description of the method(s) used to determine the emission rates, the heat input capacity for each unit, and the total quantity of each fuel combusted. This information shall be maintained in log form in accordance with Condition 5.A.3, submitted in accordance with Condition 5.A.4, and made available upon request by DEQ personnel.

Additionally, the permittee shall conduct a test of the stack gas on a semiannual basis using a portable emissions analyzer for nitrogen oxides, and carbon monoxide. The analyzers shall be maintained, calibrated, and operated in accordance with the manufacturer's recommendations and the EPA's Conditional Test Methods, such as method CTM-034. These sampling results shall be summarized into a report, and the report shall be submitted in accordance with Condition 5.A.4. The permittee shall maintain this information in accordance with Condition 5.A.3 and shall keep a copy of the manufacturer's operating manual for the portable emissions analyzer on site.

For Emission Point AF-103, and AF-202, the source, in complying with Condition 5.B.5, will not be required to perform the elements of this condition related to NO<sub>x</sub> emissions.

(Ref.: APC-S-6, Section III.A.3.a(2), the "Retrospective" Federally Enforceable Permit to Construct issued on June 8, 2004, and the "Sustainable Growth" Federally Enforceable Permit to Construct issued June 8, 2004)

5.B.19 For Emission Point AH-106, the permittee shall inspect the storage vessel's condition monthly and maintain records of these inspections, as well as the type of volatile organic liquid stored, the maximum true vapor pressure, the dimensions of the storage vessel, the storage capacity of the storage vessel, and the quantity stored and used. This data shall be maintained on site in log form in accordance with Condition 5.A.3, submitted in accordance with Condition 5.A.4, and be made available upon request by DEQ personnel. (Ref.: APC-S-6, Section III.A.3.a(2), the "Retrospective" Federally Enforceable Permit to Construct issued on June 8, 2004, and the "Sustainable Growth" Federally Enforceable Permit to Construct issued June 8, 2004)

5.B.20 For Emission Points AC-101, and AC-201, the permittee shall continuously monitor and record the scrubber or cyclone flow, pressure differential, and pH. For Emission Point AH-107, the permittee shall monitor and record on a weekly basis the scrubber flow and pH. .

The permittee shall document the average scrubber pressure differential during the

performance of the most recent compliance test for PM emissions where compliance was demonstrated. An excursion will be defined as a 3-hour rolling average where the pressure differential is not within 90% of this average value.

The permittee shall document the average scrubber recirculation rate (gpm) during the performance of the most recent compliance test for PM emissions where compliance was demonstrated. An excursion will be defined as a 3-hour rolling average where the scrubber recirculation rate is not within 80% of this average value.

The permittee shall document the average pH during the performance of the most recent compliance test for HCl and Cl<sub>2</sub> emissions where compliance was demonstrated. An excursion will be defined as a 3-hour rolling average where the pH is not within 80% of this average value.

The permittee shall maintain a log for any excursions from these parametric monitoring ranges described in this condition. Whenever an excursion occurs, the permittee shall take prompt corrective action to get the process operating within the parametric monitoring range or value. These excursions shall be maintained in log form in accordance with Condition 5.A.3 and shall be made available upon request from DEQ personnel. A summarized report of this data shall be submitted in accordance with Condition 5.A.4.

(Ref.: APC-S-6, Section III.A.3.a(2), the "Retrospective" Federally Enforceable Permit to Construct issued on June 8, 2004, and the "Sustainable Growth" Federally Enforceable Permit to Construct issued June 8, 2004)

- 5.B.21 For Emission Points AB-102, AB-109, AC-102, AC-202, AG-101, and AJ-101, the permittee shall continuously monitor and record the scrubber flow and pressure differential to assure compliance with the PM and Opacity limitations. Additionally, for Emission Points AC-102, AC-202, and AG-101, the monitored parameters will be used to assure compliance with the HCl and Chlorine limitations.

The permittee shall document the average scrubber pressure differential during the performance of the most recent compliance test for PM emissions where compliance was demonstrated. An excursion will be defined as a 3-hour rolling average where the scrubber pressure differential is not within 90% of this average value.

The permittee shall document the average scrubber recirculation rate (gpm) during performance of the most recent compliance test for PM emissions where compliance was demonstrated. An excursion will be defined as a 3-hour rolling average where the scrubber recirculation rate is not within 80% of this average

value.

The permittee shall maintain a log for any excursions from these parametric monitoring ranges or values described in this condition. Whenever an excursion occurs, the permittee shall take prompt corrective action to get the process operating within the parametric monitoring range or value. These excursions shall be maintained in log form in accordance with Condition 5.A.3 and shall be made available upon request from DEQ personnel. A summarized report of this data shall be submitted in accordance with Condition 5.A.4.

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004)

5.B.22 For Emission Point AH-204, the permittee shall document and maintain readily accessible records of the following information for each calendar day:

- (a) The maximum hourly PM emission rate in lbs./hr and consecutive 12-month PM emission total in ton/year.
- (b) The calculations, data, and a description of the method(s) used to determine the PM data and emission rate.

