

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

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Eka Chemicals Inc
4374 Nashville Ferry Road East
Columbus, Mississippi
Lowndes 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:

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires:

Permit No.: 1680-00005

TABLE OF CONTENTS

SECTION 1. GENERAL CONDITIONS 3
SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES..... 13
SECTION 3. EMISSION LIMITATIONS & STANDARDS 17
SECTION 4. COMPLIANCE SCHEDULE 23
SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS 24
SECTION 6. ALTERNATIVE OPERATING SCENARIOS..... 41
SECTION 7. TITLE VI REQUIREMENTS..... 42

APPENDIX A LIST OF ABBREVIATIONS USED IN THIS PERMIT

APPENDIX B CAM PLANS

OTHER IMPORTANT DOCUMENTS:

**NEW SOURCE PERFORMANCE STANDARDS FOR INDUSTRIAL-COMMERCIAL-
INSTITUTIONAL STEAM GENERATING UNIT – 40 CFR 60, SUBPART Db**

**NEW SOURCE PERFORMANCE STANDARDS FOR SMALL INDUSTRIAL-
COMMERCIAL-INSTITUTIONAL STEAM GENERATING UNIT – 40 CFR 60,
SUBPART Dc**

**NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR
STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES – 40 CFR 63,
SUBPART ZZZZ**

**NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR
INDUSTRIAL-COMMERCIAL-INSTITUTIONAL BOILERS AND PROCESS HEATERS
– 40 CFR 63, SUBPART DDDDD**

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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

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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 judgments where such judgments 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.)

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- 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;

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- (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;

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- (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;

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- (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,

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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 2.37)
 - (1) The occurrence of an upset constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements

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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 2.34 & 2.29)
- (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

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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)

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- 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.

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SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
Fuel Combustion Sources	
AB-010	315 hp Diesel-fired HPC Emergency Fire Pump (a compression ignition (CI) reciprocating internal combustion engine (RICE)), installed in 1991.
AB-011	127.47 MMBTU/hr Natural Gas/Hydrogen-fired Steam Boiler with Low-NO _x Burners
AB-012	87 MMBTU/hr Natural Gas-fired Temporary Steam Boiler
AB-013	3 MMBTU/hr Hydrogen Preheater with Natural Gas back-up for C-85 and C-89 Dry Ends
AE-005	6.2 MMBTU/hr (613 hp) Diesel-fired Emergency Generator for the C-85 and C-89 Sodium Chlorate Plants, installed in 1984
AI-011	8.3 MMBTU/hr (1199 hp) Diesel-fired Emergency Generator for the C-91A Sodium Chlorate Plant, installed in 1991
AI-012	8.3 MMBTU/hr (1199 hp) Diesel-fired Emergency Generator for the C-91B Sodium Chlorate Plant, installed in 1991
The C-85 Sodium Chlorate Process	
AE-002	The Reaction Gas Scrubber, which controls chlorine emissions from process tanks, hydrochloric acid emissions from the hydrochloric acid storage tank (TM-106) associated with the C-85 Sodium Chlorate Process.
AE-004	Cell Gas Scrubber Vent (The Hydrogen Bell Vent located at the C-85 Sodium Chlorate Plant). Hydrogen, a byproduct from the electrolyzer cells, is sent through two scrubbers, in series, to control chlorine emissions and then to the boilers as fuel. Any hydrogen not used by the boiler is discharged through Emission Point AE-004, AE-006, and/or AE-007. Emission Point AE-006 is located at the boiler.
AE-006	Cell Gas Scrubber Vent (The Hydrogen Vent located at the Boiler House). Hydrogen, a byproduct from the electrolyzer cells, is sent through two scrubbers, in series, to control chlorine emissions and then to the boilers as fuel. Hydrogen not used by the boiler is discharged through this Emission Point AE-006, AE-007, and/or AE-004. Emission Point AE-004 is located at the C-85 Sodium Chlorate Plant.
AE-007	Hydrogen Emergency Relief Vent. Emissions are intermittent
The C-89 Sodium Chlorate Process	
AH-002	The C89 Dryer Scrubber, a venturi scrubber controlling particulate matter emissions from the C89 Fluidized Bed Dryer serving the C85 and C89 process lines and from the Silo Bin Vent at the Sodium Chlorate Bagging Station.

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Emission Point	Description
AH-003	The Reaction Gas Scrubber, which controls chlorine emissions from process tanks associated with the C-89 Sodium Chlorate Process.
The C-91 A/B Sodium Chlorate Process	
AI-001	The Sodium Chlorate Dryer associated with the C-91A Sodium Chlorate Process equipped with a Sulzer Type 3, CL401, CL402, and CL403 Wet Scrubber for control of particulate matter emissions.
AI-002	The Reaction Gas Scrubber, which controls chlorine emissions from process tanks and hydrochloric acid emissions from the hydrochloric acid storage tank (TA-602) associated with the C-91A Sodium Chlorate Process.
AI-003	The Crystallizer Table Filter Fan equipped with a Mist Eliminator 3402 Scrubber for control of particulate matter emissions from the crystallization and drying of sodium chlorate in the C-91A Sodium Chlorate Plant.
AI-006	The Loading and Handling Silo Dust Scrubber, which controls particulate matter emissions from the loading and unloading of sodium chlorate storage silos associated with the C-91A and C-91B Sodium Chlorate Process.
AI-007	The Sodium Chlorate Dryer associated with the C-91B Sodium Chlorate Process equipped with a Sulzer-Escher-WYSS CLB 401, 402, and 403 Wet Scrubber for control of particulate matter emissions.
AI-008	The Reaction Gas Scrubber, which controls chlorine emissions from process tanks and hydrochloric acid emissions from the hydrochloric acid storage tank (TB-602) associated with the C-91B Sodium Chlorate Process.
The C-89 and C-91 A/B Hydrogen Purification Process	
AG-001	The Hydrogen Cell Gas scrubber Vent located at the C-89 Sodium Chlorate Plant. Hydrogen, a byproduct from the electrolyzer cells, is sent through one of three scrubbers to remove chlorine prior to use in Boiler No. 1 and the Hydrogen Peroxide production process.
AG-002	The Hydrogen Scrubber Vent associated with the C-91A and C-91B Sodium Chlorate Processes. Hydrogen, a byproduct from the electrolyzer cells, is sent to a scrubber to remove chlorine prior to use in Boiler No. 1 and the Hydrogen Peroxide production process.
AG-003	The Hydrogen Purification System Stack located in the C-89 building. Scrubbed, or “clean”, hydrogen not discharged through AG-001 can be discharged from this vent.
AG-004	The Hydrogen Purification System Stack located in the C-15 building. Scrubbed, or “clean”, hydrogen not discharged through AG-001 can be discharged from this vent.
AG-006	The Hydrogen Purification System Stack located in the C-91A building. Scrubbed, or “clean”, hydrogen not discharged through AG-002 can be discharged from this vent.
AG-007	The Hydrogen Purification System Stack located in the boiler house. Scrubbed, or “clean”, hydrogen not discharged through AG-001 and AG-002 can be discharged from this vent.

