STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

First Chemical Corporation
1001 Industrial Road
Jackson County, Mississippi

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: MAR 1 3 2009

Effective Date: As specified herein

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: February 28, 2014 **Permit No.: 1280-00022**

1477 PER20020002

TABLE OF CONTENTS

SECTION 1. GENERAL CONDITIONS

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

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

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

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

1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. [Ref.: APC-S-6, Section III.A.6.e.]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(b) the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

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

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

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

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

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

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

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

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

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

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

(3) any change in emissions, and

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

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

1.18 Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in Regulation APC-S-3, "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared. [Ref.: APC-S-3)

1.19 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations APC-S-2, “Permit Regulations for

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

(a) routine maintenance, repair, and replacement;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) Maintenance.

(1) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the permittee can demonstrate the following:

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

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

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

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

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

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

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

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

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Formerly Known As	Facility Ref. No.	Description
AA-000	**FUEL BURNING EQUIPMENT**		
AA-001	AB-001		40.6 MMBTU/hr Natural Gas-Fired Coen Steam Boiler.
AA-002	AB-003		37.0 MMBTU/hr Natural Gas-Fired Cleaver Brooks Steam Boiler.
AA-003	AB-004		84.0 MMBTU/hr Natural Gas-Fired #2 Hydrogen Plant Steam Generator, which controls emissions from the chemical processes associated with Emission Points AB-001, AB-002, and AC-001.
AA-004	AB-005		45.0 MMBTU/hr Natural Gas-Fired #1 Hydrogen Plant Steam Generator.
AA-005	AG-003		11.4 MMBTU/hr Natural Gas-Fired #2 Hydrogenation Startup Heater.
AA-006	AF-003		8.0 MMBTU/hr Natural Gas-Fired #1 Hydrogenation Startup Heater.
AA-007	AJ-002		5.42 MMBTU/hr Natural Gas-Fired MPD Hot Oil Heater (Distillation Reboiler Heater).
AA-008	AJ-003		4.0 MMBTU/hr Natural Gas-Fired Batch Specialties Hot Oil Heater.
AA-009	AT-000		32.0 MMBTU/hr Natural Gas-Fired Hazardous Waste Incinerator.
AA-010	AT-001		1.6 MMBTU/hr Natural Gas-Fired Thermox Vent Gas Thermal Oxidizer, which controls emissions from the chemical processes associated with Emission Points AI-001, AC-002, and AH-001.
MANUFACTURING PROCESSES			
AB-000	**No. 1 HYDROGENATION UNIT PROCESS**		
AB-001	AF-001		The #1 Hydrogenation Plant Vent has emissions associated with the production of specialty chemicals; however, under normal operating conditions the emissions vent to AA-003. Other control equipment associated with the process is condenser TT-303X.
AB-002	AF-002		The #1 Hydrogenation Plant Vacuum Vent has emissions associated with the production of specialty chemicals by utilizing staged vacuum distillation. Other control equipment associated with the process are condensers TT-304, TT-305, and E-309.
AB-003		AS-304	5,000 Gallon Chemical Storage Tank.
AB-004	AV-011	(TK-1010)	12,000 Gallon Chemical Storage Tank.
AB-005	AX-022	(MF-604)	457,500 Gallon Chemical Storage Tank.
AB-006	AX-029	(MS-305A)	11,319 Gallon Chemical Storage Tank.
AB-007	AX-030	(MS-305B)	11,319 Gallon Chemical Storage Tank.
AB-008	AX-035	(MS-311A)	11,515 Gallon Chemical Storage Tank.
AB-009	AX-036	(MS-311B)	11,515 Gallon Chemical Storage Tank.
AB-010	AX-037	(MS-312)	1,269 Gallon Chemical Storage Tank.
AB-011	AX-053	(TK-903)	11,515 Gallon Chemical Storage Tank.
AB-012	AX-054	(TK-904)	11,515 Gallon Chemical Storage Tank.
AB-013	AX-058	(TK-1004)	845,968 Gallon Chemical Storage Tank.
AB-014	AX-064	(TK-1016)	7,520 Gallon Chemical Storage Tank.
AB-015	AX-200	(MS-310)	2,500 Gallon Chemical Storage Tank.
AB-016	AX-201	(MS-309)	2,300 Gallon Chemical Storage Tank.
AB-017	AX-202	(MS-308)	2,000 Gallon Chemical Storage Tank.
AB-018	AX-203	(MS-303)	2,000 Gallon Chemical Storage Tank.
AB-019	AX-204	(V-1157A)	1,300 Gallon Chemical Storage Tank.

Emission Point	Formerly Known As	Facility Ref. No.	Description
AB-020	AX-205	(V-1157B)	1,300 Gallon Chemical Storage Tank.
AB-021		(TK-1011)	5,300 Gallon Chemical Storage Tank
AB-022		TK-1012	5,300 Gallon Chemical Storage Tank
AB-023		TK-140	4,000 Gallon Chemical Storage Tank
AC-000	**No. 2 HYDROGENATION UNIT PROCESS**		
AC-001	AG-001		The #2 Hydrogenation Plant Vent has emissions associated with the production of Aniline; however, under normal operating conditions the emissions vent to AA-003. Other control equipment associated with the process is condenser E-705.
AC-002	AG-002		The #2 Hydrogenation Plant Vacuum Vent has emissions associated with the production of Aniline by way of staged vacuum distillation; however, under normal operating conditions the emissions are vented to AA-010. Other control equipment associated with the process are condensers E-706, E-708A, E-708B, and E-710.
AC-003	AG-004		The Benzene Recovery Still recovers Benzene from the distillation system. Other control equipment associated with the process is condenser E-752.
AC-004	AG-010		Aniline Water Stripper, which uses steam to strip organic constituents from wastewater produced by various processes. Other control equipment associated with the process is condenser E-732.
AC-005	AQ-015	(TK-1005)	146,869 Gallon Chemical Storage Tank.
AC-006	AX-025	(MS-104)	11,515 Gallon Chemical Storage Tank.
AC-007	AX-026	(MS-111)	11,319 Gallon Chemical Storage Tank.
AC-008	AX-070	(TK-1022)	845,968 Gallon Chemical Storage Tank.
AC-009	AX-105	(V-713)	2,331 Gallon Chemical Storage Tank.
AC-010	AX-106	(V-718)	9,887 Gallon Chemical Storage Tank.
AC-011	AX-150	(V-715)	50 Gallon Chemical Storage Tank.
AC-012	AX-210	(V-709)	1,200 Gallon Chemical Storage Tank.
AC-013	AX-211	(V-710)	3,300 Gallon Chemical Storage Tank.
AC-014	AX-212	(V-711)	1,800 Gallon Chemical Storage Tank.
AC-015	AX-213	(V-712)	700 Gallon Chemical Storage Tank.
AC-016	AX-214	(V-708)	1,600 Gallon Chemical Storage Tank.
AC-017	AX-220	(C-701)	5,000 Gallon Chemical Storage Tank.
AD-000	**No. 3 HYDROGENATION UNIT PROCESS**		
AD-001	AH-001	(C1401)	The #3 Hydrogenation Scrubber No. 1 has emissions associated with the production of specialty chemicals utilizing various processes, and which under normal operating conditions vents to AD-002.
AD-002	AH-004	(C1402)	The #3 Hydrogenation Scrubber No. 2 has emissions associated with the production of specialty chemicals utilizing various processes.
AD-003	AH-002	(TK-1400)	3,008 Gallon Chemical Storage Tank.
AD-004	AH-003	(TK-1401)	5,264 Gallon Chemical Storage Tank.
AD-005	AQ-017	(TK-1046)	15,300 Gallon Chemical Storage Tank.
AD-006	AV-014	(TK-1044)	12,066 Gallon Chemical Storage Tank.
AD-007	AV-015	(TK-1045)	12,066 Gallon Chemical Storage Tank.
AE-000	**No. 4 HYDROGENATION UNIT PROCESS**		
AE-001	AI-001	(C-1421)	The #4 Hydrogenation Scrubber Vent has emissions associated with the production of specialty chemicals. Control equipment associated with this process is condenser E-1423.
AE-002	AI-002	(C-1422)	The #4 Hydrogenation staged distillation process where specialty chemicals are produced. Other control equipment associated with the process are condensers E-1425 and E-1427.

Emission Point	Formerly Known As	Facility Ref. No.	Description
AE-003	AI-003	(TK-1422)	20,303 Gallon Chemical Storage Tank.
AE-004	AI-004	(TK-1423)	20,303 Gallon Chemical Storage Tank.
AE-005	AQ-011	(TK-1603)	144,379 Gallon Chemical Storage Tank.
AE-006	AQ-012	(TK-1604)	88,122 Gallon Chemical Storage Tank.
AE-007	AQ-014	(TK-1606)	271,650 Gallon Chemical Storage Tank.
AE-008	AQ-021	(TK-1406)	88,122 Gallon Chemical Storage Tank.
AE-009	AV-005	(TK-1600)	169,194 Gallon Chemical Storage Tank.
AE-010	AV-006	(TK-1605)	88,122 Gallon Chemical Storage Tank.
AE-011	AX-061	(TK-1013)	192,088 Gallon Chemical Storage Tank.
AE-012	AX-094	(TK-1420)	8,225 Gallon Chemical Storage Tank.
AE-013	AX-095	(TK-1421)	20,303 Gallon Chemical Storage Tank.
AE-014	AX-096	(TK-1424)	7,050 Gallon Chemical Storage Tank.
AF-000	**No. 5 BATCH SPECIALTY UNIT PROCESS**		
AF-001		-(C-14101)	A Batch Specialties Scrubber having emissions associated with the production of Telomer Alcohol Advanced TKT. Other control equipment associated with the process are condensers E-14105 and E-14106.
AF-002	AS-010	(C-1437)	A Batch Distillation Column where specialty chemicals are produced utilizing distillation.
AF-003	AQ-004	(TK-1402)	14,100 Gallon Chemical Storage Tank.
AF-004	AQ-005	(TK-1403)	20,300 Gallon Chemical Storage Tank.
AF-005	AQ-016	(TK-1449)	20,000 Gallon Chemical Storage Tank.
AF-006	AQ-022	(TK-1450)	20,303 Gallon Chemical Storage Tank.
AF-007	AR-013	(TK-1469)	37,000 Gallon Chemical Storage Tank.
AF-008		-(V14100)	15,000 Gallon Chemical Storage Tank.
AF-009	AS-003	(TK-1442)	8,500 Gallon Chemical Storage Tank.
AF-010	AS-004	(TK-1443)	8,000 Gallon Chemical Storage Tank.
AF-011	AS-005	(TK-1444)	15,228 Gallon Chemical Storage Tank.
AF-012	AS-006	(TK-1445)	15,000 Gallon Chemical Storage Tank.
AF-013	AX-097	(TK-1454)	1,028 Gallon Chemical Storage Tank.
AF-014	AX-098	(TK-1455)	1,028 Gallon Chemical Storage Tank.
AG-000	**No. 6 UNIT SEMI-WORKS/PILOT PLANT PROCESS (Research and Development)**		
AG-001	AL-000	(ST-2)	A Semi-Works Scrubber has emissions associated with the production of specialty chemicals utilizing various techniques. Other control equipment associated with the processes are condensers E-1800, E-1578, E-11577, and E-6500-1.
AG-002	AN-000	(ST-1)	A Semi-Works Scrubber has emissions associated with the production of specialty chemicals utilizing various techniques.
AG-003	AN-001	(ST-4)	A Pilot Plant Scrubber has emissions associated with the production of specialty chemicals utilizing various techniques.
AG-004	AM-001	(ST-3)	A Pilot Plant Scrubber has emissions associated with the production of specialty chemicals utilizing various techniques.
AG-005		(C-1434)	A Semi-Works Scrubber having emissions associated with the production of specialty chemicals utilizing various techniques.
AG-006		(C-1578)	A Semi-Works Scrubber having emissions associated with the production of specialty chemicals utilizing various techniques.
AG-007	AM-002	(TK6000-3)	7,614 Gallon Chemical Storage Tank.
AG-008	AM-003	(TK6000-4)	7,614 Gallon Chemical Storage Tank.
AG-009	AM-004	(TK6000-5)	7,614 Gallon Chemical Storage Tank.