These records shall be maintained in log form in accordance with Condition 5.A.3 and shall be made available upon request by DEQ personnel. A summarized report shall be submitted in accordance with Condition 5.A.4. (Ref.: APC-S-6, Section III.A.3.a(2) and the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004)

5.B.23 For each Emission Point AC-101, and AC-201, the permittee shall demonstrate compliance with Sulfuric Acid Mist emission limitations by performing a stack test in accordance with EPA Reference Method 8 within 180 days of certification of construction for the modified emission unit as required by the “TRI Project” Federally Enforceable Permit to Construct and within 24 months of the previous testing, thereafter. The permittee shall submit said test report within 60 days of performance of the test. For the purpose of compliance demonstration, the permittee shall operate the sources within 20% of their maximum rated capacity or at a rate identified in the pretest conference.

If the permittee plans to use a test method, procedure, or operating condition that differs from the requirements of this permit herein, then a pretest conference at least thirty (30) days prior to the scheduled test date is needed to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ must be

notified prior to the scheduled test date. At least TEN (10) DAYS notice should be given so that an observer may be scheduled to witness the test(s).

(Ref.: APC-S-6, Section III.A.3.a(2) and the “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

5.B.24 For Emission Point AL-112, the permittee shall maintain sufficient and accessible records for documenting the following:

- (a) The identification of and the total quantity (gallons) of each cleaning solvent, additive, or other VOC- or HAP-containing material used on a monthly basis and in any consecutive 12-month period.
- (b) The VOC and HAP content(s) of each solvent, additive, or other VOC- or HAP-containing material used. A description of the method used to determine the VOC and HAP content shall accompany this data.
- (c) The density of each solvent, additive, or other VOC- or HAP-containing material used, unless materials are measured in pounds.
- (d) The date and duration in hours that the equipment using the solvent, additive, or other VOC- or HAP-containing material is operated and actually uses the VOC- or HAP-containing material, for each month.
- (e) The calculations, data, and a description of the method(s) used to determine the VOC data and the VOC emission rate.

The permittee may use data supplied by the manufacturer or an analysis of VOC and HAP content by EPA Test Method 24, 40 CFR Part 60, Appendix A. The permittee shall maintain these records in accordance with Condition 5.A.3 and shall report them to DEQ in accordance with Conditions 5.C.5 and 5.A.4. (Ref.: the Federally Enforceable Permits to Construct issued November 2, 2001, and March 1, 2002)

5.B.25 For each Emission Point AC-101, and AC-201, the permittee shall demonstrate compliance with PM<sub>10</sub> emission limitations by performing a stack test in accordance with EPA Reference Method 201 or 201A in conjunction with Test Method 202 or an DEQ approved alternative within 180 days of certification of construction for the modified emission unit as required by the “TRI Project” Federally Enforceable Permit to Construct and within 24 months of the previous testing, thereafter. The permittee shall submit said test report within 60 days of performance of the test. For the purpose of compliance demonstration, the



permittee shall operate the sources within 20% of their maximum rated capacity or at a rate identified in the pretest conference.

If the permittee plans to use a test method, procedure, or operating condition that differs from the requirements of this permit herein, then a pretest conference at least thirty (30) days prior to the scheduled test date is needed to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ must be notified prior to the scheduled test date. At least TEN (10) DAYS notice should be given so that an observer may be scheduled to witness the test(s).

(Ref.: APC-S-6, Section III.A.3.a(2) and the “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

- 5.B.26 For Emission Points AF-101A and AF-101B, the permittee shall maintain records, including supporting data and calculations, reflecting the average quarterly sulfur dioxide (SO<sub>2</sub>) emission rate in pounds per million BTU heat input for each emission point. Data from coal analyses may be used. Furthermore, the permittee shall maintain records reflecting each operating day the SO<sub>2</sub> emission rates are in excess of the permitted limitations and an explanation and/or description of the corrective action or preventive measures taken to prevent recurrences.

The permittee shall report any deviation in accordance with Condition 5.A.5. Corrective action may include a requirement for additional stack testing or more frequent monitoring or could trigger implementation of a corrective action plan. This information shall be summarized in a report and submitted each calendar quarter, postmarked no later than 30 days following the end of the quarter. This information shall be retained on site in accordance with Condition 5.A.3 and shall be made available upon request by DEQ personnel. (Ref.: APC-S-6, Section III.A.3.a(2))

- 5.B.27 For Emission Points AM-105 and AM-111, the permittee shall maintain records documenting the following:

- (a) The type of blasting material used;
- (b) The daily amount and the cumulative total of the blasting material used;
- (c) A daily operation log detailing the time and the cumulative total hours blasting was performed;
- (d) The calculated daily hourly particulate matter (PM) and PM<sub>10</sub> emission rate in units of lbs./hr and the 12-month rolling total PM and PM<sub>10</sub> emission rate in ton/year; and

- (e) The supporting calculations, data, and a description of the method(s) used to determine the PM and PM<sub>10</sub> emission rate.