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Emission Point	Description
AG-009	The Hydrogen Purification System Stack located in the C-15 building. The hydrogen compressor can discharge scrubbed, or “clean”, hydrogen from this vent.
AG-010	The Hydrogen Purification System Stack located in the C-15 building. Scrubbed, or “clean”, hydrogen not discharged through AG-001 and AG-002 can be discharged from this vent.
AG-011	The Hydrogen Purification System Stack located in the C-15 building. The hydrogen compressor can discharge scrubbed, or “clean”, hydrogen from this vent.
AG-012	The Hydrogen Purification System Stack located in the HPC plant. Scrubbed, or “clean”, compressed hydrogen, a raw material for HPC, can discharge from this vent.
AG-013	The Hydrogen Purification System Stack located in the HPC plant. Scrubbed, or “clean”, compressed hydrogen, a raw material for HPC, can discharge from this vent.
The Brine Plant	
AI-010	The Brine Plant Process Tanks equipped with an Indusco Scrubber for control of hydrochloric acid emissions.
The Hydrogen Peroxide (HPC) Manufacturing Process	
AJ-001	The Waterseal Tank (Eka Chemicals Reference No. 5112). VOC gases not recovered from a condenser are discharged through this tank.
AJ-002	The East Carbon Adsorption Unit (Eka Chemicals Reference No. 4401A), which controls VOC emissions from the HPC process tanks’ offgases.
AJ-003	The Center Carbon Adsorption Unit (Eka Chemicals Reference No. 4401B), which controls VOC emissions from the HPC process tanks’ offgases.
AJ-004	The West Carbon Adsorption Unit (Eka Chemicals Reference No. 4401C), which controls VOC emissions from the HPC process tanks’ offgases.
AJ-005	The Clean Solvent Storage Tank (Eka Chemicals Reference No. T-3611), 19,500 gallons, Vertical Fixed Roof. The tank is vented to one of three carbon adsorption units, AJ-002, AJ-003, and AJ-004.
AJ-006	The Used Solvent Storage Tank (Eka Chemicals Reference No. T-3612), 19,500 gallons, Vertical Fixed Roof. The tank is vented to one of three carbon adsorption units, AJ-002, AJ-003, and AJ-004.
AJ-008	The HPC Dust Collection System Baghouse, which controls particulate matter emissions from the periodic changing of regeneration material.
AJ-009	The No. 5101 Hydrogenation Column.
AJ-010	The No. 5102 Hydrogenation Column.
AJ-011	The Carbon Adsorption Unit 4 (Eka Chemicals Reference No. 4401D), which controls VOC emissions from the HPC process tanks’ offgases.

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Emission Point	Description
AJ-012	The Carbon Filter Adsorption Unit 5 (Eka Chemicals Reference No. 4401E), which controls VOC emissions from the HPC process tanks' offgases.
AJ-013	The C01A building ventilation system consisting of four (4) fans: N, S, E, and EE.
AJ-016	The WS Storage Tank (Eka Chemicals Reference No. T-5413), 75,500 gallons, Vertical Fixed Roof. The tank is vented to the carbon adsorption units, AJ-011, and AJ-012.
AJ-017	The C01B building ventilation system consisting of two (2) fans: Fan 1 and Fan 2.
AJ-020	The Petroleum Hydrocarbon Working Solution Storage Tank (Eka Chemicals Reference No. T-3613) 9,700 gallons, Vertical Fixed Roof.
Miscellaneous Air Emission Sources	
CT-001	The C-91 Cooling Tower
CT-002	The C-89 Cooling Tower
CT-003 CT-004	The HPC Cooling Towers
FE-001	Fugitive Emissions from Rock Salt Pile Unloading, 50.0 ton/hr capacity
FE-002	Fugitive Emissions from plant site

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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
AB-010 AB-013 AE-005 AI-011 AI-012	APC-S-1, Section 3.4(a)(1)	3.B.1	PM (filterable only)	0.6 lbs/MMBTU
AB-011 AB-012	APC-S-1, Section 3.4(a)(2)	3.B.2	PM (filterable only)	$E = 0.8808 * I^{0.1667}$

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Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AB-011 AB-012 AB-013	APC-S-1, Section 4.1(a)	3.B.3	SO ₂	4.8 lbs/MMBTU
Sodium Chlorate Process	APC-S-1, Section 3.6(a)	3.B.4	PM (filterable only)	E = 4.1 (p) ^{0.67}
AB-011	Federally enforceable Construction permit issued February 13, 2007, and modified January 4, 2011	3.B.5 3.B.13	NO _x	0.07 lb/MMBTU heat input (3-hr rolling average), not to exceed 8.93 lbs/hr (3-hr rolling average) and 39.1 tons/year (12-month rolling total)
			Fuel Restriction	Fuels other than natural gas and/or hydrogen are prohibited
AB-012	Federally enforceable Construction permit issued February 13, 2007, and modified January 4, 2011	3.B.5	NO _x	14.53 lbs/hr and 31.38 tpy
			Fuel Restriction	Fuel other than natural gas is prohibited
			Operational Limitation	The temporary boiler shall not operate or remain on site for more than 180 consecutive days during any period of 12 consecutive calendar months.
AE-005	Operating Permit issued November 12, 1991, and modified January 24, 2000	3.B.6	Fuel Restriction	Fuel other than No. 2 Fuel Oil or Diesel with a sulfur content ≤ 0.4% by volume is prohibited.
AI-011 AI-012	Construction Permit issued April 12, 1995	3.B.7	Fuel Restriction	Fuel other than No. 2 Fuel Oil or Diesel with a sulfur content ≤ 0.4% is prohibited.
AH-002	Pre-construction approval granted February 22, 2010, APC-S-2, Section XV.C, and Title V Operating Permit modified January 4, 2011	3.B.8	PM/PM ₁₀ (filterable only)	2.63 lb/hr and 11.5 tpy
AJ-001	Construction Permit issued September 26, 1995	3.B.9	VOC	2.42 lb/hr and 10.6 tpy
AJ-011 AJ-012			VOC	1.3 lb/hr and 4.0 tpy (Total combined VOC emission limitations from Emission Points AJ-011 and AJ-012)
AJ-002 AJ-003 AJ-004	Construction Permit issued September 25, 1990	3.B.10	VOC	1.3 lb/hr and 5.5 tpy (Total combined VOC emission limitation for all three Emission Points)