Emission Point	Formerly Known As	Facility Ref. No.	Description
AG-010	AM-005	(TK6000-6)	7,614 Gallon Chemical Storage Tank.
AG-011	AM-006	(TK6000-2)	7,614 Gallon Chemical Storage Tank.
AG-012	AM-007	(TK6000-1)	7,614 Gallon Chemical Storage Tank.
AG-013	AM-008	(TK20000-1)	20,000 Gallon Chemical Storage Tank.
AG-014	AM-009	(TK10000-1)	10,000 Gallon Chemical Storage Tank.
AG-015	AM-010	(TK10000-2)	10,000 Gallon Chemical Storage Tank.
AG-016	AM-011	(TK10000-3)	10,000 Gallon Chemical Storage Tank.
AP-000	NO. 7 BATCH SPECIALTY UNIT PROCESS		
AP-001	AR-001	(C-1915)	A General Purpose Scrubber has emissions associated with the production of specialty chemicals utilizing various processes. Other control equipment associated with the process are condensers E-1900, E-1910, and E-1930.
AP-002	AR-002	(C-1905)	An Acid Gas Scrubber has emissions associated with the production of specialty chemicals utilizing various processes.
AP-003	AQ-018	(TK-1613)	55,000 Gallon Chemical Storage Tank.
AP-004	AR-003	(TK-1912)	10,000 Gallon Chemical Storage Tank.
AP-005	AR-004	(TK-1916)	10,000 Gallon Chemical Storage Tank.
AP-006	AR-005	(TK-1924)	15,000 Gallon Chemical Storage Tank.
AP-007	AR-006	(TK-1928)	10,000 Gallon Chemical Storage Tank.
AP-008	AR-007	(TK-1936)	15,000 Gallon Chemical Storage Tank.
AP-009	AR-008	(TK-1938)	15,000 Gallon Chemical Storage Tank.
AP-010	AR-009	(TK-1944)	10,000 Gallon Chemical Storage Tank.
AP-011	AR-010	(TK-1946)	10,000 Gallon Chemical Storage Tank.
AP-012	AR-011	(TK-1952)	12,500 Gallon Chemical Storage Tank.
AP-013	AR-012	(TK-1954)	10,000 Gallon Chemical Storage Tank.
AH-000	**No. 1 NITRATION UNIT PROCESS**		
AH-001	AD-001		Nitration #1 Meissner Unit Absorption Column where emissions are vented from the nitration production unit, Nitric Acid Concentrator, and MNT Stripper; however, under normal operating conditions the emissions vent to AA-010.
AH-002	AD-002		Sulfuric Acid Concentrator.
AH-003	AQ-019	(MS-514)	424,453 Gallon Chemical Storage Tank.
AH-004	AQ-020	(TK-1041)	230,711 Gallon Chemical Storage Tank.
AH-005	AV-007	(TK-1609)	88,122 Gallon Chemical Storage Tank.
AH-006	AV-008	(TK-1611)	88,122 Gallon Chemical Storage Tank.
AH-007	AV-009	(TK-1607)	271,650 Gallon Chemical Storage Tank.
AH-008	AV-010	(TK-501)	16,919 Gallon Chemical Storage Tank.
AH-009	AV-013	(TK-1043)	15,000 Gallon Chemical Storage Tank.
AH-010	AV-023	(TK-1612)	88,000 Gallon Chemical Storage Tank.
AH-011	AX-001	(TK-1031)	845,968 Gallon Chemical Storage Tank.
AH-012	AX-002	(TK-1042)	100,973 Gallon Chemical Storage Tank.
AH-013	AX-004	(MF-113B)	46,616 Gallon Chemical Storage Tank.
AH-014	AX-005	(T-503)	635,416 Gallon Chemical Storage Tank.
AH-016	AX-014	(D-351)	370 Gallon Chemical Storage Tank.
AH-017	AX-018	(MF-113A)	46,616 Gallon Chemical Storage Tank.
AH-018	AX-019	(MF-506)	46,616 Gallon Chemical Storage Tank.
AH-019	AX-020	(MF-601)	632,408 Gallon Chemical Storage Tank.

Emission Point	Formerly Known As	Facility Ref. No.	Description
AH-020	AX-023	(MF-605)	69,170 Gallon Chemical Storage Tank.
AH-021	AX-024	(MF-610)	46,616 Gallon Chemical Storage Tank.
AH-022	AX-031	(MS-307A)	1,973 Gallon Chemical Storage Tank.
AH-023	AX-032	(MS-307B)	1,973 Gallon Chemical Storage Tank.
AH-024	AX-033	(MS-307C)	1,973 Gallon Chemical Storage Tank.
AH-025	AX-042	(MS-501)	11,515 Gallon Chemical Storage Tank.
AH-026	AX-043	(MS-503A)	5,969 Gallon Chemical Storage Tank.
AH-027	AX-044	(MS-503B)	5,969 Gallon Chemical Storage Tank.
AH-028	AX-045	(MS-504A)	10,152 Gallon Chemical Storage Tank.
AH-029	AX-046	(MS-504B)	10,152 Gallon Chemical Storage Tank.
AI-000	**No. 2 NITRATION UNIT PROCESS**		
AI-001	AC-003		The Nitration #2 Unit Scrubber has emissions from the nitration production unit, Benzene Stripper, and MNB Stripper; however, under normal operating conditions the emissions vent to AA-010.
AI-002	AQ-023	(T-502)	845,968 Gallon Chemical Storage Tank.
AI-003	AV-001	(T-501)	1,265,890 Gallon Chemical Storage Tank.
AI-004	AV-002	(MF-112A)	74,500 Gallon Chemical Storage Tank.
AI-005	AV-003	(MF-112B)	46,616 Gallon Chemical Storage Tank.
AI-006	AX-007	(58-T)	436,868 Gallon Chemical Storage Tank.
AI-007	AX-047	(MS-513)	433,136 Gallon Chemical Storage Tank.
AJ-000	**BATCH STILLS PROCESS**		
AJ-001	AK-001	(C-503)	A Batch Still Vent has emissions associated with the production of specialty chemicals which utilize batch distillation to remove impurities. Other control equipment associated with the process is condenser E-561.
AJ-002	AK-002	(C-604)	A Batch Still Vent has emissions associated with the production of specialty chemicals which utilize batch distillation to remove impurities. Other control equipment associated with the process is condenser E-661.
AJ-003	AV-016	(TK-1050)	16,919 Gallon Chemical Storage Tank.
AJ-004	AV-017	(TK-1051)	16,919 Gallon Chemical Storage Tank.
AJ-005	AV-018	(TK-1052)	16,919 Gallon Chemical Storage Tank.
AJ-007	AV-020	(TK-1055)	16,919 Gallon Chemical Storage Tank.
AJ-008	AX-016	(DT-1040A)	1,237 Gallon Chemical Storage Tank.
AJ-009	AX-017	(DT-1040B)	1,237 Gallon Chemical Storage Tank.
AJ-010	AX-062	DT-606A	1,237 Gallon Chemical Storage Tank.
AJ-011	AX-063	DT-606B	1,237 Gallon Chemical Storage Tank.
AJ-012	AX-065	(TK-1017)	16,919 Gallon Chemical Storage Tank.
AJ-013	AX-066	(TK-1018)	7,520 Gallon Chemical Storage Tank.
AJ-014	AX-067	(TK-1019)	7,520 Gallon Chemical Storage Tank.
AJ-015	AX-068	(TK-1020)	16,919 Gallon Chemical Storage Tank.
AJ-016	AX-069	(TK-1021)	16,919 Gallon Chemical Storage Tank.
AJ-017	AX-071	(TK-1024)	7,520 Gallon Chemical Storage Tank.
AJ-019	AX-073	(TK-1026)	16,919 Gallon Chemical Storage Tank.
AJ-020	AX-074	(TK-1027)	16,919 Gallon Chemical Storage Tank.
AJ-021	AX-075	(TK-1028)	7,520 Gallon Chemical Storage Tank.
AJ-022	AX-076	(TK-1029)	7,520 Gallon Chemical Storage Tank.