This information shall be retained on site in accordance with Condition 5.A.3 and shall be made available upon request by DEQ personnel. A summarized report of this information shall be submitted in accordance with Condition 5.A.4. (Ref.: APC-S-6, Section III.A.3.a(2) and the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004)

5.B.28 For Emission Points AJ-101, AJ-201 and AL-105, the permittee shall maintain sufficient records documenting the following:

- (a) Each additive used for each emission point at this stage of the process;
- (b) Material Safety Data Sheets for each additive used;
- (c) Total of each additive used (gallons);
- (d) The VOC and HAP content of each additive used or as applied;
- (e) The maximum 8-hour VOC emission rate in lbs./hr and the consecutive 12-month VOC emission rate in tons/year;
- (f) The date and duration of each additive campaign; and
- (g) All supporting information, including but not limited to calculations, data, and a description of the method(s) used to determine the VOC and HAP emission rate.

The permittee may use data supplied by the manufacturer or an analysis of VOC content by EPA Test Method 24, 40 CFR Part 60, Appendix A.

The permittee shall submit a summarized report providing the information required to be documented in (a) through (g) above in accordance with Condition 5.A.4. These records shall be maintained in log form in accordance with Condition 5.A.3 and shall be made available upon request by DEQ personnel.

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004, and the “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

5.B.29 For Emission Points AB-109, AB-201, AB-202, AB-203, AB-204, AC-202, AH-204, AJ-201, AK-105, AK-106, AL-105, AL-106, AL-109, and AL-110, the permittee shall maintain sufficient records relative to the parametric monitoring required within this permit for the control device and production rate data for the emission unit so as to document that the control device was operating at all times when the emission unit was operating. These records shall be maintained in log form in accordance with Condition 5.A.3 and shall be submitted in accordance with Condition 5.A.4. The records shall be made available upon request by DEQ personnel. (Ref.: Title V Operating Permit issued May 9, 2006 and modified August 11, 2009)

5.B.30 For Emission Points AC-101 and AC-201, the permittee shall continuously monitor the recirculation flow and pH of the scrubbing medium using pH sensors to show compliance with the SO<sub>2</sub> emission limits. An excursion is defined as a 3-hour rolling average of the last stage scrubber's recirculation flow less than 80% of the average from the most recent SO<sub>2</sub> performance stack test or a 3-hour rolling average of the scrubber pH less than 5. Records of this monitoring shall be maintained in log form and shall be made available upon request by DEQ personnel. A summarized report of this monitoring shall be maintained in accordance with Condition 5.A.3 and shall be submitted in accordance with Condition 5.A.4. A copy the Monitoring Plan upon completion of the "TRI Project" is attached to this document as Appendix F. The permittee shall use this monitoring data to report sulfur dioxide emission rates as required by Condition 5.B.14. (Ref.: APC-S-6, Section III.A.3.a(2) and the "Retrospective" Federally Enforceable Permit to Construct issued on June 8, 2004)

5.B.31 For Emission Point AC-202, the permittee shall maintain records of the daily hours of operation and the cumulative total hours of operation, the maximum daily hourly PM emission rate in lbs./hr, and the consecutive 12-month PM emission total in ton/year.

The permittee shall submit reports in accordance with Condition 5.A.4 providing the following information:

- (a) The maximum daily hours of operation and the consecutive 12-month total;
- (b) The calculated maximum daily hourly PM emission rate in lbs./hr and the consecutive 12-month emission total in ton/year; and
- (c) Calculations, data, and a description of the method(s) used to determine the PM data and emission rate.

This data shall be maintained in accordance with Condition 5.A.3 and shall be

made available upon request by DEQ personnel. (Ref.: APC-S-6, Section III.A.3.a(2) and the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004)

5.B.32 For Emission Points AF-103, and AF-202, the permittee shall monitor and maintain records of the type, quantity, and heating value (BTU/ft<sup>3</sup>) of each fuel combusted. For landfill gas, the permittee shall perform at least one analysis each calendar year to determine the quality (contents) of the landfill gas. The permittee shall maintain these records daily and in accordance with Condition 5.A.3 and shall report the monitoring semiannually. (Ref.: APC-S-6, Section III.A.3.a(2), 40 CFR 60.49b(d), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004)

5.B.33 For Emission Point AH-203, the permittee shall document and maintain readily accessible records of the following information for each operating day:

- (a) The daily hours of additive storage bin loading and the consecutive 12-month total;
- (b) The maximum hourly PM emission rate in lbs./hr and the consecutive 12-month PM emission total in ton/year; and
- (c) Calculations, data, and a description of the method(s) used to determine PM data and emission rates.

A report of this data is to be submitted to DEQ in accordance with Condition 5.A.4. This data shall be maintained in accordance with Condition 5.A.3 and shall be made available upon request by DEQ personnel. (Ref.: APC-S-6, Section III.A.3.a(2) and the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004)

5.B.34 For Emission Point AA-001, the permittee shall maintain and comply with the plan for monitoring Line 1 and Line 2 operating conditions to demonstrate compliance with the particulate matter (PM), chlorine (Cl<sub>2</sub>), and hydrogen chloride (HCl) emission limitations in this permit. This plan is attached as Appendix I. This Operations Monitoring Plan shall include, but is not limited to, the following information:

- (a) Identify and list all fugitive emission sources within the plant, especially those sources emitting PM, Cl<sub>2</sub>, and HCl.