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Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AJ-008	Title V Operating Permit issued XXXXXX.	3.B.11	PM/PM ₁₀ (filterable only)	< 750 hours per year. Operating and maintain baghouse when changing regeneration material.
AJ-009	Construction Permit issued September 26, 1995, and modified July 9, 1996	3.B.12	VOC	0.525 lb/hr and 2.3 tpy
AJ-010			VOC	0.525 lb/hr and 2.3 tpy
AB-011	40 CFR 60.40b, Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	3.B.13		Applicability
AB-012	40 CFR 60.40c, Subpart Dc -- Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	3.B.14		Applicability
AB-010 AE-005 AI-011 AI-012	40 CFR 63.6590, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	3.B.15		Applicability
AB-010	40 CFR 63.6602 and Table 2c, Subpart ZZZZ	3.B.16	Maintenance Requirements	Change oil and filter every 500 hours of operation or annually; inspect air cleaner every 1,000 hours of operation or annually; and inspect all hoses and belts every 500 hours of operation or annually.
		3.B.17		Oil analysis program
AB-011 AB-013	40 CFR 63.7485, Subpart DDDDD -- National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	3.B.18		Applicability
AB-011	40 CFR 63.7500(a)(1), 63.7515(d), 63.7540(a)(10), 63.7575, and Table 3, Subpart DDDDD	3.B.19	Work Practice Standards	Conduct an annual tune-up of the boiler; one time energy assessment performed by a qualified energy assessor

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Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AB-013	40 CFR 63.7500(a)(1), 63.7500(e), 63.7515(d), 63.7540(a)(12), 63.7575, and Table 3, Subpart DDDDD	3.B.20		Conduct a biennial tune-up of the boiler; one time energy assessment performed by a qualified energy assessor
AB-011 AB-013	40 CFR 63.7500(a)(3), Subpart DDDDD	3.B.21	Good Air Pollution Control Practices	Operate and maintain in a manner consistent with safety and good air pollution control practices for minimizing emissions.
AB-011 AB-013	40 CFR 63.7500(f) and 63.7505(a), Subpart DDDDD	3.B.22		Standards apply at all times

3.B.1 For Emission Points AB-010, AB-013, AE-005, AI-011, and AI-012, the maximum permissible particulate matter emissions from 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.2 For Emission Points AB-011 and AB-012, the maximum permissible particulate matter emissions from 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.3 For Emission Points AB-010, AB-011, AB-012, and AB-013, 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.4 For the Sodium Chlorate Process, the permittee shall not cause, permit, or allow the emission of particulate matter in total quantities in any one hour from any manufacturing process, which includes any associated stacks, vents, outlets, or combination thereof, to

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exceed the amount determined by the relationship

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

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.5 For Emission Points AB-011 and AB-012, the permittee shall comply with the nitrogen oxides emission limitations and the fuel restrictions and operational limitations as specified in the construction permit issued February 13, 2007.

(Ref.: Federally Enforceable Construction Permit issued February 13, 2007, and modified January 4, 2011)

- 3.B.6 For Emission Point AE-005, the permittee shall only use No. 2 Fuel Oil or Diesel with a sulfur content of $\leq 0.4\%$ by volume.

(Ref.: Operating Permit issued November 12, 1991 and modified January 24, 2000)

- 3.B.7 For Emission Points AI-011 and AI-012, the permittee shall only use No. 2 Fuel Oil or Diesel with a sulfur content of $\leq 0.4\%$ by volume.

(Ref.: Construction Permit issued April 12, 1995)

- 3.B.8 For Emission Point AH-002, the permittee shall limit the emissions of PM/PM₁₀ to 2.63 lb/hr and 11.5 tpy.

(Ref.: Title V Operating Permit modified January 4, 2011)

- 3.B.9 For Emission Points AJ-001, AJ-011, and AJ-012, the permittee shall limit volatile organic compound emissions at or below the applicable VOC emission limitation established in a construction permit issued September 26, 1995.

(Ref.: Construction Permit issued September 26, 1995)

- 3.B.10 For Emission Point AJ-002, AJ-003, and AJ-004, the permittee shall limit total combined

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volatile organic compound emissions at or below the VOC emission limitation established in a construction permit issued September 25, 1990.

(Ref.: Construction Permit issued September 25, 1990)

- 3.B.11 For Emission Point AJ-008, the permittee shall not operate for more than 750 hours per year on a 12-month rolling basis. The permittee shall also operate and maintain the baghouse when the regeneration material is changed.

(Ref.: Title V Operating Permit issued XXXXXX)

- 3.B.12 For Emission Points AJ-009 and AJ-010, the permittee shall limit volatile organic compound emissions at or below the applicable VOC emission limitation established in a construction permit issued September 26, 1995, and modified July 9, 1996.

(Ref.: Construction Permit issued September 26, 1995, and modified July 9, 1996)

- 3.B.13 For Emission Point AB-011, the permittee is subject to and shall comply with the NSPS for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Db) and the applicable requirements of the General Provisions (40 CFR 60, Subpart A). The applicable NO_x emission limit of 0.20 lb/MMBTU is superceded by the permit limits from the Federally Enforceable Construction Permit issued February 13, 2007 (See Condition 3.B.5).

(Ref.: 40 CFR 60.40b, Subpart Db)

- 3.B.14 For Emission Point AB-012, each temporary boiler with a maximum heat input capacity of 87 MMBtu/Hr or less but greater than or equal to 10 MMBtu/Hr, the permittee shall determine whether the air emissions equipment is subject to and must comply with the New Source Performance Standards (NSPS), as described in 40 CFR 60, Subpart A – General Provisions, and the specific requirements outlined in 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

(Ref.: 40 CFR 60.40c, Subpart Dc and Construction Permit issued February 13, 2007)

- 3.B.15 Emission Points AB-010, AE-005, AI-011, and AI-012 are subject to and shall comply with the Maximum Achievable Control Technology (MACT) Standards as described in 40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines.

(Ref.: 40 CFR 63.6590, Subpart ZZZZ)

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3.B.16 Emission Point AB-010 is an existing compression ignition (CI) emergency stationary RICE with site ratings less than 500 brake horsepower. Beginning May 3, 2013, this emission point 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, Subpart ZZZZ)

3.B.17 For Emission Point AB-010, the permittee may choose to utilize an oil analysis program as outlined in Condition 5.B.22 of this permit in order to extend the specified oil change requirement in (a) above. The permittee may also petition the DEQ for use of an alternative work practice to (c) above and/or to the operational requirements for startup.