Emission Point	Formerly Known As	Facility Ref. No.	Description
AJ-023	AX-077	(TK-1030)	7,520 Gallon Chemical Storage Tank.
AJ-024	AX-079	(TK-1035)	7,520 Gallon Chemical Storage Tank.
AJ-026	AX-081	(TK-1056)	26,500 Gallon Chemical Storage Tank.
AJ-027	AX-102	(TK-1610)	16,919 Gallon Chemical Storage Tank.
AK-000	**WASTEWATER TREATMENT PROCESS**		
AK-001	AP-008	(V-1172)	The Wastewater Treatment Scrubber Vent has emissions associated with the treatment of wastewater from the Nitration Unit.
AK-002	AP-001	(TK-1163)	508,000 Gallon Rainwater Storage Tank.
AK-003	AP-005	(TK-1162)	88,122 Gallon Chemical Storage Tank.
AK-004	AX-082	(TK-1057)	9,400 Gallon Chemical Storage Tank.
AK-005	AX-083	(TK-1058)	9,400 Gallon Chemical Storage Tank.
AK-006	AX-084	(TK-1059)	4,669 Gallon Chemical Storage Tank.
AK-007	AX-085	(TK-1060)	13,506 Gallon Chemical Storage Tank.
AK-008	AX-087	(TK-1119)	8,500 Gallon Wastewater Tank.
AK-009	AX-088	(TK-1120)	1,000 Gallon Chemical Storage Tank.
AK-010	AX-120	(V-1114)	9,305 Gallon Chemical Storage Tank.
AK-011	AX-126	(V-1121X)	1,400 Gallon Chemical Storage Tank.
AK-012	AX-230	(TK-1158)	9,400 Gallon Chemical Storage Tank.
AL-000	**MNT DISTILLATION PROCESS**		
AL-001	AE-001		MNT #1 Vacuum Vent from the Nitrotoluene Distillation Column. Other control equipment associated with the process is reflux cooler TT-502.
AL-002	AE-002		MNT #2 Vacuum Vent from the Nitrotoluene Distillation Column. Other control equipment associated with the process are reflux cooler E-551 and condenser E-552.
AL-003	AE-003		Toluene Stripper Column, where trace amounts of Toluene are removed from crude Nitrotoluene. Other control equipment associated with the process is condenser E-308.
AL-004	AE-004		MNT #3 Vacuum Vent from the Nitrotoluene Distillation Column. Other control equipment associated with the process is condenser E-542.
AM-000	**BATCH STILLS AS-309 AND AS-310**		
AM-001	AJ-001		The Scrubber Vent for Batch Stills AS-309 and AS-310 has emissions associated with the removal of contaminants from process water and the production of specialty chemicals via batch distillation.
AN-000	**EFFLUENT SYSTEM**		
AO-000	**NITRIC ACID PLANT**		
AO-001		(C-1202)	Nitric Acid Plant Exhaust Stack
AO-002	AQ-003	(TK-1602)	180,473 Gallon Chemical Storage Tank.

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). [Ref.: APC-S-1, Section 3.1]

(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.

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
Facility Wide				
Facility-Wide including all sources of fugitive emissions	Federally Enforceable Permit to Construct issued May 3, 1999 and modified October 1, 1999.	3.B.13	Individual HAP	9.9 TPY
			Total HAPs	24.9 TPY
			VOC	71.7 TPY
Benzene Operations Areas	NESHAP, Subpart J, 40 CFR 61.110	3.B.14	Benzene (VHAP)	Leak Detection
	NESHAP, Subpart FF, 40 CFR 61.340	3.B.20	Benzene from Facility Waste	<10.0 megagrams/year
FUEL BURNING EQUIPMENT (AA-000)				
AA-001, AA-002, AA-004, and AA-005	APC-S-1, Section 3.4(a)(2)	3.B.1	PM	$E=0.8808*I^{-0.1667}$
	APC-S-1, Section 4.1(a)	3.B.3	SO_2	4.8 lbs/MMBTU
	APC-S-1, Section 3.1 APC-S-1, Section 3.2	3.A.1 3.A.2	Opacity	40%
	Title V Operating Permit issued December 1, 1999.	3.B.5	Fuel Restriction	Natural Gas Only
AA-003	APC-S-1, Section 3.4(a)(2)	3.B.1	PM	$E=0.8808*I^{-0.1667}$
	APC-S-1, Section 4.1(a)	3.B.3	SO_2	4.8 lbs/MMBTU
	Title V Operating Permit issued December 1, 1999.	3.B.5	Fuel Restriction	Natural Gas and Vent Gas for AA-003
AA-006, AA-007, and AA-008	APC-S-1, Section 3.4(a)(1)	3.B.2	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.3	SO_2	4.8 lbs/MMBTU
	Title V Operating Permit issued December 1, 1999.	3.B.5	Fuel Restriction	Natural Gas Only
AA-009	Federally Enforceable Permit to Construct issued on February 13, 1990, and modified on October 1, 1999. MHWM Permit HW-90-031-01	3.B.7	SO_2	3.6 lb/hr and 15.8 TPY
			NO_x	9.0 lb/hr and 39.4 TPY
			Waste	Produced on-site only and limited concentrations of metals (see Permit Condition 3.B.7)
		3.B.8	Waste Heat Content	Not less than 5,000 BTU/lb
			Waste Sulfur Content	Not to exceed 0.1% by weight
		3.B.7	Opacity	10 %
	NSPS, Subpart Dc, 40 CFR 60.40c and 60.48c(g)	3.B.11	Opacity	20%
	Title V Operating Permit issued December 1, 1999.	3.B.5	Fuel Restriction	Natural Gas and Waste Organic

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-009	NESHAP, Subpart EEE, 40 CFR 63.1200	3.B.9 (October 14, 2008 Compliance Date)	PM	0.013 grains/dscf, corrected to 7% O_2
			CO	100 ppmv, over an hourly rolling average @ 7% O_2
			Hydrocarbons	10 ppmv, over an hourly rolling average @ 7% O_2 and reported as propane
			HCl and Chlorine Gas	32 ppmv, combined emissions, expressed as Cl^- equivalents and corrected to 7% O_2
			Dioxins and Furans	0.20 ng TEQ/dscm, corrected to 7% O_2, or 0.40 ng TEQ/dscm corrected to 7% O_2 provided that the combustion gas temperature at the inlet to the initial particulate matter control device is 400°F
			Mercury	130 :g/dscm corrected to 7% O_2
			Lead and Cadmium	230 :g/dscm, combined emissions, corrected to 7% O_2
			Arsenic, Beryllium, and Chromium	92 :g/dscm, combined emissions, corrected to 7% O_2
			DRE	99.99% for each POHC, and 99.999% for dioxin-listed hazardous wastes
		3.B.6	Temperature	Reduction Furnace >2245.2°F HRA Reoxidation Furnace > 1739.2°F HRA Baghouse Inlet < 372.4°F HRA
			Flue Gas Flowrate	< 7502.3 scfm
			Feed Rate	Waste <1664.2 lb/hr 1-hour average Ash < 4.77 lb/hr 12-hour average Low Volatile Metals < 1.386 lb/hr 12-hr avg. Semivolitale metals < 0.857 lb/hr 12-hr avg. Chlorine/chloride<0.7 lb/hr 12-hr avg.
			Atomizing Steam Pressure	=> 20 psi
AA-010	APC-S-1, Section 3.4(a)(1)	3.B.2	PM	0.6 lbs/MMBTU
	APC-S-1, Section 4.1(a)	3.B.3	SO_2	4.8 lbs/MMBTU
	Federally Enforceable Permit to Construct issued on October 26, 1993	3.B.12	NO_x	34.84 lb/hr and 152.6 TPY
			CO	0.228 lb/hr and 1.0 TPY
			VOC	0.700 lb/hr and 3.1 TPY
	Title V Operating Permit issued December 1, 1999.	3.B.5	Fuel Restriction	Natural Gas and Vent Gas
No. 1 HYDROGENATION UNIT PROCESS (AB-000)				
No. 2 HYDROGENATION UNIT PROCESS (AC-000)				
AC-003	NESHAP, Subpart J, 40 CFR 61.110	3.B.14	Benzene (VHAP)	Leak Detection

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AC-004	NESHAP, Subpart FF, 40 CFR 61.340	3.B.20	Benzene from Facility Waste	<10.0 megagrams/year
No. 3 HYDROGENATION UNIT PROCESS (AD-000)				
AD-000	NSPS, Subpart VV, 40 CFR 60.480	3.B.15	VOC	Leak Detection
No. 4 HYDROGENATION UNIT PROCESS (AE-000)				
AE-000	NSPS, Subpart VV, 40 CFR 60.480	3.B.15	VOC	Leak Detection
AE-002	NSPS, Subpart NNN, 40 CFR 60.660	3.B.19	VOC	Maintain a TRE index > 8.0
No. 5 UNIT PROCESS (AF-000)				
AF-001, AF-002	APC-S-1 4(2)(a)	3.B.4	SO_2	<500 ppm SO_2.
No. 6 UNIT PROCESS (AG-000)				
AG-001, AG-002, AG-003, AG-004, AG-005, AG-006	APC-S-1 4(2)(a)	3.B.4	SO_2	<500 ppm SO_2.
No.7 BATCH SPECIALTY INIT PROCESS (AP-000)				
AP-001, AP-002	APC-S-1 4(2)(a)	3.B.4	SO_2	<500 ppm SO_2.
No. 1 NITRATION PROCESS (AH-000)				
AH-000	NSPS, Subpart VV, 40 CFR 60.480	3.B.15	VOC	Leak Detection & Repair
	NESHAP, Subpart J, 40 CFR 61.110	3.B.14	Benzene (VHAP)	Leak Detection & Repair
AH-001	NESHAP, Subpart FF, 40 CFR 61.340	3.B.20	Benzene from Facility Waste	<10.0 megagrams/year
No. 2 NITRATION PROCESS (AI-000)				
AI-000	NSPS, Subpart VV, 40 CFR 60.480	3.B.15	VOC	Leak Detection
	NESHAP, Subpart J, 40 CFR 61.110	3.B.14	Benzene (VHAP)	Leak Detection
AI-001	NESHAP, Subpart FF, 40 CFR 61.340	3.B.20	Benzene from Facility Waste	<10.0 megagrams/year
AI-002, AI-003, and AI-004	NESHAP, Subpart Y, 40 CFR 61.270	3.B.17	Benzene Storage Tank	Fixed roof and an internal floating roof.
BATCH STILLS PROCESS (AJ-000)				
MNT STILLS PROCESS (AL-000)				
AL-000	NSPS, Subpart VV, 40 CFR 60.480	3.B.15	VOC	Leak Detection & Repair
WASTEWATER TREATMENT PROCESS (AK-000)				

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
NITRIC ACID PLANT (AO-000)				
AO-001	NSPS, Subpart G, 40 CFR 60.70	3.B.16	NO_x	3.0 lb per ton (1.5 kg/metric ton) acid produced, expressed as NO_2 and 39.42 TPY
	Federally Enforceable Permit to Construct issued on August 22, 1989	3.B.18	Opacity	10%

3.B.1 For Emission Points AA-001, AA-002, AA-003, AA-004, and AA-005, the permittee shall not have particulate emissions from fossil fuel burning installations of greater than 10 million BTU per hour heat input that exceeds the emission rate as determined by the relationship

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

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

3.B.2 For Emission Points AA-006, AA-007, AA-008, and AA-010 the permittee shall not emit particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input in excess of 0.6 pounds per million BTU per hour heat input. [Ref: APC-S-1, Section 3.4(a)(1)]

3.B.3 For Emission Points AA-001, AA-002, AA-003, AA-004, AA-005, AA-006, AA-007, AA-008, and AA-010 the permittee shall not discharge sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer in excess of 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. [Ref: APC-S-1, Section 4.1(a)]

3.B.4 For Emission Points AP-001, AP-002, AF-001, AF-002, AG-001, AG-002, AG-003, AG-004, AG-005, and AG-006 the permittee shall not emit gas from any process equipment in excess of 500 ppm sulfur oxides measured as sulfur dioxide. [Ref: APC-S-1,4.2(a)]