- (b) Identify and describe the specific operating conditions/parameters to be monitored for the sources identified in (a) above.
- (c) Identify and/or describe the relationship between the monitored operating conditions/parameters and the monitored pollutants and their emission rates.
- (d) If applicable, describe and identify all measurement techniques used and list the sampling locations.
- (e) Provide a basis for all calculations performed, the resources of any prevalent data used in the calculations, and/or the methods used to determine the fugitive emission rates, specifically for PM, Cl<sub>2</sub>, and HCl.
- (f) Provide a procedure and schedule for performing weekly visual observation of the sources identified in (a) above.

Upon DEQ approval, this information shall be compiled into a report and submitted in accordance with Condition 5.A.4. All data or information pertaining to this condition shall be maintained in accordance with Condition 5.A.3 and shall be made available upon request by DEQ personnel. (Ref.: APC-S-6, Section III.A.3.a(2) and the "Retrospective" Federally Enforceable Permit to Construct issued on June 8, 2004)

- 5.B.35 The permittee shall monitor compliance with the opacity limitation for Emission Point AA-001, Plantwide Facility Fugitives, by performing weekly visual observations. If any visible emissions are observed, the permittee shall perform a Visual Emission Evaluation in accordance with EPA Reference Method 9. Should the observed visible emissions result in an exceedance of the allowable opacity limitation and/or be associated with a malfunction, upset, or otherwise an emergency (see Condition 1.23 and 1.24), the incident shall be logged and reported as a permit deviation and shall include a description of the cause of the event and the corrective action taken to prevent a reoccurrence, in accordance with Condition 5.A.4.

The permittee shall maintain records and/or a log documenting all visual observations/ tests, the nature and cause of any visible emissions, any corrective action taken to prevent or minimize the emissions, and the date and time of any visible emission observation. These records and/or log shall be maintained in accordance with Condition 5.A.3, submitted in accordance with Condition 5.A.4, and made available upon request by DEQ personnel. (Ref.: APC-S-6, Section III.A.3.a(2) and the "Retrospective" Federally Enforceable Permit to Construct issued on June 8, 2004)

- 5.B.36 Upon the satisfaction of any initial demonstration of compliance test requirement within this permit where (1) the results (the average of all runs of the test) indicate compliance with the emission limitations expressed within this permit and (2) such test results reflect actual emission of less than or equal to 25% of the permitted limit, the permittee may request a waiver of the biennial demonstration of compliance test for that pollutant(s) for the life of the permit term. The request for a waiver shall include a justification that the emission unit and control device(s) (if applicable) continues to operate in a manner similar to that of when compliance was demonstrated. This request for a waiver shall be submitted no later than 180 days prior to the due date for the subsequent test. A request for a waiver is only valid for the life of this permit. (Ref.: Title V Operating Permit issued May 9, 2006 and modified August 11, 2009)
- 5.B.37 For Emission Point AD-151, the permittee must comply with NSPS Subpart IIII by purchasing an engine certified to the emission standards in §60.4204(b) for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications. (Ref.: 40 CFR 60.4211(c))
- 5.B.38 For Emission Points AC-101, and AC-201, the permittee shall demonstrate compliance with the COS emission limitations in accordance with EPA Reference Method 15 or 15A and submit said test report within 60 days of the date the test is performed.

After the initial demonstration of compliance with this condition, future demonstration of compliance may be performed with the Relative Accuracy Test Audits (See Condition 5.B.7) performed annually for continuous emission monitors. For the purpose of compliance demonstration, the permittee shall operate the sources within 20% of their maximum rates capacity or at another rate identified in the pretest conference.

If the permittee plans to use a test method, procedure, or operating condition that differs from the requirements of this permit herein, then a pretest conference at least thirty (30) days prior to the scheduled test date is needed to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ must be notified prior to the scheduled test date. At least TEN (10) DAYS notice should be given so that an observer may be scheduled to witness the test(s).

(Ref.: APC-S-6, Section III.A.3.a(2), the "Retrospective" Federally Enforceable Permit to Construct issued on June 8, 2004, and the "Sustainable Growth" Federally Enforceable Permit to Construct issued June 8, 2004, and the "TRI Project" Federally Enforceable Permit to Construct issued November 8, 2005.)

5.B.39 For Emission Points AB-201, AB-203, AD-103, AK-101 through AK-107, AK-110, AL-101 through AL-107, AL-109, and AL-110, the permittee shall document and maintain readily-accessible records of the following information for each operating day:

- (a) The maximum hourly PM emission rate in lbs./hr and the consecutive 12-month PM emission total in ton/year.
- (b) The calculations, data, and a description of the method(s) used to determine the PM data and emission rate.