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

3.B.18 Beginning January 31, 2016, for Emission Points AB-011 and AB-013, the permittee is subject to and shall comply with the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD and the applicable General Provisions, 40 CFR 63, Subpart A.

Emission Point AB-012 is a temporary boiler as defined in 40 CFR 63.7575 and per 40 CFR 63.7491(j) and is not subject to 40 CFR 63, Subpart DDDDD.

(Ref.: 40 CFR 63.7485 and 63.7575, Subpart DDDDD)

3.B.19 For Emission Point AB-011, the permittee shall meet the applicable work practice standards in Table 3 of Subpart DDDDD, which include an annual tune-up of the boiler and a one-time energy assessment performed by a qualified energy assessor as defined in 40 CFR 63.7575. The initial tune-up and one-time energy assessment shall be completed prior to January 31, 2016. Subsequent tune-ups shall be conducted no more than 13 months after the previous tune-up.

The annual tune-up shall be conducted in a manner to satisfy the requirements in 40 CFR 63.7540(a)(10)(i) through (iv) and the one-time energy assessment shall include all required information from Table 3, Item 4, Paragraphs (a) through (h) of Subpart DDDDD.

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(Ref.: 40 CFR 63.7500(a)(1), 63.7515(d), 63.7540(a)(10), 63.7575, and Table 3, Subpart DDDDD)

3.B.20 For Emission Point AB-013, the permittee shall meet the applicable work practice standards in Table 3 of Subpart DDDDD, which include a tune-up of the process heater once every five years and a one-time energy assessment performed by a qualified energy assessor as defined in 40 CFR 63.7575. The initial tune-up and one-time energy assessment shall be completed prior to January 31, 2016. Subsequent tune-ups shall be conducted no more than 13 months after the previous tune-up.

The annual tune-up shall be conducted in a manner to satisfy the requirements in 40 CFR 63.7540(a)(10)(i) through (iv) and the one-time energy assessment shall include all required information from Table 3, Item 4, Paragraphs (a) through (h) of Subpart DDDDD.

(Ref.: 40 CFR 63.7500(a)(1), 63.7500(e), 63.7515(d), 63.7540(a)(12), 63.7575, and Table 3, Subpart DDDDD)

3.B.21 Beginning January 31, 2016, for Emission Points AB-011 and AB-013, the permittee shall at all times operate and maintain any affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions.

(Ref.: 40 CFR 63.7500(a)(3), Subpart DDDDD)

3.B.22 Beginning January 31, 2016, for Emission Points AB-011 and AB-013, the permittee shall be in compliance at all times the affected unit is operating except during periods of startup and shutdown in which the requirements in Table 3 of 40 CFR 63, Subpart DDDDD apply.

(Ref.: 40 CFR 63.7500(f), and 63.7505(a), Subpart DDDDD)

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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 Part 63, 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.16, 3.B.17, 5.B.14, 5.B.15, 5.B.16, 5.B.17, 5.B.18, 5.B.19, 5.B.20, and 5.B.21 of this permit no later than **May 3, 2013**.
- 4.4 The permittee is subject to and shall comply with the applicable requirements of 40 CFR 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The permittee shall comply with the requirements of Subpart DDDDD as specified in Conditions 3.B.18, 3.B.19, 3.B.20, 3.B.21, 3.B.22, 5.B.22, 5.B.23, 5.B.24, 5.B.25, 5.B.26, 5.C.6, 5.C.7, 5.C.8, 5.C.9, 5.C.10, 5.C.11, 5.C.12, 5.C.13, 5.C.14, and 5.C.15 of this permit no later than **January 31, 2016**.

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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

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be made within five (5) days of the time the deviation began. (Ref.: APC-S-6, Section III.A.3.c.(2))

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

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

B. Specific Monitoring and Recordkeeping Requirements

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number	Applicable Requirement
AB-010 AE-005 AI-011 AI-012	Fuel Usage	Maintain records documenting fuel usage on a monthly basis	5.B.1	APC-S-6, Section III.A.3.a(2)
AH-002	PM/PM ₁₀	Testing and Compliance Demonstration	5.B.2	APC-S-6, Section III.A.3.a
AJ-001 AJ-002 AJ-003 AJ-004 AJ-009 AJ-010 AJ-011 AJ-012	VOC	Testing and Compliance Demonstration	5.B.3	APC-S-6, Section III.A.3.a
AJ-008	Hours of Operation	Recordkeeping	5.B.4	APC-S-6, Section III.A.3.a
	PM/PM ₁₀	Baghouse Maintenance	5.B.5	APC-S-6, Section III.A.3.a
AH-002 AI-001 AI-003 AI-006 AI-007	PM/PM ₁₀	CAM Plan Requirements in Appendix B.	5.B.6	40 CFR Part 64 APC-S-6, Section III.A.3.a(1)

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Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number	Applicable Requirement
AJ-001 AJ-002 AJ-003 AJ-004 AJ-009 AJ-010 AJ-011 AJ-012	VOC	CAM Plan Requirements in Appendix B.		
AB-012	NSPS Applicability Determination, Fuel Usage and Hours of Operation	Maintain records on a daily basis and each consecutive 12-month period	5.B.7 5.B.8	40 CFR 60.48c(g), Subpart Dc, Construction Permit Issued February 13, 2007, and APC-S-6, Section III.A.3.a(2)
	NO _x	Maintain records of maximum hourly emission rate and the 12-month emission rate	5.B.9	Construction Permit issued February 13, 2007
AB-011	NO _x	Install, calibrate, maintain, and operate a CEMS for NO _x and O ₂ (or CO ₂)	5.B.10	40 CFR 60.48b(g)(1), (b)(1), (c), (d), (e), and (f), Subpart Db
		Fuel Recordkeeping	5.B.11	40 CFR 60.49b(d)(1), Subpart Db
		NO _x Emissions Recordkeeping	5.B.12	40 CFR 60.49b(g), Subpart Db
		NO _x Emissions Monitoring	5.B.13	APC-S-6, Section III.A.3.a(2)
AE-005 AI-011 AI-012	HAP	Continuous Compliance	5.B.14	40 CFR 63.6640(f)(2), Subpart ZZZZ
AB-010	HAP	Maintenance Requirements	5.B.15	40 CFR 63.6625(e), Subpart ZZZZ
		Installation	5.B.16	40 CFR 63.6625(f), Subpart ZZZZ
AB-010	HAP	Operation	5.B.17	40 CFR 63.6625(h), Subpart ZZZZ
		Oil Analysis	5.B.18	40 CFR 63.6625(i), Subpart ZZZZ
		Continuous Compliance	5.B.19	40 CFR 63.6605, Subpart ZZZZ
			5.B.20	40 CFR 63.6640(f)(1), Subpart ZZZZ
		Recordkeeping	5.B.21	40 CFR 63.6655, Subpart ZZZZ