3.B.5 For the fuel burning equipment:

(a) The equipment associated with Emission Points AA-001, AA-002, AA-004, AA-005, AA-006, AA-007, AA-008 and AA-009 shall burn natural gas only;

(b) The equipment associated with Emission Point AA-003 and AA-010 shall burn natural gas and vent gas only;

(c) The equipment associated with Emission Point AA-009 shall burn natural gas and waste organic only;

[Re: Title V Permit Issued Dec. 1, 1999]

3.B.6 For Emission Point AA-009, to remain compliant with the destruction and removal efficiency (DRE) standard, the dioxins and furans emission standard, the particulate matter emissions standard, and the metals standards the permittee must comply with the following operating limits while burning hazardous waste:

(a) *Minimum reduction furnace temperature.* The hourly rolling average of the

reduction furnace temperature measured at **TSL-1104A** shall be greater than or equal to 2245.5°F. [Ref: 40 CFR 63.1209(j)(1)(ii) & (k)(2)]

(b) *Minimum re-oxidation furnace temperature.* The hourly rolling average of the re-oxidation furnace temperature measured at **TSL-1102A** shall be greater than or equal to 1739.2 °F. [[Ref: 40 CFR 63.1209(j)(1)(ii) & (k)(2)]

(c) *Maximum flue gas flowrate.*

(1) The hourly rolling average of the combined combustion gas air flowrate measured at **FT-1110 for the reduction furnace combustion air and FT-1108 for the re-oxidation chamber combustion air** shall not exceed 3990.7 scfm. [Ref: 40 CFR 63.1209(j)(2), (k)(2) & (m)(2)]

(2) The hourly rolling average of the stack gas flow rate shall not exceed 7502.3 scfm. [TV Operating Permit issued (ISSUANCE DATE)]

(d) *Maximum hazardous waste feed rate.* The total combined hourly rolling average for the No. 1 hazardous waste feed measured at (PID) and the No. 2 hazardous waste feed measured at (PID) shall not exceed 1664.2 lb/hr. [Ref: 40 CFR 63.1209(j)(3) & (k)(4)]

(e) Operation of waste firing system.

(1) Atomizing steam pressure. The atomizing steam differential pressure shall be no less than 20 psi. The atomizing steam differential pressure shall be logged in the operating record no less than once per hour. The atomizing steam differential pressure shall be determined as follows:

Waste Feed #1
(PI-505) - (PI-610) = 20 psi

Waste Feed #2
(PI-515) - (PI-630) = 20 psi
[Ref: 40 CFR 63.1209(j)(4)]

(f) *Gas temperature at the inlet to a dry particulate matter control device*. The hourly rolling average of the temperature at the inlet of the baghouse measured at **TT-1111C and TIC-1111** shall not exceed 372.4°F. [Ref: 40 CFR 63.1209(k)(1)]

(g) *Maximum ash feedrate.* The maximum 12-hour rolling average limit for ash feedrate shall not exceed 4.77 lb/hr. [Ref: 40 CFR 63.1209(m)(3)]

(h) Maximum feed rate of semivolatile and low volatile metals. [Ref: 40 CFR

63.1209(n)(2)]

(1) The maximum 12-hour rolling average limit for the feedrate of cadmium and lead, combined, in all feedstreams shall be no greater than 0.9 lb/hr; and

(2) The maximum 12-hour rolling average limit for the feedrate of arsenic, beryllium, and chromium, combined, shall be no greater than 0.9 lb/hr.

(i) *Mercury*. The maximum 12-hour rolling average limit for the feedrate of mercury shall be no greater than 0.345 g/hr. [Ref: 40 CFR 63.1209(l)(1)]

(j) *Maximum total chlorine and chloride feedrate.* The maximum 12-hour rolling average feedrate of total chlorine and chloride shall be no greater than 0.7 lb/hr. [Ref: 40 CFR 63.1209(o)(1)]

3.B.7 For Emission Point AA-009, the permittee is limited by the following requirements from the Permit to Construct issued on May 3, 1999, and modified on October 1, 1999.

SO2 emissions shall be limited to 3.6 lb/hr and 15.8 tons/year; NOx emissions shall be limited to 9.0 lb/hr and 39.4 tons/year. Only non-chlorinated waste generated on-site may be incinerated. The heat content of the waste feed shall not be less than 5,000 Btu/lb. The sulfur content of the waste feed shall not exceed 0.1% by weight. . [Ref: Permit to Construct issued on May 3, 1999, and modified on October 1, 1999]

3.B.8 Emission Point AA-009 is affected by and shall comply with all applicable Mississippi Hazardous Waste Management Regulations (MHWMR), including Hazardous Waste Management Permit HW-90-031-01. [Ref: Title V Permit issued Dec. 1, 1999]

3.B.9 Emission Point AA-009, is affected by and shall comply with the National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors 40 CFR Part 63 Subpart EEE. Hazardous waste combustors are also subject to applicable requirements under 40 CFR Parts 260-270. [Ref.: 40 CFR 63.1219].

(a) On or after October 14, 2008, the permittee shall not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) Dioxins and furans in excess of 0.20 ng TEQ/dscm corrected to 7% oxygen; or 0.40 ng TEQ/dscm corrected to 7% oxygen provided that the combustion gas temperature at the inlet to the initial particulate matter control device is 400^{o}F or lower based on the average of the test run average temperatures

(2) Mercury in excess of 130 µg/dscm corrected to 7% oxygen;

(3) Lead and cadmium in excess of 230 g/dscm, combined emissions, corrected to 7% oxygen;

(4) Arsenic, beryllium, and chromium in excess of 92 g/dscm, combined emissions, corrected to 7 percent oxygen;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7% oxygen, and hydrocarbons in excess of 10 parts per million by volume over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7% oxygen, and reported as propane, at any time during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7); or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 % oxygen, and reported as propane;

(6) Hydrogen chloride and chlorine gas (total chlorine) in excess of 32 parts per million by volume, combined emissions, expressed as a chloride (Cl(−)) equivalent, dry basis and corrected to 7 percent oxygen; and

(7) Particulate matter in excess of 0.013 gr/dscf corrected to 7 percent oxygen.

[Ref: 40 CFR 63.1219(a)]

(b) The permittee shall achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) identified in the Compliance Performance Test Plan, and a DRE of 99.9999% for dioxin-listed hazardous wastes, if applicable. The permittee shall calculate the DRE for each POHC from the following equation:

$$DRE = 1-(W_{out}-W_{in}) \times 100\%$$

where W_{in} is the mass feed rate of one POHC in a waste feedstream and W_{out} is the mass emission rate of the same POHC in exhaust emissions prior to release to the atmosphere.

[Ref: 40 CFR 63.1219(c)]

3.B.10 For Emission Point AA-009, the emission standards and operating requirements set forth in this subpart apply at all times except:

(a) During periods of startup, shutdown, and malfunction; and

(b) When hazardous waste is not in the combustion chamber and the permittee has documented compliance in the operating record with all otherwise applicable requirements and standards.

[Ref: 40 CFR 63.1206(b)]

3.B.11 Emission Point AA-009 is affected by and shall comply with the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60, Subpart Dc.

3.B.12 For Emission Point AA-010, the permittee is limited by the following limitations from the Federally Enforceable Permit to Construct issued on October 26, 1993:

PM	0.6 lb/MMBTU
SO_2	4.8 lb/MMBTU
NO_x	34.84 lb/hr and 152.6 TPY
CO	0.228 lb/hr and 1.0 TPY

[Ref: to Construct issued on October 26, 1993]

3.B.13 The permittee is limited by facility-wide emission limitations established through the Federally Enforceable Permit to Construct issued on May 3, 1999 and modified October 1, 1999. Emissions are limited to no more than 9.9 tons per year for any single HAP, no more than 24.9 tons per year for total HAP emissions, and no more than 71.7 tons per year for total volatile organic compounds. The permittee is also limited by the above referenced Construction Permit to a list (see Appendix D) of specific HAPs that can be used or stored at the facility. This permit allows the permittee flexibility to modify or change HAPs from the processes outlined in this permit or stored in tanks presented in the Title V application; however, HAP changes that would be subject to federal standards are not allowed without proper permitting. [Ref: Permit to Construct issued on May 3, 1999 and modified October 1, 1999]

3.B.14 Emission Points AC-003, AH-000 and AI-000 are affected by and shall comply with the National Emission Standards for Equipment Leaks (Fugitive Emission Sources) of Benzene., 40 CFR Part 61, Subpart J. While the provisions of this permit condition are effective, an emission point that is also subject to permit condition 3.B.15 will only be required to comply with the provisions of this permit condition. [Ref: 40 CFR Part 61, Subpart J]

3.B.15 Emission Points AD-000, AE-000, AH-000 and AI-000 and AL-000 are affected by and shall comply with the New Source Performance Standards for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, 40 CFR Part 60 Subpart VV. [Ref: 40 CFR Part 60 Subpart VV and Permit to Construct issued January 27, 1987]

3.B.16 Emission Point AO-001 is affected by and shall comply with the New Source Performance

Standards for Nitric Acid Plants, 40 CFR Part 60, Subpart G.

For Emission Point AO-001, the permittee shall not discharge into the atmosphere nitrogen oxides, expressed as NO_2, in excess of 1.5 kg per metric ton of acid produced (3.0 lb per ton) and shall not exhibit 10 percent opacity, or greater. [Ref.: 40 CFR 60.70, Subpart G]

3.B.17 For Emission Points AI-002, AI-003, and AI-004, the permittee is affected by and shall comply with the National Emission Standards for Benzene Emissions from Benzene Storage Vessels, 40 CFR Part 61, Subpart Y.

These benzene storage vessels shall be equipped with a fixed roof and an internal floating roof. [Ref.: 40 CFR 61.270, Subpart Y]

3.B.18 For Emission Point AO-001, the permittee is limited by the Federally Enforceable Permit to Construct issued on August 22, 1989.

3.B.19 Emission Point AE-002 will be affected by and shall comply with the Standards of Performance for Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations , 40 CFR Part 60, Subpart NNN, if the referenced equipment produces any chemical listed in §60.667.

Once subject, the permittee shall comply with limitations listed below for each vent stream on and after the date on which the initial performance test required by §60.8 and §60.664 is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first.

Emission Point AE-002 shall have a total resource effectiveness (TRE) index value greater than 8.0. [Ref.: 40 CFR 60.660, Subpart NNN]

3.B.20 The permittee is affected by and shall comply with the National Emission Standards for Benzene Waste Operations, 40 CFR Part 61, Subpart FF.