These records shall be maintained in log form in accordance with Condition 5.A.3 and shall be made available upon request by DEQ personnel. A summarized report shall be submitted in accordance with Condition 5.A.4. (Ref.: APC-S-6, Section III.A.3.a(2) and the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004)

5.B.40 For Emission Point AC-101 and AC-201, the permittee shall continuously monitor the pH of the scrubber medium using pH sensors. An excursion is defined as a 3-hour rolling average of the scrubber pH less than 6.0 for chlorine and less than 2.0 for hydrogen chloride. Records of this monitoring shall be maintained in log form and shall be made available upon request by DEQ personnel. A summarized report of this monitoring shall be maintained in accordance with Condition 5.A.3 and submitted in accordance with Condition 5.A.4. A copy of this Compliance Assurance Monitoring (CAM) Plan is attached to this document as Appendix D. (Ref.: APC-S-6, Section III.A.3(2) and 40 CFR 64.3(a))

5.B.41 For Emission Point AF-202, the permittee shall record and maintain records for each day the rental, or temporary, boiler is operated. These records shall include the following information:

- (a) The number of hours the rental, or temporary, boiler operated each day;
- (b) The permanent boiler that was inoperative that day, including the reason for the downtime and duration of the downtime in hours; and
- (c) The total hours the rental, or temporary, boiler operated for each consecutive 12-month period.

These records shall be maintained in log form in accordance with Condition 5.A.3 and shall be made available upon request by DEQ personnel. A summarized report shall be submitted in accordance with Condition 5.A.4. (Ref.: APC-S-6, Section III.A.3.a(2) and the “Sustainable Growth” Federally Enforceable Permit to

Construct issued June 8, 2004)

5.B.42 For Emission Points AC-101 and AC-201, the permittee shall continuously measure scrubber flow using a flow meter. When the outlet scrubber is off-line an excursion is defined as a 3-hour rolling average scrubber flow value less than 80% of the average from the most recent wet gas scrubber compliance test for chlorine and hydrogen chloride. When the outlet separator scrubber is on-line, an excursion is defined as a simultaneous 3-hour rolling average where the outlet separator scrubber flow value and a wet gas scrubber flow rate value is less than 80% of their respective averages from the most recent scrubber hydrogen chloride and chlorine compliance test. An excursion shall trigger an inspection and corrective action, if required, for the scrubber and associated equipment. Records of this monitoring shall be kept in log form in accordance with Condition 5.A.3, submitted in accordance with Condition 5.A.4, and made available upon request from DEQ personnel. The data collected shall be used to show compliance with the applicable emission limits in Section 3. This condition contains provisions from the approved Compliance Assurance Monitoring (CAM) Plan, a copy of which can be found attached to this permit as Appendix D. (Ref.: APC-S-6, Section III.A.3.a(2) and 40 CFR Part 64.3(a))

5.B.43 For Emission Points AB-106, AB-206, and AF-143, the permittee shall maintain records of daily hours of operation and cumulative total hours of operation for each calendar year.

Beginning June 15, 2007, for Emission Points AB-106, AB-206, and AF-143, the permittee shall monitor and record all operating hours that are not considered emergency use under 40 CFR Part 63, Subpart ZZZZ.

The permittee shall maintain these records for a period of five (5) years in accordance with Condition 5.A.3 and shall submit these records in accordance with Condition 5.A.4. (Ref.: APC-S-6, Section III.A.3.a(2) and APC-S-6, Section III.A.3.b(2))

5.B.44 For Emission Points AD-139, AD-150, AD-152, AD-153, AM-101, AM-102, and AM-103, within 180 days after May 3, 2013, the permittee shall conduct an initial performance test for emissions of CO in accordance to the provisions of §63.7(a)(2) and the applicable testing requirements in Table 4 of Subpart ZZZZ.

The permittee is not required to conduct the above initial performance test on a unit for which a performance test has been previously conducted and meets all of the conditions described in §63.6612(b)(1)-(4). (Ref.: 40 CFR 63.6612(a) and (b))



- 5.B.45 Beginning May 3, 2013, for Emission Points AD-105, AD-106, AD-107, AD-132, AF-151, and AM-113, the permittee must operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (Ref.: 40 CFR 63.6625(e), 63.6640(a), and Table 6 to Subpart ZZZZ)
- 5.B.46 Beginning May 3, 2013, for Emission Points AF-151 and AM-113, the permittee must install a non-resettable hour meter if one is not already installed. (Ref.: 40 CFR 63.6625(f))
- 5.B.47 Beginning May 3, 2013, for Emission Points AD-105, AD-106, AD-107, AD-132, AF-151, and AM-113, the permittee may utilize an oil analysis program in order to extend the specified oil change requirement from Condition 3.B.28 and 3.B.29 provided the analysis analyzes the parameters identified in §63.6625(i). (Ref.: 40 CFR 63.6625(i))
- 5.B.48 Beginning May 3, 2013, for Emission Points AD-105, AD-106, AD-107, AD-132, AD-139, AD-150, AD-152, AD-153, AF-151, AM-101, AM-102, AM-103, and AM-113, the permittee must keep records described in paragraphs §63.6655(a)(1)-(5), as applicable. (Ref.: 40 CFR 63.6655(a))
- 5.B.49 Beginning May 3, 2013, for Emission Points AD-105, AD-106, AD-107, AD-132, AF-151, and AM-113, the permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE in accordance to the maintenance plan required by Condition 5.B.45. (Ref.: 40 CFR 63.6655(e))
- 5.B.50 Beginning May 3, 2013, for Emission Points AF-151 and AM-113, the permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the event as an emergency, and how many hours are spent for non-emergency operation. (Ref.: 40 CFR 63.6655(f))
- 5.B.51 For Emission Points AC-101, AC-106, AC-201, and AC-206, the permittee shall monitor and maintain records of the amount of natural gas combusted during each day and which emission points were operating during that period. Further the permittee shall maintain these records in accordance with Condition 5.A.3 and shall submit these records in accordance with Condition 5.A.4. (Ref.: APC-S-6, Section III.A.3.a(2), 40 CFR 60.48c(g)&(j), and the "TRI Project" Federally Enforceable Permit to Construct issued November 8, 2005.)

- 5.B.52 For Emission Points AB-202, and AJ-201, the permittee shall on or before November 7, 2006, demonstrate compliance with the particulate matter emission limitation and opacity limitation by performance of a stack test in accordance with EPA Reference Method 5 and EPA Reference Method 9, respectively and/or in accordance with Condition 5.A.6. The sampling time and volume for each said test run shall be at least 2 hours and 1.70 dscm. A copy of the results of said test shall be submitted to DEQ within 60 days of performance of said test. Furthermore, the permittee shall demonstrate compliance within 24 months of the previous testing, thereafter. The permittee may request in writing to DEQ that future demonstration of compliance being coordinated with same frequency of other biennial testing required within this permit. (Ref.: 40 CFR Part 60.736(b)1& 2 , APC-S-6, Section III.A.3.a and Agreed Order 5126-06.)

A stack test protocol shall be submitted at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ must be notified prior to the scheduled test date. At least TEN (10) DAYS notice should be given so that an observer may be scheduled to witness the test(s).

- 5.B.53 For Emission Point AB-109, the permittee shall for periods of chlorinator swaps or chlorinator start-up (Chlorination Reactor Light-off Mode) or for periods of chlorinator idling (Chlorination Reactor Process Idle Mode) maintain records of the daily hours of operation and the cumulative total hours of operation for each operational mode. Further the permittee shall maintain a sulfur analysis reflecting the sulfur content of the petroleum coke and the amount of petroleum coke used for the Chlorination Reactor Light-off Mode. The permittee may use a supplier's analysis for the purposes of this requirement but the analysis must be done semi-annually. The permittee shall use process data and other related process data to calculate the sulfur dioxide, carbon monoxide, and carbonyl sulfide emissions (lb/hr, tons per year, and lb/MMBtu (SO<sub>2</sub> only) emitted during the Chlorination Reactor Light-off Mode and the Chlorination Reactor Process Idle Mode.

The permittee shall submit summarized reports of this data in accordance with Condition 5.A.4. This data shall be maintained in accordance with Condition 5.A.3 and shall be made available upon request by DEQ personnel. (Ref.: APC-S-6, Section III.A.3.a(2) and Title V Operating Permit issued May 9, 2006, and modified August 11, 2009)

- 5.B.54 For Emission Points AH-206 and AH-207, the permittee shall keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tanks are less than 4.0 psia and not required to be controlled under Subpart EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to §63.10(b)(1), including records

stored in electronic form in a separate location.

(Ref.: 40 CFR 63.2343(b)(3))

5.B.55 For Emission Points AB-106, AB-206, and AF-143, the permittee shall install a non-resettable hour meter prior to startup of the engine. (Ref.: 40 CFR 60.4209(a))

5.B.56 For Emission Points AB-106, AB-206, AD-104, AD-151, and AF-143, the permittee shall operate and maintain the stationary CI internal combustion engine according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you. (Ref.: 40 CFR 60.4211(a))

5.B.57 For Emission Points AB-106, AB-206, AD-104, and AF-143, the permittee shall demonstrate compliance with the emission standards by keeping records of engine manufacturer data indicating compliance with the standards. (Ref.: 40 CFR 60.4211(b)(3))

5.B.58 Beginning May 3, 2013, for Emission Points AD-105, AD-106, AD-107, AD-132, AD-139, AD-150, AD-152, AD-153, AF-151, AM-101, AM-102, AM-103, and AM-113, the permittee must be maintain records in compliance with §63.6660. The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. (Ref.: 40 CFR 63.6660)

### C. Specific Reporting Requirements

5.C.1 For Emission Points AC-101 and AC-201, the permittee shall demonstrate compliance with the emission limitations for the following pollutants by stack testing in accordance with the specified methods and submittal of the stack test report(s).

Carbon Monoxide: Continuous Emission Monitoring System pursuant to the Emission Monitoring Requirements specified in Section 5.B.

Carbonyl Sulfide: Continuous Emission Monitoring System pursuant to the Emission Monitoring Requirements specified in Section 5.B.

The permittee shall submit a report containing the following information:

- (a) The SO<sub>2</sub> emission rate for each hour and the consecutive 12-month SO<sub>2</sub> emission total in tons per year.

- (b) The CO emission rate for each hour, the daily 8-hour CO emission rate in pounds per hour, and the consecutive 12-month CO emission rate in tons per year.
- (c) The daily COS emission rate in pounds per day and the consecutive 12-month COS emission rate in tons per year.
- (d) The daily hours of operation and the cumulative total.
- (e) Any reports required by 40 CFR 60.7 and 60.13; 40 CFR Part 60, Appendix B; and 40 CFR Part 60, Appendix F.
- (f) Any period (date and time) during which a continuous monitoring system is inoperative.
- (g) Each operating day the SO<sub>2</sub>, CO, or COS emission rates are in excess of the SO<sub>2</sub>, CO, or COS emission limitations referenced in Section 3 of this permit; the magnitude of the excess emissions; the reason for the excess emissions; the total duration of excess emissions; and a description of the corrective action and preventive measures adopted. The permittee shall report within five (5) working days any deviations from the permit requirements, including those attributable to upsets, and the report shall include the cause of such deviations, the magnitude of the excess emissions, the total duration of excess emissions, and any corrective actions and/or preventive measures taken. Corrective actions may include requirements for additional stack testing or more frequent monitoring or could trigger implementation of a corrective action plan;
- (h) The amount of time, in hours that the thermal oxidizer is bypassed each month.

1-hour averages should be computed from four (4) or more data points equally spaced over a 1-hour period. A 1-hour period means any 60-minute period commencing on the hour. Data recording periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed.

An 8-hour average shall be considered valid if at least 75 percent of the hourly averages for the 8-hour period are available. In the event that only six (6) or seven (7) hourly averages are available, the 8-hour average shall be computed on the basis of the hours available using six (6) or seven (7) as the divisor.

This report shall be submitted to DEQ in accordance with Condition 5.A.4 and shall be made available upon request by DEQ personnel. The data used for this report shall be retained in accordance with Condition 5.A.3.

(Ref.: APC-S-6, Section III.A.3.a(2), the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004 and “TRI Project” Federally Enforceable Permit to Construct issued November 8, 2005.)

5.C.2 For Emission Points AF-103, and AF-202, the permittee shall submit an excess emissions and monitoring systems performance report and/ a summary report form to the DEQ semiannually, per 40 CFR 60.7(c) and 60.49b(h). All reports shall be postmarked by the 30<sup>th</sup> day following the end of each six-month period. In lieu of submitting the written reports, the permittee may submit electronic quarterly reports no later than 30-days after the end of the calendar quarter, per 40 CFR 60.49b(v). The reports shall contain the information required by 40 CFR 60.49b(g) in addition to the following information:

- (a) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions.
- (b) The process operating time during the reporting period.
- (c) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunctions (if known), the corrective action taken, or the preventive measures adopted.
- (d) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs and adjustments.
- (e) When no excess emissions have occurred or the continuous monitoring system(s) has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(Ref. 40 CFR 60.7(c), 40 CFR 60.49b, the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004)

5.C.3 For Emission Points AF-101A and AF-101B, the permittee shall report once per calendar quarter on the following continuous monitor data:

- (a) The maximum 6-minute opacity average during the quarter.

- (b) The dates, times, and average opacity for each 6-minute period during which the average exceed 40 percent opacity.

The permittee shall also provide each explanation, as appropriate, to define the possible cause of any emission limit exceedance. (Ref.: State Operating Permit issued October 23, 1983)

5.C.4 The permittee shall report above and beyond the requirements addressed in Conditions 1.23 and 1.24, by telephone, all abnormal releases or spills of chlorine, titanium tetrachloride, or other potentially hazardous materials which cause or may cause off-plant effects, and all process upsets or control equipment malfunctions which cause or may cause off-plant effects. Reporting shall be as follows:

- (a) For incidents of less than 30 minutes duration which do not endanger public health, the permittee shall report the details of the incident during normal office hours within 24 hours after return to normal operation.
- (b) For incidents of 30 minutes or greater duration which do not endanger public health, the permittee shall report the details as soon as possible after discovery. If the incident occurs during closed office hours, it shall be reported upon commencement of business the following day.
- (c) For incidents of any duration which endanger or may endanger public health, the permittee shall report the details of the incident as soon as possible after discovery and shall do so through emergency channels, including contacting the Mississippi Emergency Management Agency (MEMA).

The details required in such reports shall include, but are not limited to, the type, time, date, and duration of air emissions from the incident; the approximate quantity or rate of materials involved; the method of correction and cleanup; the current status of correction and cleanup; and the steps taken to prevent reoccurrence.

All reportable incidents shall be summarized in a written report once per calendar quarter. This report shall be filed in addition to any written incident reports which may be required on a case-by-case basis. For periods during which no reportable incidents occurred, a negative declaration shall be files.

(Ref.: State Operating Permit issued August 25, 1987, the “Retrospective” Federally Enforceable Permit to Construct issued on June 8, 2004, and the “Sustainable Growth” Federally Enforceable Permit to Construct issued June 8, 2004)

- 5.C.5 For Emission Point AL-112, the permittee shall submit reports in accordance with Condition 5.A.4 providing the following:
- (a) Identification of each solvent, additive, or other VOC- or HAP-containing material used.
  - (b) The VOC or HAP content(s) of each solvent, additive, or other VOC- or HAP-containing material used.
  - (c) The total quantity of each solvent, additive, or other VOC- or HAP-containing material used in any consecutive 12-month period.
  - (d) The total VOC emission rate, the emission rate of each individual HAP, and the total HAP emission rate in lbs./hr and ton/year for each consecutive 12-month period.

(Ref.: Federally Enforceable Permit to Construct issued November 2, 2001 and March 1, 2002)

- 5.C.6 Beginning May 3, 2013, for Emission Points AD-105, AD-106, AD-107, AD-132, AD-139, AD-150, AD-152, AD-153, AF-151, AM-101, AM-102, AM-103, and AM-113, the permittee must report each instance in which the permittee did not meet each emission limitation or operating limitation in Table 2c of 40 CFR Part 63, Subpart ZZZZ. These instances are deviations from the emission and operating limitations in Subpart ZZZZ and must be reported according to the requirements in §63.6650. Also, the permittee must report each instance in which the requirements of the applicable General Provisions of Subpart A, as identified in Table 8 to Subpart ZZZZ, were not met. (40 CFR 63.6640(b) and (d))
- 5.C.7 Beginning May 3, 2013, for Emission Points AD-139, AD-150, AD-152, AD-153, AM-101, AM-102, and AM-103, the permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1). The permittee must also submit a Notification of Compliance Status according to §63.9(h)(2)(ii), including the performance test results, before the close of business on the 60<sup>th</sup> day following the completion of the performance test according to §63.10(d)(2).
- 5.C.8 Beginning May 3, 2013, for Emission Points AD-105, AD-106, AD-107, AD-132, AD-139, AD-150, AD-152, AD-153, AF-151, AM-101, AM-102, and AM-113, the permittee must comply with the semiannual reporting requirements in §63.6650 and Table 7 to Subpart ZZZZ. (Ref.: 40 CFR 63.6650(a), (b), and (f))





**SECTION 6. ALTERNATIVE OPERATING SCENARIOS**

6.1 None permitted.



## SECTION 7. TITLE VI REQUIREMENTS

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

- 7.1 If the permittee stores or transports class I or class II substances, the permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
- (a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if being introduced into interstate commerce pursuant to § 82.106.
  - (b) The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
  - (c) The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
  - (d) No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
- 7.2 If the permittee performs any of the activities described below, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - (b) Equipment used during the maintenance, service, repair, or disposal of appliance must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
  - (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - (d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the recordkeeping requirements pursuant to § 82.166. ("MVAC - like appliance" is defined at § 82.152.)
  - (e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

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

- 7.3 If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 7.4 If the permittee performs a service on motor (fleet) vehicles and if this service involves an ozone-depleting substance (refrigerant) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

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

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

# APPENDIX A

## List of Abbreviations Used In this Permit

APC-S-1	Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants
APC-S-2	Permit Regulations for the Construction and/or Operation of Air Emissions Equipment
APC-S-3	Regulations for the Prevention of Air Pollution Emergency Episodes
APC-S-4	Ambient Air Quality Standards
APC-S-5	Regulations for the Prevention of Significant Deterioration of Air Quality
APC-S-6	Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act
APC-S-7	Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act
BACT	Best Available Control Technology
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
NMVOG	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 $\Phi$ m 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
CI	Compression Ignition
RICE	Reciprocating Internal Combustion Engine



# **APPENDIX B**

**40 CFR 82**

**PROTECTION OF STRATOSPHERIC OZONE**





# **APPENDIX C**

**APPENDIX RESERVED**



# **APPENDIX D**

**DUPONT'S COMPLIANCE ASSURANCE MONITORING PLAN FOR LARGE POLLUTION SPECIFIC EMISSION UNITS IMPACTED BY THE "SUSTAINABLE GROWHT" PSD PERMIT TO CONSTRUCT AND TITLE V MONITORING PLAN**



# **APPENDIX E**

**FUEL GAS COMBUSTION (NO<sub>x</sub> AND CO) MONITORING PLAN  
(Emission Points AB-202, AF-103, AH-101, AH-201, and AJ-201)**

# **APPENDIX F**

**SULFUR DIOXIDE MONITORING PLAN  
(Emission Points AC-101 and AC-201 only)**

# **APPENDIX G**

**40 CFR PART 63, SUBPART ZZZZ**

**NATIONAL EMISSION STANDARDS FOR RECIPROCATING INTERNAL  
COMBUSTION ENGINES (RICE)**

# **APPENDIX H**

**APPENDIX RESERVED**



# **APPENDIX I**

## **THE PIGMENT PLANT LINE 1 AND LINE 2 FUGTIVE EMISSION MONITORING PLAN**



# **APPENDIX J**

**40 CFR PART 63, SUBPART EEEE**

**NATIONAL EMISSION STANDARDS FOR ORGANIC LIQUID DISTRIBUTION  
(OLD)**



# **APPENDIX K**

**40 CFR PART 60, SUBPART III**

**STANDARDS OF PERFORMANCE FOR STATIONARY COMPRESSION IGNITION  
INTERNAL COMUBSTION ENGINES**