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Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number	Applicable Requirement
AB-011 AB-013	HAP	Recordkeeping	5.B.22	40 CFR 63.7555(a), Subpart DDDDD
		Recordkeeping of Alternative Fuels	5.B.23	40 CFR 63.7555(h), Subpart DDDDD
		Recordkeeping of Startup and Shutdown	5.B.24	40 CFR 63.7555(i), Subpart DDDDD
AB-011 AB-013	HAP	Recordkeeping of Startup and Shutdown	5.B.25	40 CFR 63.7555(j), Subpart DDDDD
		Recordkeeping	5.B.26	40 CFR 63.7560, Subpart DDDDD

5.B.1 For Emission Points AB-010, AE-005, AI-011, and AI-012, the permittee shall monitor and maintain monthly records on the type, quantity, and sulfur content (% by weight) of all fuels combusted.

(Ref.: APC-S-6. Section III.A.3.a(2))

5.B.2 For Emission Point AH-002, the permittee shall perform stack testing once per permit term in accordance with EPA Reference Methods 1-5, to demonstrate compliance with the permitted emission limitations for particulate matter for the scrubber. For the purpose of compliance demonstration the permittee shall operate the source at maximum capacity. During the stack tests sodium chlorate concentrations shall be monitored.

For purposes of demonstrating compliance with the opacity limit, the permittee shall conduct an opacity evaluation in accordance with EPA Test Method 9, 40 CFR Part 60, Appendix A. For purposes of determining compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages). This evaluation shall be conducted concurrently with the particulate matter stack testing required for this emission point(s). However, if visibility or other conditions prevent the opacity observations from being performed concurrently with the stack testing, the permittee shall reschedule the opacity observations as soon after the stack testing as possible, but no later than thirty (30) days thereafter, and shall notify DEQ of the rescheduled date. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the stack test.

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

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

(Ref.: APC-S-6. Section III.A.3.a)

- 5.B.3 For Emission Points AJ-001, AJ-002, AJ-003, AJ-004, AJ-009, AJ-010, AJ-011, and AJ-012, the permittee shall perform stack testing once per permit term in accordance with EPA Reference Method 25 to demonstrate compliance with the permitted emissions limitations for volatile organic compounds. For the purpose of compliance demonstration the permittee shall operate the source at maximum capacity.

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

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

(Ref.: APC-S-6. Section III.A.3.a)

- 5.B.4 For Emission Point AJ-008, the permittee shall monitor and record the hours of operation on a 12 month rolling total.

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

- 5.B.5 For Emission Point AJ-008, the permittee shall operate and maintain the baghouse according to manufacturer's specifications. The permittee shall perform regular inspections and required maintenance each calendar quarter or more often if necessary to maintain proper operation of the baghouse. The permittee shall maintain, on hand at all times, sufficient equipment necessary to repair and/or overhaul the baghouse.

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

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5.B.6 For Emission Points AH-002, AI-001, AI-003, AI-006, AI-007, AJ-001, AJ-002, AJ-003, AJ-004, AJ-009, AJ-010, AJ-011, and AJ-012, the permittee is subject to and shall comply with the Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64. The permittee shall comply with the specific requirements outlined in the CAM Plan found in Appendix B of this permit. The permittee shall also comply with all other applicable requirements of 40 CFR Part 64 including, but not limited to, the monitoring, recordkeeping, and reporting requirements of §§64.7, 64.8, and 64.9.

(Ref.: 40 CFR Part 64, and APC-S-6, Section III.A.3.a(1))

5.B.7 For Emission Point AB-012, the permittee shall determine the applicability of 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. When applicable, the permittee shall record and maintain records of the amounts of each fuel combusted each month. The permittee shall record and maintain records of natural gas combusted during each calendar month.

(Ref.: 40 CFR 60.48c(g), Subpart Dc)

5.B.8 For Emission Point AB-012, the permittee shall record and maintain records of:

- (a) The date of installation, the date of startup, and the date the temporary boiler was removed from service,
- (b) The design heat input capacity in MMBtu/Hr,
- (c) An applicability determination for 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, and
- (d) The daily hours of operation and the cumulative total.
- (e) The total amount of natural gas combusted during the time the boiler is on-site.

(Ref.: Construction Permit issued February 13, 2007, and APC-S-6, Section III.A.3.a(2))

5.B.9 For Emission Point AB-012, the permittee shall record and maintain records of the maximum hourly nitrogen oxides emission rate and the consecutive 12-month nitrogen oxide emission rate in tons/year. The method(s) used to determine the nitrogen oxide emission rate shall accompany this data.

(Ref.: Construction Permit issued February 13, 2007)

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5.B.10 For Emission Point AB-011, the permittee shall install, calibrate, maintain, and operate CEMS for measuring NO_x and O₂ (or CO₂) emissions discharged to the atmosphere, and shall record the output of the system. The CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. The 1-hour average NO_x emission rates measure by the NO_x CEMS shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.44b(l). The 1-hour average shall be calculated using the data points required under §60.13(h)(2).

(Ref.: 40 CFR 60.48b(g)(1), (b)(1), (c), and (d), Subpart Db)

The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. The span value for NO_x shall be 500 ppm. When NO_x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 or 7A of 40 CFR 60, Subpart A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

(Ref.: 40 CFR 60.48b(e) and (f), Subpart Db)

5.B.11 For Emission Point AB-011, the permittee shall record and maintain records of the amounts of each fuel combusted during each day.

(Ref.: 40 CFR 60.49b(d)(1), Subpart Db)

5.B.12 For Emission Point AB-011, the permittee shall maintain records of the information required by 40 CFR 60.49b(g)(1)-(10) for each steam generating unit operating day.

(Ref.: 40 CFR 60.49b(g), Subpart Db)

5.B.13 For Emission Point AB-011, the permittee shall use the NO_x CEMS required by NSPS Subpart Db to demonstrate compliance with the lb/hr, lb/MMBtu, and TPY NO_x emission limitations. The lb/hr and lb/MMBtu emissions shall be determined on an hourly basis and shall be used to calculate the 3-hour rolling average emissions of NO_x. The permittee shall also determine the total NO_x emissions for each calendar month and use these emissions to determine the 12-month rolling total emissions in TPY.

(Ref.: APC-S-6, Section III.A.3.a(2))

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5.B.14 Beginning May 3, 2013, for Emission Points AE-005, AI-011, and AI-012, the permittee shall operate the engine according to the following conditions. If you do not operate the engine according to the requirements, the engine will not be considered an emergency engine and will need to meet all requirements for non-emergency engines.

- (a) There is no time limit on the use of emergency stationary RICE in emergency situations.
- (b) The permittee shall operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.
- (c) The permittee shall operate the emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for the facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 6640(f)(2), Subpart ZZZZ)

5.B.15 Beginning May 3, 2013, for Emission Point AB-010, the permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) 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), Subpart ZZZZ)

5.B.16 Beginning May 3, 2013, for Emission Point AB-010, the permittee shall install a non-resettable hour meter if one is not already installed.

(Ref.: 40 CFR 63.6625(f), Subpart ZZZZ)

5.B.17 Beginning May 3, 2013, for Emission Point AB-010, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

(Ref.: 40 CFR 63.6225(h), Subpart ZZZZ)

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5.B.18 Beginning May 3, 2013, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement. The oil analysis must be performed at the same frequency specified for changing the oil. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 days or before commencing operation, whichever is later. The permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(Ref.: 40 CFR 63.6625(i), Subpart ZZZZ)

5.B.19 Beginning May 3, 2013, for Emission Point AB-010, the permittee shall comply with the following:

- (a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply at all times.
- (b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(Ref.: 40 CFR 63.6605, Subpart ZZZZ)

5.B.20 For Emission Point AB-010, the permittee shall operate the emergency stationary RICE according to the following requirements. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited. If you do not operate the engine according to the requirements, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

- (a) There is no time limit on the use of emergency stationary RICE in emergency

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situations.

- (b) The permittee shall operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year.
- (c) The permittee shall operate the emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent.

(Ref.: 40 CFR 63.6640(f)(1), Subpart ZZZZ)

5.B.21 Beginning May 3, 2013, for Emission Point AB-010, the permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE.

The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(Ref.: 40 CFR 63.6655(e), and (f), Subpart ZZZZ)

5.B.22 For Emission Points AB-011 and AB-013, the permittee shall keep the following records:

- (1) A copy of each notification and report that was submitted to comply with 40 CFR 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).
- (2) Records of compliance demonstrations and performance evaluations as required in 40

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CFR 63.10(b)(2)(viii).

(Ref.: 40 CFR 63.7555(a), Subpart DDDDD)

5.B.23 Beginning January 31, 2016, for Emission Points AB-011 and AB-013, if the permittee uses an alternative fuel other than natural gas or refinery gas, the permittee shall keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

(Ref.: 40 CFR 63.7555(h), Subpart DDDDD)

5.B.24 Beginning January 31, 2016, for Emission Points AB-011 and AB-013, the permittee shall maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(Ref.: 40 CFR 63.7555(i), Subpart DDDDD)

5.B.25 Beginning January 31, 2016, for Emission Points AB-011 and AB-013, the permittee shall maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

(Ref.: 40 CFR 63.7555(j), Subpart DDDDD)

5.B.26 For Emission Points AB-011 and AB-013, the permittee shall comply with the following:

- (1) Records shall be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).
- (2) Each record shall be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (3) Records shall be kept on site, or accessible from on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The records can be kept off site for the remaining 3 years.

(Ref.: 40 CFR 63.7560, Subpart DDDDD)

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C. Specific Reporting Requirements

Emission Point(s)	Pollutant/Parameter Monitored	Reporting Requirement	Condition Number	Applicable Requirement
AB-010 AE-005 AI-011 AI-012	Fuel Usage	Semi-annual Reporting	5.C.1	APC-S-6, Section III.A.3.c(1)
AH-002 AI-001 AI-003 AI-006 AI-007 AJ-001 AJ-002 AJ-003 AJ-004 AJ-008 AJ-009 AJ-010 AJ-011 AJ-012	Stack Testing	Submit stack test results within 45 days of conducting stack test	5.C.2	APC-S-6, Section III.A.3.c(1)
AJ-008	Hours of Operation	Semi-annual Reporting	5.C.3	APC-S-6, Section III.A.3.c(1)
AB-012	Fuel Usage and Hours of Operation	Reporting	5.C.4	APC-S-6, Section III.A.3.c(1)
AB-011	Reporting	Semi-annual reporting	5.C.5	40 CFR 60.49b(i), Subpart Db
AB-011 AB-013	Reporting	Notification of Compliance Status signed statement	5.C.6	40 CFR 63.7530(d) and (e), 63.7545(e), Subpart DDDDD
		Notifications	5.C.7	40 CFR 63.7545(a), Subpart DDDDD
		Notification of Alternative Fuel	5.C.8	40 CFR 63.7545(f), Subpart DDDDD
		Notification of Fuel Switch or Physical Change to Boiler	5.C.9	40 CFR 63.7545(h), Subpart DDDDD

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Emission Point(s)	Pollutant/Parameter Monitored	Reporting Requirement	Condition Number	Applicable Requirement
AB-011 AB-013	Reporting	Reporting	5.C.10	40 CFR 63.7550(a) and Table 9, Subpart DDDDD
		Submissions Schedule	5.C.11	40 CFR 63.7550(b) and Table 9, Subpart DDDDD
		Electronic Reports	5.C.12	40 CFR 63.7550(h), Subpart DDDDD

5.C.1 For Emission Points AB-010, AE-005, AI-011, and AI-012, the permittee shall submit a report of the fuel usage and the information required by Condition 5.B.1 in accordance with Condition 5.A.4.

(Ref.: APC-S-6, Section III.A.3.c(1))

5.C.2 For Emission Points AD-004, AH-002, AI-001, AI-003, AI-006, AI-007, AJ-001, AJ-002, AJ-003, AJ-004, AJ-008, AJ-009, AJ-010, AJ-011, and AJ-012, the permittee shall submit a report of any stack test results within forty-five (45) days of conducting a respective stack test.

(Ref.: APC-S-6, Section III.A.3.c(1))

5.C.3 For Emission Point AJ-008, the permittee shall record the hours of operation on a 12-month rolling total. This report shall be submitted in accordance with Condition 5.A.4.

(Ref.: APC-S-6, Section III.A.3.c(1))

5.C.4 For Emission Point AB-012, the permittee shall submit a notification of the information required in Conditions 5.B.8 and 5.B.9. This notification must be postmarked by the 30th day following the end of the occurrence.

(Ref.: APC-S-6, Section III.A.3.c(1))

5.C.5 For Emission Point AB-011, the permittee shall submit semiannual reports containing the information recorded under 40 CFR 60.49b(g).

(Ref.: 40 CFR 60.49b(i), Subpart Db)

5.C.6 For Emission Points AB-011 and AB-013, the permittee shall submit a signed statement in

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the Notification of Compliance Status report that indicates the tune-up of the unit and the energy assessment required in Conditions 3.B.19 and 3.B.20 of this permit have been completed. The statement shall include an evaluation stating the energy assessment was completed in accordance with Table 3 of Subpart DDDDD and is an accurate depiction of the facility at the time of the assessment.

The Notification of Compliance Status shall be submitted no later than 60 days after the completion of all the initial compliance demonstration activities for each boiler and process heater at the facility and shall include the required statements from above and all the information specified in 40 CFR 63.7545(e)(1) through (8).

(Ref.: 40 CFR 63.7530(d) and (e), and 63.7545(e), Subpart DDDDD)

5.C.7 For Emission Points AB-011 and AB-013, the permittee shall submit all applicable notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified.

(Ref.: 40 CFR 63.7545(a), Subpart DDDDD)

5.C.8 For Emission Points AB-011 and AB-013, if the permittee uses another fuel besides natural gas or refinery gas, the permittee shall submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. The notification shall include the information specified in 40 CFR 63.7545(f)(1) through (5).

(Ref.: 40 CFR 63.7545(f), Subpart DDDDD)

5.C.9 For Emission Points AB-011 and AB-013, if the permittee switched fuels or made a physical change to the boiler and the fuel switch or physical change resulted in the applicability of a different subcategory, the permittee shall provide notice of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify the information specified in 40 CFR 63.7545(h)(1) through (3).

(Ref.: 40 CFR 63.7545(h), Subpart DDDDD)

5.C.10 Beginning January 31, 2016, for Emission Points AB-011 and AB-013, the permittee shall submit each report in Table 9 of Subpart DDDDD that applies.

(Ref.: 40 CFR 63.7550(a) and Table 9, Subpart DDDDD)

5.C.11 Beginning January 31, 2016, for Emission Points AB-011 and AB-013, the permittee shall

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submit all information from the required tune-ups in accordance with Condition 4.2 of this permit.

(Ref.: 40 CFR 63.7550(b), Subpart DDDDD and APC-S-2, Section II.B.10)

5.C.12 Beginning January 31, 2016, for Emission Points AB-011 and AB-013, all reports required by Table 9 of subpart DDDDD shall be submitted electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee shall submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13.

(Ref.: 40 CFR 63.7550(h), Subpart DDDDD)

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SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 None permitted.

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SECTION 7. TITLE VI REQUIREMENTS

The following are applicable or potentially applicable requirements originating from Title VI of the Clean Air Act – Stratospheric Ozone Protection. The full text of the referenced regulations may be found on-line at <http://ecfr.gpoaccess.gov> under Title 40, or DEQ shall provide a copy upon request from the permittee.

- 7.1 If the permittee produces, transforms, destroys, imports or exports a controlled substance or imports or exports a controlled product, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart A – Production and Consumption Controls.
- 7.2 If the permittee performs service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart B – Servicing of Motor Vehicle Air Conditioners.
- 7.3 The permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart E – The Labeling of Products Using Ozone-Depleting Substances, for the following containers and products:
 - (a) All containers in which a class I or class II substance is stored or transported;
 - (b) All products containing a class I substance; and
 - (c) All products directly manufactured with a process that uses a class I substance, unless otherwise exempted by this subpart or, unless EPA determines for a particular product that there are no substitute products or manufacturing processes for such product that do not rely on the use of a class I substance, that reduce overall risk to human health and the environment, and that are currently or potentially available. If the EPA makes such a determination for a particular product, then the requirements of this subpart are effective for such product no later than January 1, 2015.
- 7.4 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart F – Recycling and Emissions Reduction:
 - (a) Servicing, maintaining, or repairing appliances;
 - (b) Disposing of appliances, including small appliances and motor vehicle air conditioners;
or
 - (c) Refrigerant reclaimers, technician certifying programs, appliance owners and

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operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, persons selling class I or class II refrigerants or offering class I or class II refrigerants for sale, and persons purchasing class I or class II refrigerants.

- 7.5 The permittee shall be allowed to switch from any ozone-depleting substance to any acceptable alternative that is listed in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G – Significant New Alternatives Policy Program. The permittee shall also comply with any use conditions for the acceptable alternative substance.
- 7.6 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart H – Halon Emissions Reduction:
- (a) Any person testing, servicing, maintaining, repairing, or disposing of equipment that contains halons or using such equipment during technician training;
 - (b) Any person disposing of halons;
 - (c) Manufacturers of halon blends; or
 - (d) Organizations that employ technicians who service halon-containing equipment.

APPENDIX A

List of Abbreviations Used In this Permit

APC-S-1	Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants
APC-S-2	Permit Regulations for the Construction and/or Operation of Air Emissions Equipment
APC-S-3	Regulations for the Prevention of Air Pollution Emergency Episodes
APC-S-4	Ambient Air Quality Standards
APC-S-5	Regulations for the Prevention of Significant Deterioration of Air Quality
APC-S-6	Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act
APC-S-7	Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act
BACT	Best Available Control Technology
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
DEQ	Mississippi Department of Environmental Quality
EPA	United States Environmental Protection Agency
gr/dscf	Grains Per Dry Standard Cubic Foot
HP	Horsepower
HAP	Hazardous Air Pollutant
lbs/hr	Pounds per Hour
M or K	Thousand
MACT	Maximum Achievable Control Technology
MM	Million
MMBTUH	Million British Thermal Units per Hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards For Hazardous Air Pollutants, 40 CFR 61
	or
	National Emission Standards For Hazardous Air Pollutants for Source Categories, 40 CFR 63
NM VOC	Non-Methane Volatile Organic Compounds
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 Fm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration, 40 CFR 52
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOC	Volatile Organic Compound

Appendix B

Compliance Assurance Monitoring (CAM) Plan

Compliance Assurance Monitoring (CAM) Plan
Venturi Scrubber (AH-002)

	Indicator No. 1
Measurement Approach	Concentration of sodium chlorate in the scrubbing liquid
	Laboratory analysis
Indicator Range	An excursion is defined as a laboratory result greater than 700 g/L sodium chlorate concentration in the scrubbing liquid
Performance Criteria	
Data Representativeness	The sample is taken from the scrubber circulation
QA/QC Practice and Criteria	Lab complies with ASTM standards.
Monitoring Frequency and Data Collection Procedures	Daily sampling and analysis

Compliance Assurance Monitoring (CAM) Plan
Three Stage Spray Tower Wet Scrubber for PM Control (AI-001 and AI-007)

	Indicator No. 1	Indicator No. 2
Measurement Approach	Concentration of sodium chlorate in the scrubbing liquid	Stack test results per EPA Test Methods 1 - 5
	Laboratory analysis	Exhaust sampling and analysis
Indicator Range	An excursion is defined as a laboratory result greater than 600 g/L sodium chlorate concentration in the scrubbing liquid	An excursion is defined as a stack test result greater than 0.8 lb/hr as a 3-hour average
Performance Criteria		
Data Representativeness	The sample is taken from the scrubber circulation	Stack testing is performed at the scrubber exhaust at full capacity of the facility
QA/QC Practice and Criteria	Lab complies with ASTM standards.	Submit a written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ shall be notified in writing at least ten (10) days prior to the scheduled test date(s) so that an observer may be afforded the opportunity to witness the test(s).
Monitoring Frequency and Data Collection Procedures	Daily sampling and analysis	One stack test during the permit period. Data collection per the approved protocol.

Compliance Assurance Monitoring (CAM) Plan
Spray Tower Wet Washer for PM Control (AI-003)

	Indicator No. 1	Indicator No. 2
Measurement Approach	Concentration of sodium chlorate in the scrubbing liquid	Stack test results per EPA Test Methods 1 - 5
	Laboratory analysis	Exhaust sampling and analysis
Indicator Range	An excursion is defined as a laboratory result greater than 600 g/L sodium chlorate concentration in the scrubbing liquid	An excursion is defined as a stack test result greater than 0.5 lb/hr as a 3-hour average
Performance Criteria		
Data Representativeness	The sample is taken from the scrubber circulation	Stack testing is performed at the scrubber exhaust at full capacity of the facility
QA/QC Practice and Criteria	Lab complies with ASTM standards.	Submit a written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ shall be notified in writing at least ten (10) days prior to the scheduled test date(s) so that an observer may be afforded the opportunity to witness the test(s).
Monitoring Frequency and Data Collection Procedures	Daily sampling and analysis	One stack test during the permit period. Data collection per the approved protocol.

Compliance Assurance Monitoring (CAM) Plan
Three Stage Spray Tower Wet Scrubber for PM Control (AI-006)

	Indicator No. 1	Indicator No. 2
Measurement Approach	Concentration of sodium chlorate in the scrubbing liquid	Stack test results per EPA Test Methods 1 - 5
	Laboratory analysis	Exhaust sampling and analysis
Indicator Range	An excursion is defined as a laboratory result greater than 600 g/L sodium chlorate concentration in the scrubbing liquid	An excursion is defined as a stack test result greater than 1.5 lb/hr as a 3-hour average
Performance Criteria		
Data Representativeness	The sample is taken from the scrubber circulation	Stack testing is performed at the scrubber exhaust at full capacity of the facility
QA/QC Practice and Criteria	Lab complies with ASTM standards.	Submit a written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ shall be notified in writing at least ten (10) days prior to the scheduled test date(s) so that an observer may be afforded the opportunity to witness the test(s).
Monitoring Frequency and Data Collection Procedures	Daily sampling and analysis	One stack test during the permit period. Data collection per the approved protocol.

Compliance Assurance Monitoring (CAM) Plan
Condenser for VOC Control (AJ-001)

	Indicator No. 1
Measurement Approach	Temperature of the gas after the condenser Routine monitoring of on-line instrumentation
Indicator Range	An excursion level limit is defined as a temperature greater than 30°C during normal operations
Performance Criteria	
Data Representativeness	The thermocouple is located in close proximity to the discharge point of the condenser
QA/QC Practice and Criteria	Maintain thermocouple in accordance with manufacturer's specifications.
Monitoring Frequency and Data Collection Procedures	Record the temperature daily

Compliance Assurance Monitoring (CAM) Plan
Activated Carbon Bed for VOC Reduction (AJ-002, AJ-003, AJ-011, AJ-012)

	Indicator No. 1	Indicator No. 2
Measurement Approach	Temperature increase after the carbon adsorption bed is cooled	Colorimetric hydrocarbon detector tube test
	On-line temperature indication of the bed temperature after the regeneration and cooling cycle is completed	Sample exhaust gases with colorimetric hydrocarbon detector tube each month at the end of an adsorption cycle
Indicator Range	An excursion is defined as a temperature increase of 10°C after the bed has cooled from regeneration	An excursion would be reported at greater than 30 ppm
Performance Criteria		
Data representativeness	The temperature indicator is in the top portion of the activated carbon bed and is installed in a thermowell that permits the temperature probe to be calibrated, repaired or replaced during operations	The test at the end of the adsorption cycle has the highest potential to detect hydrocarbons in the exhaust gas stream. A high value would indicate the effectiveness of the regeneration cycle or carbon needs replacement
QA/QC Practice and Criteria	Thermocouple maintained and calibrated per manufacturer's specifications.	Hydrocarbon detector maintained and calibrated per manufacturer's specifications.
Monitoring Frequency and Data Collection Procedures	The minimum and maximum temperature increase after cooling is recorded daily for the carbon adsorption bed when it is in adsorption phase.	Testing is conducted each month on the stack. The tube is inserted into the exhaust gas stream for testing.

Compliance Assurance Monitoring (CAM) Plan
Condenser for VOC Control (AJ-009)

	Indicator No. 1
Measurement Approach	Control valve position
	Record valve position and flow when venting
Indicator Range	An action level limit is defined as a flow greater than 25 normal m ³ /hr and a valve opening greater than 25% when working solution is circulating in the reactor
Performance Criteria	
Data Representativeness	The valve opening and flow measurement track together at operating conditions
QA/QC Practice and Criteria	Flow meter maintained and calibrated per manufacturer's specifications.
Monitoring Frequency and Data Collection Procedures	Record the gas flow rate daily when discharging

Compliance Assurance Monitoring (CAM) Plan
Condenser for VOC Control (AJ-010)

	Indicator No. 1
Measurement Approach	Control valve position
	Record valve position and flow when venting
Indicator Range	An action level limit is defined as a flow greater than 25 normal m ³ /hr and a valve opening greater than 16% when working solution is circulating in the reactor
Performance Criteria	
Data Representativeness	The valve opening and flow measurement track together at operating conditions
QA/QC Practice and Criteria	Flow meter maintained and calibrated per manufacturer's specifications.
Monitoring Frequency and Data Collection Procedures	Record the gas flow rate daily when discharging