The permittee shall limit the total annual benzene quantity from facility waste to less than 10.0 megagrams per year. The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent. [Ref.: 40 CFR 61.340, Subpart FF]

C. Insignificant and Trivial Activity Emission Limitations & Standards

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

3.C.1 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. [Ref.: APC-S-1, Section 3.4(a)(1)]

3.C.2 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. [Ref.: APC-S-1, Section 4.1(a)]

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

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

where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hour.[Ref.: APC-S-1, Section 3.4(a)(2)]

D. Operation and Maintenance

3.D.1 The permittee shall establish a training and certification program, in accordance with §63.1206(c)(6), for each person who has responsibilities that may affect emissions of hazardous air pollutants from the incinerator. [Ref.: 40 CFR 63.1206(c)(6)]

3.D.2 The permittee shall prepare, update as necessary, and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the incinerator, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants. The plan shall be consistent with § 63.1206(c)(7)(i) and (ii) and shall prescribe how the permittee will operate and maintain the incinerator in a manner consistent with good air pollution practices for minimizing emissions. [Ref.: 40 CFR 63.1206(c)(7)(i)]

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 For Emission Point AA-009, the permittee shall comply with any applicable requirements and limitations of 40 CFR 63, Subpart EEE prior to the compliance deadline of October 14, 2008. A Compliance Performance Test Plan shall be submitted to the MDEQ no later than October 14, 2008. Any request for an alternative to this standard not delegated to the DEQ under §63.1206, must be approved by the EPA.

4.4 Nothing in this permit shall be construed to waive any challenge to the application of the credible evidence rule in the context of any future enforcement proceeding.

SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

A. General Monitoring, Recordkeeping and Reporting Requirements

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

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

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

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

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

(d) the analytical techniques or methods used;

(e) the results of such analyses; and

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

5.A.3 Except as otherwise specified herein, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings or archived 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 within sixty (60) days of both the January 1st through June 30th semi-annual reporting period and the July 1st through December 31st semi-annual reporting 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 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 that may result in an increase or change in the type of emissions.

B. Specific Monitoring and Recordkeeping Requirements

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number	Applicable Requirement
FACILITY-WIDE				
Facility-Wide including all sources of fugitive emissions	Individual HAP Total HAPs VOC	Calculate the HAP emissions (total and individual) and VOC emissions on a monthly basis and keep a 12-month rolling total of the emissions. The emissions shall be comprised of Process, Storage, Loading and Fugitive Emissions.	5.B.21	TV Permit issued December 1, 1999 Federally Enforceable Permit issued May 3, 1999 and modified October 1, 1999
Benzene Operations Area	Benzene from Facility Waste	Determine the total annual benzene quantity from facility waste annually and comply with recordkeeping requirements of 61.356 and reporting requirements of 61.357.	5.B.24	NESHAP, Subpart FF, 40 CFR 61.340
FUEL BURNING EQUIPMENT				
AA-001, AA-002, AA-003, AA-004, AA-005, AA-006, AA-007, AA-008 and AA-010	PM, SO_2	Monthly Fuel Monitoring. Records of heat input capacity, monthly records of the type, quality and heating value of all fuels combusted.	5.B.1	APC-S-6, Section III.A.3.a(2)
AA-003	Opacity	Weekly visible observations which may include the performance of a Visible Emission Evaluation (VEE) in accordance with EPA Reference Method 9 if emissions are observed.	5.B.26	
AA-009	Waste feed sulfur content	Monthly waste sulfur analysis.	5.B.2	APC-S-, Section III.A.3.a(2) and the Federally Enforceable PtC Feb. 13, 1990.
	NOx	Continuously monitor NOx emissions converted to units of applicable standards. Perform biennial stack tests.	5.B.2, 5.B.4	
	CO	Continously Monitor CO emissions. Perform biennial stack tests.	5.B.3(a), 5.B.4	40 CFR 63.1209(b) and the

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number	Applicable Requirement
				Federally Enforceable PtC Feb. 13, 1990.
	Waste feed metals, heat, and sulfur content	Monthly analysis of waste feed.	5.B.3(c)	40 CFR 63.1209(c)
	Opacity	Weekly visible observations which may include the performance of a Visible Emission Evaluation (VEE) in accordance with EPA Reference Method 9 if emissions are observed.	5.B.26	APC-S-6. Section III.A.3.a(2)
	Fuel Use, Type, Quality and Heating Value	Conduct monthly fuel monitoring	5.B.1	
AA-010	PM	No monitoring will be required due to the limitation on burning natural gas only, MOC	5.B.1	APC-S-1, Section 3.4(a)(1)
	SO_2	No monitoring will be required due to the limitation on burning natural gas only, MOC	5.B.1	APC-S-1, Section 4.1(a)
	NO_x	Biennial Stack Testing	5.B.8	Permit to Construct issued on October 26, 1993. TV Permit issued December 1 1999.
	CO			
	VOC			
	Opacity	Weekly visible observations which may include the performance of a Visible Emission Evaluation (VEE) in accordance with EPA Reference Method 9 if emissions are observed.	5.B.26	APC-S-6. Section III.A.3.a(2)
	Combustion Chamber Temperature	Continuously monitor and record	5.B.10	40 CFR 63.1209(b)
No. 1 HYDROGENATION UNIT PROCESS				
No. 2 HYDROGENATION UNIT PROCESS				
No. 3 HYDROGENATION UNIT PROCESS				
AD-000	VOC	Maintain records for use in determining exemptions as provided in 40 CFR 60.480(d)	5.B.12	NSPS, Subpart VV, 40 CFR 60.480
No. 4 HYDROGENATION UNIT PROCESS				
AE-000	VOC	Maintain records for use in determining exemptions as provided in 40 CFR 60.480(d)	5.B.12	NSPS, Subpart VV, 40 CFR 60.480
AE-002	VOC	Initial TRE performance tests. Recalculate TRE index based on changes in operation. Process recordkeeping.	5.B.19	NSPS, Subpart NNN, 40 CFR 60.660

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number	Applicable Requirement
		Semi-annual reporting of recordkeeping requirements.	5.B.20	40 CFR 60.665
No. 5 UNIT PROCESS				
AF-001, AF-002	SO2	Stack test once per permit period..	5.B.23	APC-S-1 4(2)(a)
No. 6 UNIT PROCESS				
AG-001, AG-002, AG-003, AG-004, AG-005, AG-006 and AG-004	SO_2	Stack test once per permit period..	5.B.23	APC-S-1 4(2)(a)
No. 7 BATCH SPECIALTY UNIT PROCESS				
AP-001, AP-002	SO_2	Stack test once per permit period..	5.B.23	APC-S-1 4(2)(a)
No. 1 NITRATION PROCESS				
AH-000	VOC	Maintain records for use in determining exemptions as provided in 40 CFR 60.480(d)	5.B.12	NSPS, Subpart VV, 40 CFR 60.480
No. 2 NITRATION PROCESS				
AI-002, AI-003, and AI-004	Benzene Storage Tanks	Visually Inspections and Repairing of Internal Floating Roofs	5.B.16	NESHAP, Subpart Y, 40 CFR 61.270
		Initial report describing controls	5.B.17	40 CFR 61.274
		Periodic inspection reports.	5.B.18	40 CFR 61.275
BATCH STILLS PROCESS				
WASTEWATER TREATMENT PROCESS				
NITRIC ACID PLANT				
AO-000	NO_x	Continuously Monitor / Reporting and Recordkeeping	5.B.13	NSPS, Subpart G, 40 CFR 60.70 & TVOP 12.1.99
	NO_x	Stack Testing	5.B.14	TVOP 12.1.99
	Opacity	Weekly visible observations which may include the performance of a Visible Emission Evaluation (VEE) in accordance with EPA Reference Method 9 if emissions are observed.	5.B.26	Permit to Construct issued on August 22, 1989.

5.B.1 For Emission Points AA-001, AA-002, AA-003, AA-004, AA-005, AA-006, AA-007, AA-008and AA-010, the permittee shall monitor and maintain monthly records on the type of fuel combusted. The permittee shall maintain records of natural gas supplier specifications and/or analysis data documenting the fuel higher heating value and sulfur content. This information shall be reported in accordance with Condition 5.A.4 and maintained in accordance with Condition 5.A.3.

For Emission Points AA-003 and AA-010 the permittee shall develop a monitoring plan for demonstrating compliance with the applicable SO_2 standard when combusting process vent gases. This plan shall be submitted to the DEQ for approval within 180 days of issuance of this permit. At a minimum, the plan shall include procedures for determining the higher heating value and sulfur content of the process vent gas or gases combusted in AA-003 and AA-010 and calculations for demonstrating compliance with the applicable SO_2 standard.

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

5.B.2 For Emission Point AA-009, the permittee shall continuously monitor and record the type of waste~~,~~ and nitrogen oxide (NO_x) emissions.

The permittee shall conduct monthly sampling of the waste feed for heat content (BTU/hr) and sulfur content (% by weight)~~.~~

The permittee shall calibrate, maintain, and operate continuous emission monitoring systems (CEMS) for continuously monitoring and recording the concentration by volume (dry basis) of nitrogen oxides (NOx) emissions, and the stack gas velocity and/or volumetric flowrate. The CEMS data will be used to determine compliance with the applicable emission limitations expressed in Section 3 of within this permit. These continuous monitoring systems shall meet or shall be consistent with the requirements and specifications under 40 CFR Part 60, Appendix B, and shall be consistent with the requirements of 40 CFR 60.7 and 60.13 and the quality assurance procedures specified in 40 CFR Part 60, Appendix F, including quarterly accuracy determinations and daily calibration drift tests for each continuous monitoring system.

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

The continuous monitoring system shall be operated and record data during all periods of the Hazardous Waste Incinerator, including periods of startup, shutdown, malfunction, or emergency conditions, except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks and zero span adjustments.

The permittee shall perform a conversion of the NOx concentration CMS collected data into units of applicable standards (e.g. lbs./hr, lbs./day, TPY) using 3-hour block averages.

This data, including all exceedances, will be maintained in log form in accordance with Condition 5.A.3 and shall be made available upon request from DEQ personnel. The permittee shall submit a summarized report of this data in accordance with Condition

5.A.4. (Ref.: APC-S-6, Section III.A.3.a(2) and the Federally Enforceable Permit to Construct issued on February 13, 1990 and modified October 1, 1999.)

5.B.3 For Emission Point AA-009, the permittee shall monitor as follows:

(a) The permittee must operate a carbon monoxide CEMS to demonstrate and monitor compliance with the carbon monoxide and hydrocarbon standard under Permit Condition 3.B.9(a)(5). The permittee must also use an oxygen CEMS to continuously correct the carbon monoxide level to 7 percent oxygen.

The permittee must calibrate, maintain, and continuously operate the CEMS in compliance with the quality assurance procedures provided in the appendix to 40 CFR Part 63, Subpart EEE and Performance Specifications 4B (carbon monoxide and oxygen in Appendix B, 40 CFR Part 60.

(b) The permittee must use continuous monitoring systems (CMS) (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under permit condition 3.B.6.

(1) The permittee shall operate maintain and calibrate the CMS devices in a manner consistent with the manufacturer specifications, unless otherwise approved by the MDEQ. The permittee shall calibrate each of these CMS devices, at a minimum, once per year.

(2) The CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds.

(3) The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required under this permit.

[Ref: 40 CFR 63.1209(b)]

(c) Prior to feeding the material, the permittee must obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits contained in permit conditions 3.B.6(g) through 3.B.6(j).

(1) The permittee must implement the feedstream analysis plan submitted to the MDEQ and record it in the operating record. The permittee must at a minimum perform a feed stream analysis on a monthly basis for the parameters contained in Permit Conditions 3.B.6(g) through 3.B.6(j) and 3.B.7.

(2) The permittee shall demonstrate continuous compliance with the feed rate limits under permit conditions 3.B.6(g) through 3.B.6(j) by monitoring and recording the feedrates as follows:

(i) Determine and record the value of the parameter for each feedstream by sampling and analysis or other method;

(ii) Determine and record the mass or volume flow rate of each feedstream by a CMS; and

(iii) Calculate and record the mass feedrate of the parameter per unit time.

[Ref: 40 CFR 63.1209(c)]

(d) The permittee shall demonstrate compliance with the Destruction Removal Efficiency (DRE) limitation by:

(1) Measuring the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone.

(2) Measuring the maximum combustion air flowrate as the sum of the reduction furnace combustion air and the re-oxidation furnace combustion air.

[Ref: 40 CFR 63.1209(j)]

5.B.4 For Emission Point AA-009, the permittee shall perform stack testing to demonstrate compliance with the standards under permit condition 3.B.7 by stack testing in accordance with the specified methods. The permittee shall perform the stack testing on or before March 1, 2010 and biennially thereafter. The permittee in lieu of this test requirement may use the test data for the relative accuracy test audit for the CO and NOx CEM's. Stack test reports shall be submitted within ninety (90) days after the test is completed.. For the purpose of compliance demonstration the permittee shall operate the source at maximum capacity but not less than 90% of the capacity, unless the permittee demonstrates that the compliance testing was performed at a rate that is representative of the normal operation of the source..

The permittee shall submit a written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ shall be notified in writing at least ten (10) days prior to the scheduled test date(s) so that an observer may be afforded the opportunity to witness the test(s). After the first successful submittal of an initial written test protocol in conjunction with the initial compliance test(s), the permittee may request that the resubmittal of a testing protocol be waived for subsequent testing by certifying in writing at least thirty (30) days prior to subsequent testing that all conditions for testing remain unchanged such that the original protocol can and will be followed.

5.B.5 For Emission Point AA-009, the permittee shall test as follows:

(a) The permittee shall conduct comprehensive performance testing every 61 months to demonstrate compliance with the standards under Permit Condition 3.B.9. The initial comprehensive performance test shall commence not later than October 14, 2009. The permittee must submit to the MDEQ a notification of intent to conduct a comprehensive performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least one year before the performance test and performance evaluation are scheduled to begin. The MDEQ will notify of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 9 months after receipt of the original plan

[Ref: 40 CFR 63.1207(d)(1) & (e)(1)(i)]

(b) The permittee shall conduct confirmatory performance testing no later than 31 months of commencing each comprehensive performance test to demonstrate compliance with the dioxin/furan emission standard when the source operates under normal operating conditions; and to conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the dioxin/furan emission standard under Permit Condition 3.B.9(a)(1). The Permittee shall submit to the MDEQ a notification of intent to conduct a confirmatory performance test and CMS performance evaluation and site-specific test plan and CMS performance evaluation test plan at least 60 calendar days before the performance test is scheduled to begin.

[Ref: 40 CRF 63/1207(d)(2) & (e)(1(ii)]

(c) The permittee shall make the site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before the initiation of the test. The permittee shall issue a public notice to all persons on the facility/public mailing list provided by the MDEQ announcing the availability of the test plans and the location where the test plans are available for review. The test plans must be accessible to the public for 60 calendar days, beginning on the date that the public notice is issued. The location must be unrestricted and provide access to the public during reasonable hours and provide a means for the public to obtain copies. The notification must include the following information at a minimum:

(1) The name and telephone number of the source's contact person;

(2) The name and telephone number of the regulatory agency's contact person;

(3) The location where the test plans and any necessary supporting documentation can be reviewed and copied;

(4) The time period for which the test plans will be available for public review; and

(5) An expected time period for commencement and completion of the performance test and CMS performance evaluation test.

[Ref: 40 CFR 63.1207(e)(2)]

5.B.6 For Emission Point AA-009, the permittee shall conduct and comply with all applicable monitoring, testing, and compliance requirements upon the established compliance date of the National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, 40 CFR 63.1206, 63.1207, 63.1208, and 63.1209 (see Appendix E).

5.B.7 For Emission Point AA-009, the permittee shall conduct and comply with all applicable notification, reporting, and recordkeeping requirements upon the established compliance date of the National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, 40 CFR 63.1210 and 63.1211, (see Appendix E).

5.B.8 For Emission Point AA-010, the permittee shall perform stack testing to demonstrate compliance with nitrogen oxides, carbon monoxide, and volatile organic compound emission limitations by stack testing in accordance with EPA Reference Methods 7, 10, and 25, respectively or those EPA approved equivalents (See Condition 5.A.6). The permittee shall perform the stack testing within 180 days of issuance of this permit and biennially thereafter. While performing the stack testing, the permittee shall continuously monitor and record the temperature (^{o}F) in the thermal oxidizer combustion chamber and submit the results with the stack test report. Stack test reports shall be submitted within thirty (30) days after the test is completed. For the purpose of compliance demonstration the permittee shall operate the source at maximum capacity but not less than 90% of capacity, unless the permittee demonstrates that the compliance testing was performed at a rate that is representative of the normal operation of the source.

The permittee shall submit a written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. Also, the DEQ shall be notified in writing at least ten (10) days prior to the scheduled test date(s) so that an observer may be afforded the opportunity to witness the test(s). After the first successful submittal of an initial written test protocol in conjunction with the initial compliance test(s), the permittee may request that the resubmittal of a testing protocol be waived for subsequent testing by certifying in writing at least thirty (30) days prior to subsequent testing that all conditions for testing remain unchanged such that the original protocol can and will be followed.

[Ref: Title V Permit issued December 1, 1999]

5.B.9 For Emission Point AA-010, the permittee shall continuously monitor and record the

temperature (^{o}F) in the thermal oxidizer combustion chamber.

[Ref: Title V Permit issued December 1, 1999]

5.B.10 The permittee shall record the processes (Emission Points AI-001, AH-001, AH-002, AB-001, AB-002, AC-001, and AC-002) vented to each control equipment (AA-003, and AA-010), the amount of time that the emissions vent directly to the atmosphere, and as described in permit conditions 1.23 and 1.24 a detailed analysis of why the control equipment was bypassed.

For the time Emission Points AI-001, AH-001, AH-002, AB-001, AB-002, AC-001, and AC-002 are vented to the atmosphere, emissions should be determined using the most recent stack tests and engineering calculations. A summarized log of these events shall be maintained and made available to DEQ personnel upon request and submitted in accordance with permit condition 5.A.4. Furthermore, these logs shall be maintained in accordance with permit condition 5.A.3

[Ref: Title V Permit issued December 1, 1999]

5.B.11 The permittee shall report above and beyond the requirements addressed in permit conditions 1.23 and 1.24, by telephone, all abnormal releases or spills of any chemicals, or other potentially hazardous materials which cause or may cause off-plant effects, and all process upsets or control equipment malfunctions which cause or may cause off-plant effects. Reporting shall be as follows:

(a) For incidents of less than 30-minute duration which do not endanger public health, the permittee shall report the details of the incident during normal office hours within 24 hours after return to normal operation.

(b) For incidents of 30-minute or greater duration which do not endanger public health, the permittee shall report the details as soon as possible after discovery. If the incident occurs during closed office hours, it shall be reported upon commencement of business the following day.

(c) For incidents of any duration which endanger or may endanger public health, the permittee shall report the details of the incident as soon as possible after discovery and shall do so through emergency channels, including contacting the Mississippi Emergency Management Agency (MEMA).

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

All reportable incidents shall be summarized in a written report semi-annually. This

report shall be filed in addition to any written incident reports which may be required on a case-by-case basis. For periods during which no reportable incidents occurred, a negative declaration shall be filed.

[Ref: .:Title V Operating Permit ISSUANCE DATE]

5.B.12 For Emission Points AD-000, AE-000, AH-000, AI-000 and AL-000 the permittee shall comply with the requirements of 40 CFR Part 60 Subpart VV (Attached in Appendix _). The permittee shall within 180 days of issuance of this permit submit a proposed plan which will include identification of any and all equipment affected by this subpart, such as, but not limited to pumps, compressors, pressure relief devices in gas/vapor service, connecting systems, open-ended valves or lines, valves, pressure relief services in liquid service and connectors, surge control vessels and bottoms receivers. The plan shall include specifics on plans to comply with this subpart and implementation dates. Upon approval of the plan, the permittee shall for all recordkeeping required by this subpart, submit this data in accordance with permit condition 5.A.4 and maintain it in accordance with permit condition 5.A.3. [Ref: 40 CFR Part 60 Subpart VV]

5.B.13 For Emission Point AO-001, the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides (NO_x). The pollutant gas mixtures under Performance Specification 2 and for calibration checks under §60.13(d) shall be nitrogen dioxide (NO_2). The span value shall be 500 ppm of NO_2.

The permittee shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton, TPY). The conversion factor shall be established by measuring emissions with the continuous monitoring system concurrent with measuring emissions with the applicable reference method tests. Using only that portion of the continuous monitoring emission data that represents emission measurements concurrent with the reference method test periods, the conversion factor shall be determined by dividing the reference method test data averages by the monitoring data averages to obtain a ratio expressed in units of the applicable standard to units of the monitoring data, i.e., kg/metric ton per ppm (lb/ton per ppm, TPY per ppm). The conversion factor shall be reestablished during any performance test or any continuous monitoring system performance evaluation.

The permittee shall record the daily production rate and hours of operation. For the purpose of reports required under §60.7(c), periods of excess emissions that shall be reported are defined as any 3-hour period during which the average nitrogen oxides emissions (arithmetic average of three contiguous 1-hour periods) as measured by a continuous monitoring system exceed the applicable standard. Excess emissions reports shall be submitted in accordance with 5.A.4. The permittee shall maintain records in accordance with permit condition 5.A.3 and the records shall be made available upon request by MDEQ personnel.

[Ref: TV operating permit issued December 1, 1999 & NSPS 40 CFR Part 60 Subpart G]

5.B.14 For Emission Point AO-001, the permittee shall perform stack testing within 180 days of issuance of this permit and biennially thereafter, to demonstrate compliance with nitrogen oxides emission limitations. Stack test reports shall be submitted within thirty (30) days after the test is completed. For the purpose of compliance demonstration the permittee shall operate the source at maximum capacity but not less than 90% of capacity, unless the permittee demonstrates that the compliance testing was performed at a rate that is representative of the normal operation of the source..

The permittee shall determine compliance with the NO_x standard by the following:

(a) The emission rate (E) of NO_x shall be computed for each run using the equation $E=(C_s*Q_{sd})/(P*K)$ where E is the emission rate of NO_x as NO_2, kg/metric ton (lb/ton) of 100 percent nitric acid; Cs is the concentration of NO_x as NO_2, g/dscm (lb/dscf); Q_{sd} is the volumetric flow rate of effluent gas, dscm/hr (dscf/hr); P is the acid production rate, metric ton/hr (ton/hr) or 100 percent nitric acid; and K is the conversion factor, 1000 g/kg (1.0 lb/lb).

(b) Method 7, 7A, 7B, 7C, or 7D shall be used to determine the NO_x concentration of each grab sample. Method 1 shall be used to select the sampling site. Four grab samples shall be taken at approximately 15-minute intervals. The arithmetic mean of the four sample concentrations shall constitute the run value (C_s).

(c) Method 2 shall be used to determine the volumetric flow rate (Q_{sd}) of the effluent gas. The measurement site shall be the same as for the NO_x sample. A velocity traverse shall be made once per run within the hour that the NO_x samples are taken.

(d) The production rate (P) shall be taken from the methods used to record the daily production. Material balance over the production system shall be used to confirm the production rate.

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). [Ref: Title V Operating Permit issued December 1, 1999]

5.B.15 For all sources in benzene service and subject to the provisions of 40 CFR 61, Subpart J, the permittee shall comply with the requirements of 40 CFR 61, Subpart V. (Attached in Appendix _). The permittee shall within 180 days of issuance of this permit submit a proposed plan which will include identification of any and all equipment affected by this subpart, such as, but not limited to pumps, compressors, pressure relief devices in gas/vapor service, connecting systems, open-ended valves or lines, valves, pressure relief services in liquid service and connectors, surge control vessels and bottoms receivers. The plan shall include specifics on plans to comply with this subpart and implementation dates. Upon approval of the plan, the permittee shall for all recordkeeping required by this

subpart, submit this data in accordance with permit condition 5.A.4 and maintain it in accordance with permit condition 5.A.3.

5.B.16 For Emission Points AI-002, AI-003, and AI-004, the benzene storage tanks, the permittee shall monitor the vessels by:

(a) Visually inspecting the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with benzene. If there are holes, tears or other openings in the primary seal, the secondary seal, or the seal fabric, or defects in the internal floating roof, the Permittee shall repair the items before filling the storage vessel.

(b) Visually inspecting the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months. If the internal floating roof is not resting on the surface of the benzene liquid inside the storage vessel, or there is liquid on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, an extension of up to 30 additional days may be requested from the DEQ in the inspection report required in §61.275(a). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the Permittee will take that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(c) Visually inspecting the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspections as specified in paragraph (b) and at intervals greater than 5 years in the case of vessels specified in paragraph (d)(1).

(1) For all the inspections required by paragraphs (a) and (c), the permittee shall notify the DEQ in writing at least 30 days prior to the refilling of each storage vessel to afford the DEQ the opportunity to have an observer present. If the inspection required by paragraph (c) is not planned and the permittee could not have known about the inspection 30 days in advance of refilling the vessel, the permittee shall notify the DEQ at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent by express mail so that the DEQ receives it at least 7 days prior to refilling.

(2) If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the permittee shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with benzene.

(d) For benzene storage vessels equipped with a double-seal system as specified in §61.271(a)(2)(ii):

(1) Visually inspecting the vessel as specified in paragraph (c) at least every 5 years; or

(2) Visually inspecting the vessel annually as specified in paragraph (b), and at least every 10 years as specified in paragraph (c).

[Ref: 40 CFR 61.272]

5.B.17 For Emission Points AI-002, AI-003, and AI-004, the benzene storage tanks, the permittee shall submit an initial report describing the controls which will be applied to meet the equipment requirements in §61.271 For a new storage vessel for which construction or operation commenced on or after September 14, 1989, the report shall be combined with the report required by §61.07. [Ref: 40 CFR 61.274]

5.B.18 For Emission Points AI-002, AI-003, and AI-004, the benzene storage tanks, the permittee shall submit periodic reports describing the results of each inspection conducted in accordance with 5.B.16. For vessels for which annual inspections are required under 5.B.16(b), the first report is to be submitted no more than 12 months after the initial report submitted in accordance with 5.B.17, and each report is to be submitted within 60 days of each annual inspection.

(a) Each report shall include the date of the inspection of each storage vessel and identify each storage vessel in which:

(1) The internal floating roof is not resting on the surface of the benzene liquid inside the storage vessel, or there is liquid on the roof, or the seal is detached from the internal floating roof, or there are holes, tears or other openings in the seal or seal fabric; or

(2) There are visible gaps between the seal and the wall of the storage vessel.

(b) Where an annual report identifies any condition in paragraph (a) the annual report shall describe the nature of the defect, the date the storage vessel was emptied, and the date the repair was made, except as provided in paragraph (c).

(c) If an extension is requested in an annual periodic report in accordance with 5.B.16(b), a supplemental periodic report shall be submitted within 15 days of repair. The supplemental periodic report shall identify the vessel and describe the date the storage vessel was emptied and the nature of and date the repair was made.

(d) For inspections conducted in accordance with 5.B.16(c) and (d), the permittee shall submit a report describing the results.

(1) The report is to be submitted within 60 days of conducting each inspection required by 5.B.16(c) and (d).

(2) Each report shall identify each storage vessel in which the Permittee finds that the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal (if one has been installed) has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area. The report shall also describe the nature of the defect, the date the storage vessel was emptied, and the nature of and date the repair was made.

[Ref: 40 CFR 61.275]

5.B.19 Once applicable, for Emission Point AE-002, the permittee shall comply with 40 CFR 60, Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations. The applicable requirements of this subpart are as follows:

(a) Initial performance tests are required by §60.8 and §60.664.

(b) TRE index test methods detailed in §60.664(d),(e), and (f), except as provided under §60.8(b), shall be used in determining compliance with the process vent stream TRE index limitation in Section 3.B.19.

[Ref: TV Permit issued December 1, 1999]

5.B.20 Once applicable, for Emission Point AE-002, the permittee shall keep up-to-date, readily accessible records of:

(a) Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or a distillation unit;

(b) Any recalculation of the TRE index value performed pursuant to §60.664(f); and

(c) The results of any performance test performed pursuant to the methods and procedures required by §60.664(d).

[Ref: 40 CFR 60.665(h)]

The permittee shall submit to the DEQ semi-annual reports of the following recorded information. The initial report shall be submitted within six (6) months after the initial start-up date, and subsequent reports shall be submitted in accordance with 5.A.4. Furthermore these reports shall be maintained in accordance with permit condition 5.A.3 and made available upon request by DEQ personnel.

(1) Exceedances of monitored parameters recorded under §60.665 (c) and (g).

(2) All periods recorded under §60.665(d) when the vent stream is diverted from the control device or has no flow rate.

(3) All periods recorded under §60.665(e) when the boiler or process heater was not operating.

(4) All periods recorded under §60.665(f) in which the pilot flame of the flare was absent.

(5) Any recalculation of the TRE index value, as recorded under §60.665(h).

[Ref: 40 CFR 60.665(l)]

5.B.21 For the entire facility, the permittee shall monitor and record the identity of each HAP containing material and the process (location) associated with that material. At a minimum, the permittee shall calculate HAP and VOC emissions according to the following methodology. Monthly HAP and VOC emissions are determined by summing the emissions generated from the individual processes, storage tanks, loading operations and fugitives.

(a) Process emissions shall be determined from emission test data when available or from AP-42 or engineering calculations using stream times, production volumes or number of batches produced obtained from the production logs.

(b) Storage tank emissions shall be determined using AP-42 calculations based on the monthly throughput and material stored in each tank. Throughput volumes shall be obtained from inventory records and operating logs.

(c) Loading emissions shall be determined from AP-42 and engineering calculations based on transfer volumes obtained from inventory and production log records.

(d) Fugitive emissions shall be determined using emissions monitoring. Monitoring shall be performed at least on a quarterly basis; the total fugitive emissions for the quarter shall be divided by three to provide a monthly emission quantity which is to be used as an estimate of emissions for the following three months. At the end

of the quarter, the monthly fugitive rates are changed based on the new quarterly fugitive total.

The permittee shall record in detail the sample emission calculations for HAP(s) and VOC, the determined emission factors, the materials produced, the HAP(s) and VOC emitted, the annual production rates, the hours each process operated (with product and HAP identified), the HAP(s) and VOC fugitive emission quantifications, and emissions that occur during control equipment bypass operations. The HAP(s) calculations shall be presented pollutant specific and as outlined in this permit (by process).

The permittee shall maintain these records on a monthly basis and on a 12-month rolling total. The permittee shall report any exceedance of the limitations outlined in this permit to the DEQ no later than thirty (30) days following the end of the month in which the exceedance occurred and shall report the cause of the exceedance and the action(s) taken and/or to be taken to correct it. The permittee shall submit summarized reports to include but not limited to the monthly rolling average emission calculations results, any exceedances, any corrective action for the exceedances, all supporting calculations, etc. in accordance with 5.A.4. Furthermore these records shall be maintained in accordance with 5.A.3 and made available upon request by DEQ personnel. [Ref: TV Operating Permit issued December 1, 1999]

[Ref: Title V Operating Permit issued December 1, 1999]

5.B.22 The permittee shall report to the DEQ any change in HAPs used in the processes outlined in this permit or stored in tanks presented in the Title V application. The information shall be provided within seven (7) calendar days after the change, and should include the tank or process being modified, name of HAP, and date modified. [Ref: TV Operating Permit issued December 1, 1999]

[Ref: Title V Operating Permit issued December 1, 1999]

5.B.23 For Emission Points AI-001, AH-001, AH-002, AL-001 through AL-004, AB-001, AB-002, AC-001, AD-002, AE-001, AE-002, AM-001, AJ-001, AJ-002, AG-001, AG-002, AG-003, AG-004, AG-005, AG-006, AK-001, AP-001, AP-002, AF-001, and AF-002, the permittee is required to perform stack testing for HAP and applicable criteria pollutant emissions at least once per permit period for each product that is produced in the associated process during the term of this permit. Emission points that do not operate during the term of this permit are not required to be tested. The results will be used to provide data for the development of emission factors required by paragraph 5.B.21.

The permittee shall submit to the DEQ within 180 days of issuance of this permit for approval a testing proposal, which details the sources, the type and description of test, and the approximate date(s) the tests will be performed. All sources listed above shall be tested at least once prior to this permit's expiration and the test shall be completed within one year of the permit expiration date. Stack test reports shall be submitted within thirty (30)

days after each test is completed. For tests to be valid, the permittee shall operate the sources at maximum capacity but no less than 90% of the capacity, unless the permittee demonstrates that the compliance testing was performed at a rate that is representative of the normal operation of the source.. 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). [Ref: TV Operating Permit issued December 1, 1999]

5.B.24 For the benzene waste operations at the facility, the permittee shall conduct the following test methods, procedures, recordkeeping, and reporting requirements:

(a) The permittee shall determine the total annual benzene quantity from facility waste by the following procedure:

(1) For each waste stream subject to §60.340, Subpart FF, having a flow-weighted annual average water content greater than 10 percent water, on a volume basis as total water, or is mixed with water or other wastes at any time and the resulting mixture has an annual average water content greater than 10 percent, the permittee shall:

(i) Determine the annual waste quantity for each waste stream using the procedures specified in Permit Condition 5.B.24(b).

(ii) Determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in Permit Condition 5.B.24(c).

(iii) Calculate the annual benzene quantity for each waste stream by multiplying the annual waste quantity of the waste stream times the flow-weighted annual average benzene concentration.

(2) Total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year.

(3) The permittee shall:

(i) Comply with the recordkeeping requirements of §61.356 and reporting requirements of §61.357; and

(ii) Repeat the determination of total annual benzene quantity from facility waste at least once per year and whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr or more.

(b) For purposes of the calculation required by Permit Condition 5.B.24(a), the permittee shall determine the annual waste quantity at the point of waste

generation, by one of the methods given in Permit Conditions 5.B.24(b)(1) through (3).

(1) Select the highest annual quantity of waste managed from historical records representing the most recent 5 years of operation or, if the facility has been in service for less than 5 years but at least 1 year, from historical records representing the total operating life of the facility;

(2) Use the maximum design capacity of the waste management unit; or

(3) Use measurements that are representative of maximum waste generation rates.

(c) The permittee shall determine the flow-weighted annual average benzene concentration in a manner that meets the requirements given in Permit Condition 5.B.24(c)(1) using either of the methods given in Permit Conditions 5.B.24(c)(2) and (3).

(1) The determination of flow-weighted annual average benzene concentration shall meet all of the following criteria:

(i) The determination shall be made at the point of waste generation.

(ii) Volatilization of the benzene by exposure to air shall not be used in the determination to reduce the benzene concentration.

(iii) Mixing or diluting the waste stream with other wastes or other materials shall not be used in the determination to reduce the benzene concentration.

(iv) The determination shall be made prior to any treatment of the waste that removes benzene.

(v) For wastes with multiple phases, the determination shall provide the weighted-average benzene concentration based on the benzene concentration in each phase of the waste and the relative proportion of the phases.

(2) Knowledge of the waste. The permittee shall provide sufficient information to document the flow-weighted annual average benzene concentration of each waste stream. Examples of information that could constitute knowledge include material balances, records of chemicals purchases, or previous test results provided the results are still relevant to the current waste stream conditions. If test data are used, then the permittee shall provide documentation describing the testing protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the flow-weighted annual

average benzene concentration for the waste stream. When a permittee and the Administrator do not agree on determinations of the flow-weighted annual average benzene concentration based on knowledge of the waste, the procedures under Permit Condition 5.B.24(c)(3) shall be used to resolve the disagreement.

(3) Measurements of the benzene concentration in the waste stream in accordance with the following procedures:

(i) Collect a minimum of three representative samples from each waste stream. Where feasible, samples shall be taken from an enclosed pipe prior to the waste being exposed to the atmosphere.

(ii) For waste in enclosed pipes, the following procedures shall be used:

(A) Samples shall be collected prior to the waste being exposed to the atmosphere in order to minimize the loss of benzene prior to sampling.

(B) A static mixer shall be installed in the process line or in a by-pass line unless the permittee demonstrates that installation of a static mixer in the line is not necessary to accurately determine the benzene concentration of the waste stream.

(C) The sampling tap shall be located within two pipe diameters of the static mixer outlet.

(D) Prior to the initiation of sampling, sample lines and cooling coil shall be purged with at least four volumes of waste.

(E) After purging, the sample flow shall be directed to a sample container and the tip of the sampling tube shall be kept below the surface of the waste during sampling to minimize contact with the atmosphere.

(F) Samples shall be collected at a flow rate such that the cooling coil is able to maintain a waste temperature less than 10^{o} C.

(G) After filling, the sample container shall be capped immediately (within 5 seconds) to leave a minimum headspace in the container.

(H) The sample containers shall immediately be cooled and maintained at a temperature below 10^{o} C for transfer to the laboratory.

(iii) When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner to minimize

exposure of the sample to the atmosphere and loss of benzene prior to sampling.

(iv) Each waste sample shall be analyzed using one of the test methods in §61.355(c)(iv) (A) through (F) for determining the benzene concentration in a waste stream:

(v) The flow-weighted annual average benzene concentration shall be calculated by averaging the results of the sample analyses as follows:

$$\overline{C} = \frac{1}{Q_t} \times \sum_{i=1}^{n} (Q_i)(C_i)$$

Where C is the flow-weighted annual average benzene concentration for waste stream (ppmw); Q_t is the total annual waste quantity for waste stream (kg/yr); n is the number of waste samples (at least 3); Q_i is the annual waste quantity for waste stream represented by C_i (kg/yr); and C_i measured concentration of benzene in waste sample i (ppmw).

[Ref: 40 CFR Part 61, Subpart FF]

5.B.25 For all the above monitoring and recordkeeping, the permittee shall submit a summary report semi-annually in accordance with 5.A.4, which should contain any information identified in the above paragraphs.

5.B.26 For each emission point AA-009, AA-010, AA-003 and AO-001, the permittee shall assure compliance with the opacity limitations by performing weekly visible observations of emissions from exhaust stacks. If any visible emissions are detected during an observation period of six (6) consecutive minutes, a visible emission evaluation (VEE) shall be performed using EPA Reference Method 9. If a VEE is performed using EPA Reference Method 9, then the observation period shall consist of a minimum of 18 consecutive minutes. Further, the permittee shall maintain a record and/or a log documenting all visual observations/tests, the nature and cause of any visible emissions, any corrective action(s) taken to prevent or minimize the emissions, and the date and time when visible emission observations were conducted. These records and/or logs shall be maintained in accordance with permit condition 5.A.3. and a summarized report submitted in accordance with permit condition 5.A.4. and made available upon request by DEQ. [Ref APC-S-6, Section III.A.3.a(2)]

5.B.27 The permittee shall maintain records documenting the following:

(a) Results of all required visual observations/tests;

(b) The date and time visible emissions were observed and abated;

(c) The nature and cause of any visible emissions;

(d) A description of corrective action or preventive measures taken.

Should the observed visible emissions be associated with a malfunction, upset, or otherwise an emergency, the incident shall be logged and reported in accordance with permit condition 5.A.5. and shall include a description of what corrective action was taken to eliminate the visible emissions. These records and/or logs shall be maintained in accordance with permit condition 5.A.3., and a summarized report shall be submitted in accordance with permit condition 5.A.4. and made available upon request by DEQ. [Ref.: APC-S-6, Section III.A.3.a(2)]

5.B.28 Within 180 days of issuance of this permit, the permittee shall submit a monitoring plan to the DEQ for each emission point contained in permit condition 5.B.23 with an associated add-on control device. The monitoring plan shall contain the suggested parameter or parameters to be monitored to validate the emission factors determined in accordance with permit condition 5.B.21 and ensure compliance with permit condition 3.B.13. During testing required by this permit, the permittee shall record parameter values and establish target ranges for designated parameters. Parameter values and target ranges for each designated parameter shall be submitted to the DEQ along with the source test results.

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 None permitted.

SECTION 7. TITLE VI REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

APPENDIX A

List of Abbreviations Used In this Permit

APC-S-1	Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants
APC-S-2	Permit Regulations for the Construction and/or Operation of Air Emissions Equipment
APC-S-3	Regulations for the Prevention of Air Pollution Emergency Episodes
APC-S-4	Ambient Air Quality Standards
APC-S-5	Regulations for the Prevention of Significant Deterioration of Air Quality
APC-S-6	Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act
APC-S-7	Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act
BACT	Best Available Control Technology
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
DEQ	Mississippi Department of Environmental Quality
EPA	United States Environmental Protection Agency
gr/dscf	Grains Per Dry Standard Cubic Foot
HP	Horsepower
HAP	Hazardous Air Pollutant
lbs/hr	Pounds per Hour
M or K	Thousand
MACT	Maximum Achievable Control Technology
MM	Million
MMBTUH	Million British Thermal Units per Hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards For Hazardous Air Pollutants, 40 CFR 61 or National Emission Standards For Hazardous Air Pollutants for Source Categories, 40 CFR 63
NMVOC	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 Φm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration, 40 CFR 52
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOC	Volatile Organic Compound

APPENDIX B

40 CFR 82

PROTECTION OF STRATOSPHERIC OZONE

APPENDIX C

Permitted HAP Usage List

HAPs allowed to be interchanged by the permittee are limited to:

CAS No	HAP	CAS No	HAP
75070	Acetaldehyde	111422	Diethanolamine
75058	Acetonitrile	121697	Diethyl aniline (N,N) (dimethylaniline (N,N))
98862	Acetophenone	68122	Dimethyl foramide
62533	Aniline	534521	Dinitro-o-cresol(4,6), and salts
71432	Benzene	121142	Dinitrotoluene(2,4)
7782505	Chlorine	100414	Ethyl benzene
1319773	Cresols/Cresylic acid	107211	Ethylene glycol
98828	Cumene (Isopropylbenzene)	50000	Formaldehyde
—	Cyanide Compounds	7647010	Hydrochloric acid
123319	Hydroquinone	106503	Phenylenediamine(p)
67561	Methanol	108883	Toluene
78933	Methyl ethyl ketone (2-Butanone) (MEK)	95534	Toluidine(o)
108101	Methyl isobutyl ketone (Hexone)	121448	Triethylamine
1634044	Methyl tert butyl ether	1330207	Xylenes (mixed)
98953	Nitrobenzene	108383	Xylene(m)
100027	Nitrophenol(4)	95476	Xylene(o)
108952	Phenol	106423	Xylene(p)

APPENDIX D

40 CFR 63, SUBPART EEE **- NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FROM HAZARDOUS WASTE COMBUSTORS**

APPENDIX E

40 CFR PART 63 **Subpart A - NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES**