DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO
GOVERNOR

MIKE D. McDANIEL, Ph.D.
SECRETARY

Certified Mail No.:

Agency Interest No. 2218
Activity No. PER20070002

Mr. James A. Price
Area Manager
Praxair, Inc.
P.O. Box 230
Geismar, LA 70734

RE: Operating permit renewal, Geismar Plant, Praxair Inc., Geismar, Ascension Parish, Louisiana

Dear Mr. Price:

This is to inform you that the Part 70 operating permit for the above referenced facility has been approved under LAC 33:III.501. The submittal was approved on the basis of the application submitted and the approval in no way relieves of the applicant of the obligation to comply with all applicable requirements.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the ____ of _____, 2012, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number cited below and Agency Interest No. 2218 should be referenced in future correspondence regarding this facility.

Done this ____ day of _____, 2007

Permit No.: 0180-00031-V2

Sincerely,

Chuck Carr Bro[illegible]
Assist[illegible]

[illegible]

ENVIRONMENTAL **SERVICES**
: PO BOX 4313, BATON ROUGE, LA 70821-4313
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AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Geismar Plant
Agency Interest No. 2218
Praxair, Inc.
Geismar, Ascension Parish, Louisiana

I. BACKGROUND

Praxair Inc. (Praxair) owns and operates an industrial gas and chemical manufacturing facility in Geismar, Louisiana under Permit No. 0180-00031-V1 issued July 18, 2003.

II. ORIGIN

A permit application and Emission Inventory Questionnaire (EIQ), dated May 8 and November 9, 2007, was submitted requesting a minor modification and renewal of the Part 70 operating permit for the Geismar Plant.

III. DESCRIPTION

The Geismar plant consists of the following three processes:

Specialty Gas Process: This process produces 32.85 billion standard cubic feet (scf) of hydrogen and 4.02 billion scf of carbon monoxide annually by reforming natural gas with steam over a nickel catalyst bed. High temperature product gases, including hydrogen, carbon monoxide and carbon dioxide, are cooled in the reformer gas boiler to produce high pressure and medium pressure steams. Carbon dioxide is removed by amine absorption/desorption in a MEA (monoethanolamine) section. The synthesis gas stream is further cooled for removal of water before entering a cryogenic cold box for separation into salable gas streams. Hydrogen product is recovered from the top of the first column in the cold box. Liquid methane and carbon monoxide are separated at a further column in the cold box. Carbon monoxide is distributed by pipeline to customers or is stored in cryogenic storage tanks for further use. Methane is either used as fuel or stored in a cryogenic storage tank as a salable product.

Sources of emissions from this process are four reformers, eight flares, two storage tanks, and four cooling towers.

Formaldehyde Process: This process produces 112 million pounds of up to 50 percent strength formaldehyde annually. This process uses air and methanol as raw materials. Oxygen in air is reacted catalytically with methanol to produce formaldehyde gas. The formaldehyde gas is absorbed in water and stored as up to 50% strength solutions in heated cone-roof storage tanks.

Sources of emissions from this process are formaldehyde storage tanks, catalytic converter vent, tank truck loading rack, fugitive emissions, one cooling tower, and one 3-inch flare.

Methanol Process: This process produces 96.8 million pounds of methanol annually. Carbon

monoxide, carbon dioxide and hydrogen gases are used as raw materials in this process. CO, CO_2 and H_2 are reacted in the presence of the catalyst to produce methanol.

Emission sources for this process include storage tanks, a tank truck loading rack, fugitive emissions and one 14-inch flare.

Project Description

The changes associated with the minor modification are as follows:

- Shutdown Reformer Unit 4(Emission Point No. 3-94)
- Revise Insignificant Activities to include 85% MEA Storage Tank (Emission Point No. 2-01)
- Revise NO_x emission factors for Units 1, 2, 3, and 6 Reformers. The updated factors are based on stack tests and monitoring data
- Revise maximum lb/hr for NO_x and CO emissions for Unit 6 Reformer based on stack tests and process knowledge
- Added cold box emissions for Unit 1, 2, and 6 (Emission Point Nos. 1-07, 2-07, & 3-07)
- Calculate the ammonia emissions for Reformer 6 (see Specific Requirements for EQT0036)
- Add a new emission source, Miscellaneous Steam Vents(Emission Point No. 4-07)

Estimated emissions from the Geismar Plant in tons per year are as follows:

Pollutant	Permitted	Proposed	Change
PM_{10}	66.19	64.40	-1.79
SO_2	2.33	2.23	-0.10
NO_X	289.73	312.93	+23.2
CO	226.06	243.41	+17.35
VOC	61.67	57.36	-4.31

IV. TYPE OF REVIEW

This application was reviewed for compliance with the Louisiana Part 70 operating permit program, the Louisiana Air Quality Regulations, and New Source Performance Standards (NSPS). National Emission Standards for Hazardous Air Pollutants (NESHAP) and Prevention of Significant Deterioration (PSD) review do not apply.

This facility is a minor source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

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V. CREDIBLE EVIDENCE

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

VI. PUBLIC NOTICE

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, Louisiana on November XX, 2007, and in *The Gonzales Weekly*, Gonzales, Louisiana on November XX, 2007. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on October XX, 2007. The draft permit was also submitted to US EPA Region VI. XX comment was received.

VII. Effects on Ambient Air

Dispersion Model(s) Used: None

VIII. General Condition XVII Activities

		Emission Rates - TPY					
Work Activity	Schedule	PM_{10}	SO_2	NO_x	CO	VOC	H_2SO_4
Unit 1 Startup/Shutdowns	4 events/yr			0.26	3.39		
Unit 2 Startup/Shutdowns	4 events/yr			0.22	2.91		
Unit 3 Startup/Shutdowns	4 events/yr			0.03	0.38		
Unit 6 Startup/Shutdowns	4 events/yr			0.48	3.86		
Hydrogen Product	7 days			0.28			
Compressor Startup/Shutdowns: SYN Gas Compressor	6 hrs/yr				0.06		
Compressor Startup/Shutdowns: Vessel/Pipeline Blowdowns	3 events/yr			0.02	0.11		
Tube Trailer Loading	208 hrs/yr			0.05	3.07		

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IX. Insignificant Activities

ID No.:	Description	Citation
	MEA Storage Tank, 1700 gals	Insignificant Activity per LAC 33:III.501.B.5.A.3.
	Diesel Storage Tank, 200 gals	Insignificant Activity per LAC 33:III.501.B.5.A.3.
2-01	85% MEA Storage Tank, 5000 gals	Insignificant Activity per LAC 33:III.501.B.5.A.3.
	Demin Acid Tank, 10,000 gals	Insignificant Activity per LAC 33:III.501.B.5.A.4.
	Chromatographs	Insignificant Activity per LAC 33:III.501.B.5.A.6.
	Meter Testing	Insignificant Activity per LAC 33:III.501.B.5.A.6.
	Various-Sized Diesel Fuel Tanks, up to 1,000 gals	Insignificant Activity per LAC 33:III.501.B.5.A.8.
	Gas Sampling	Insignificant Activity per LAC 33:III.501.B.5.A.9.
	Purge Gas	Insignificant Activity per LAC 33:III.501.B.5.A.9.
	Catalyst Charging Operations	Insignificant Activity per LAC 33:III.501.B.5.A.11.
	Temporary Cooling Tower	Insignificant Activity per LAC 33:III.501.B.5.A.12.

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Geismar, Ascension Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.Chapter																	
		5[1]	9	11	13	15	2103	2107	2111	2115	2122	2147	2149	2153	22	51*	53	56	59*
UNF0001	Praxair, Geismar Facilitywide Emissions		1															1	1
EQT0001	1-01 - 85% MEA Storage Tank						3												
EQT0002	1-03 - Unit 6 Deaerator																		
EQT0003	1-07 - Cold Box Emissions - Unit 1																		
EQT0004	1-71 - Reformer Flue Gas Stack, Unit 1			1	1	2									1				
EQT0005	1-81 - Reformer Flue Gas Stack, Unit 2			1	1	2									1				
EQT0006	1-89 - Unit 1 Cold Box West Flare			1		2									2				
EQT0007	1-91 - CO Flare			1		2									2				
EQT0008	1-93 - Formaldehyde Storage Tank (T-03B)						3												
EQT0009	1-94 - Tank Farm Flare			1		2				1					2				
EQT0010	10-95 - Unit 6 Main Flare			1		2									2				
EQT0011	11-93 - Tank Truck Loading Rack (Methanol Plant)							3											
EQT0012	2-01 - 85% MEA Storage Tank (D-385)																		
EQT0013	2-07 - Cold Box Emissions - Unit 2																		
EQT0014	2-71 - Unit 1 MEA Flare			1		2									2				

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		5[1]	9	11	13	15	2103	2107	2111	2115	2122	2147	2149	2153	22	51*	53	56	59*
EQT0015	2-81 - Unit 2 Main Flare			1		2									2				
EQT0016	2-88 - Reformer Flue Gas Stack, Unit 3			1	1	2									1				
EQT0017	2-89 - Unit 1 Cold Box East Flare			1		2									2				
EQT0018	2-93 - Formaldehyde Storage Tank (T-02B)						3												
EQT0019	2-94 - Methanol Flare			1		2				1					2				
EQT0020	2-96 - Unit 6 Cold Box Flare			1		2									2				
EQT0021	3-01 - Cooling Tower - Unit 1																		
EQT0022	3-07 - Cold Box Emissions - Unit 6																		
EQT0023	3-71 - Unit 1 Main Flare			1		2									2				
EQT0024	3-96 - Formaldehyde Storage Tank (T-04B)						3												
EQT0025	4-01 - Cooling Tower - Unit 2																		
EQT0026	4-93 - Tank Truck Loading Rack (Formaldehyde Plant)							3											
EQT0027	4-96 - T9 Off-Spec. Methanol Storage Tank (T-09B)						1												
EQT0028	5-01 - Cooling Tower - Unit 3																		
EQT0029	5-96 - Methanol Shift Tank (D-110A)						1												
EQT0030	6-01 - Cooling Tower - Unit 6																		

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ID No.:	Description	LAC 33:III.Chapter																	
		5[1]	9	11	13	15	2103	2107	2111	2115	2122	2147	2149	2153	22	51*	53	56	59*
EQT0031	6-93 - Formaldehyde Storage Tank (T-01B)						3												
EQT0032	6-96 - Methanol Shift Tank (D-110B)						1												
EQT0033	7-01 - Cooling Tower - Formaldehyde/Methanol Plant																		
EQT0034	7-93 - Methanol Storage Tank (T-07B)						1												
EQT0035	9-93 - Methanol Stop Tank (D-111)						3												
EQT0036	9-95 - Reformer Flue Gas Stack, Unit 6			1	1	2									1				
EQT0037	T5-3 - Wastewater Tank No. 902A						3												
EQT0038	T5-4 - Wastewater Tank No. 902B						3												
FUG0001	5-93 - Fugitives (Formaldehyde Plant)								1		2								
FUG0002	8-93 - Fugitives (Methanol Plant)								1		2								
RLP0006	2-03 - Unit 6 MEA CO2 Vent																		
RLP0007	3-93 - Catalytic Converter Vent									2[1]									
RLP0008	4-07 - Miscellaneous Steam Vents																		

*The regulations indicated above are State Only regulations.
[1]LAC 33:III.501.C.6 citations are federally enforceable except when it specifically states that the regulation is State Only.

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KEY TO MATRIX

1 - The regulations have applicable requirements that apply to this particular emission source.
- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

2 - The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.

3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

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X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.	Description	40 CFR 60 NSPS								40 CFR 61			40 CFR 63 NESHAP									40 CFR		
		A	Db	Kb	GG	VV	NNN	QQQ	RRR	A	J&V	FF	A	F&G	H	XX	YY	Q	FFFF	DDDDD	GGGGG	64	68	70
UNF0001	Praxair, Geismar Facilitywide Emissions																						1	
EQT0001	1-01 - 85% MEA Storage Tank			3																				
EQT0002	1-03 - Unit 6 Deaerator																							
EQT0003	1-07 - Cold Box Emissions - Unit 1																							
EQT0004	1-71 - Reformer Flue Gas Stack, Unit 1																							
EQT0005	1-81 - Reformer Flue Gas Stack, Unit 2																							
EQT0006	1-89 - Unit 1 Cold Box West Flare																							
EQT0007	1-91 - CO Flare																							
EQT0008	1-93 - Formaldehyde Storage Tank (T-03B)			1																				
EQT0009	1-94 - Tank Farm Flare																							
EQT0010	10-95 - Unit 6 Main Flare																							
EQT0011	11-93 - Tank Truck Loading Rack (Methanol Plant)																							
EQT0012	2-01 - 85% MEA Storage Tank (D-385)																							

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		A	Db	Kb	GG	VV	NNN	QQQ	RRR	A	J&V	FF	A	F&G	H	XX	YY	Q	FFFF	DDDDD	GGGGG	64	68	70
EQT0013	2-07 - Cold Box Emissions - Unit 2																							
EQT0014	2-71 - Unit 1 MEA Flare																							
EQT0015	2-81 - Unit 2 Main Flare																							
EQT0016	2-88 - Reformer Flue Gas Stack, Unit 3																							
EQT0017	2-89 - Unit 1 Cold Box East Flare																							
EQT0018	2-93 - Formaldehyde Storage Tank (T-02B)			1																				
EQT0019	2-94 - Methanol Flare																							
EQT0020	2-96 - Unit 6 Cold Box Flare																							
EQT0021	3-01 - Cooling Tower - Unit 1																		3					
EQT0022	3-07 - Cold Box Emissions - Unit 6																							
EQT0023	3-71 - Unit 1 Main Flare																							
EQT0024	3-96 - Formaldehyde Storage Tank (T-04B)																							
EQT0025	4-01 - Cooling Tower - Unit 2																		3					
EQT0026	4-93 - Tank Truck Loading Rack (Formaldehyde Plant)																							

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		A	Db	Kb	GG	VV	NNN	QQQ	RRR	A	J&V	FF	A	F&G	H	XX	YY	Q	FFFF	DDDDD	GGGGG	64	68	70
EQT0027	4-96 - T9 Off-Spec. Methanol Storage Tank (T-09B)			3																				
EQT0028	5-01 - Cooling Tower - Unit 3																	3						
EQT0029	5-96 - Methanol Shift Tank (D-110A)			3																				
EQT0030	6-01 - Cooling Tower - Unit 6																	3						
EQT0031	6-93 - Formaldehyde Storage Tank (T-01B)																							
EQT0032	6-96 - Methanol Shift Tank (D-110B)			3																				
EQT0033	7-01 - Cooling Tower - Formaldehyde/Methanol Plant																	3						
EQT0034	7-93 - Methanol Storage Tank (T-07B)			1																				
EQT0035	9-93 - Methanol Stop Tank (D-111)			3																				
EQT0036	9-95 - Reformer Flue Gas Stack, Unit 6																							
EQT0037	T5-3 - Wastewater Tank No. 902A																							
EQT0038	T5-4 - Wastewater Tank No. 902B																							
FUG0001	5-93 - Fugitives (Formaldehyde Plant)					1																		
FUG0002	8-93 - Fugitives (Methanol Plant)					1																		

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ID No.	Description	40 CFR 60 NSPS								40 CFR 61			40 CFR 63 NESHAP									40 CFR		
		A	Db	Kb	GG	VV	NNN	QQQ	RRR	A	J&V	FF	A	F&G	H	XX	YY	Q	FFFF	DDDDD	GGGGG	64	68	70
RLP0006	2-03 - Unit 6 MEA CO2 Vent																							
RLP0007	3-93 - Catalytic Converter Vent																							
RLP0008	4-07 - Miscellaneous Steam Vents																							

KEY TO MATRIX

1 - The regulations have applicable requirements that apply to this particular emission source.
- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

2 - The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.

3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

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X. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
Reformers EQT04 1-71 EQT05 1-81 EQT16 2-88 EQT36 9-95	Emission Standards for Sulfur Dioxide-Emission Limitations [LAC 33:III.1503]	EXEMPT. Source emits <250 tons per year of sulfur compounds.
Flares EQT14 2-71	Emission Standards for Sulfur Dioxide-Emission Limitations [LAC 33:III.1503]	EXEMPT. Source emits <250 tons per year of sulfur compounds.
EQT23 3-71 EQT15 2-81 EQT06 1-89 EQT17 2-89 EQT07 1-91 EQT10 10-95 EQT20 2-96 EQT09 1-94 EQT19 2-94	Chapter 22. Control of Emissions of Nitrogen Oxides(NO_x) [LAC 33:III.2201.C.7]	EXEMPT per LAC 33:III.2201.C.7

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X. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
Formaldehyde Tanks EQT08 1-93 EQT18 2-93 EQT31 6-93 EQT24 3-96	Control of Emission of Organic Compounds-Storage of VOC Compounds [LAC 33:III.2103]	DOES NOT APPLY. Vapor pressure <0.75 psia.
Tanks EQT37 T5-3 EQT38 T5-4 EQT01 1-01 EQT349-93	Control of Emission of Organic Compounds-Storage of VOC Compounds [LAC 33:III.2103]	DOES NOT APPLY. Vapor pressure <1.5 psia.
Tanks EQT01 1-01 EQT34 9-93 EQT27 4-96 EQT29 5-96 EQT32 6-96	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels [40 CFR 60.110b(a)]	DOES NOT APPLY. Storage vessel has a capacity <19,812 gals (75 cubic meters).
Tanks EQT08 1-93 EQT18 2-93	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels [40 CFR 60.110b(a)]	EXEMPT FROM CONTROL per 40 CFR 60.110b(a)

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X. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
EQT24 3-96 EQT31 6-96	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels [40 CFR 60.110b(b)]	DOES NOT APPLY. VOL between 75 m^3 and 151 m^3, Vapor pressure <2.17 psia.
Catalytic Converter RLP07 3-93	Control of Emission of Organic Compounds-Waste Gas Disposal [LAC 33:III.2115]	EXEMPT per LAC 33:III.2115.H.1.c.
Loading Operations EQT26 4-93 EQT11 11-93	Control of Emissions of Volatile Organic Compounds-Loading [LAC 33:III.2107.A]	DOES NOT APPLY. VOCs in materials loaded have a true vapor pressure <1.5 psia at loading conditions.
Fugitives FUG01 5-93 FUG02 8-93	Fugitive Emission Control for Ozone Nonattainment Area and Specificd Parishes [LAC 33:III.2122]	EXEMPT per LAC 33:III.2122.A.6.b Comply with NSPS Subpart VV
Cooling Towers EQT21 3-01 EQT25 4-01 EQT28 5-01 EQT30 6-01 EQT33 7-01	NESHAP for Source Categories Subpart Q-Chromium Emissions from Industrial Process Cooling Towers (IPCT) [40 CFR Part 63.400(a)]	DOES NOT APPLY. No water treatment programs using chromium or chromium compounds at the IPCT.

The above table provides explanation for both the exemption status or non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit.

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EQUIPMENT LIST		
EMISSION ID	**DESCRIPTION**	**NOTES**
EQT014 2-71	Unit 1 MEA Flare	Synthesis gas from Reformer Unit 1 & 3
EQT024 3-71	Unit 1 Main Flare	Synthesis gas from Reformer Unit 1 & 3
EQT015 2-81	Unit 2 Main Flare	Synthesis gas from Unit No. 2
EQT006 1-89	Unit 1 Cold Box West Flare	Various vent gas from Unit 1 Cold Box Flare
EQT017 2-89	Unit 1 Cold Box East Flare	Various vent gas from Unit 1 Cold Box Flare
EQT007 1-91	CO Flare	CO from storage area and CO tube trailers
EQT010 10-95	Unit 6 Main Flare	Synthesis gas from Unit 6
EQT002 2-96	Unit 6 Cold Box Flare	Various vent gases from Unit 6 Cold Box Area
RLP007 3-93	Catalytic Converter Vent	Formaldehyde Plant Absorber Vent
EQT009 1-94	Tank Farm Flare	Off gases from methanol/formaldehyde truck loading rack and methanol/formaldehyde tank farm
EQT019 2-94	Methanol Flare	Off gases from Methanol Plant and synthesis gas

40 CFR PART 70 GENERAL CONDITIONS

A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]

B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]

C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. This permit 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. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]

D. 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. [Reference 40 CFR 70.6(a)(6)(ii)]

E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]

F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority 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 permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]

G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]

40 CFR PART 70 GENERAL CONDITIONS

H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:

1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];

2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];

3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and

4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]

I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit.
[Reference 40 CFR 70.6(a)(3)(ii)(B)]

J. Records of required monitoring shall include the following:

1. the date, place as defined in the permit, and time of sampling or measurements;
2. the date(s) analyses were performed;
3. the company or entity that performed the analyses;
4. the analytical techniques or methods used;
5. the results of such analyses; and
6. the operating conditions as existing at the time of sampling or measurement.

[Reference 40 CFR 70.6(a)(3)(ii)(A)]

K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]

L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]

40 CFR PART 70 GENERAL CONDITIONS

M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]

N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]

O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]

P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]

Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:

1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;

2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;

3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;

4. changes in emissions would not require new source review for prevention of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;

5. changes in emissions would not qualify as a significant modification; and

6. the request is submitted no later than 12 months after commencing operation. [LAC 33:III.523.A, reference 40 CFR 70.7(d)]

40 CFR PART 70 GENERAL CONDITIONS

R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Enforcement Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).

1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.

2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.

3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:

   a. Report by June 30 to cover January through March
   b. Report by September 30 to cover April through June
   c. Report by December 31 to cover July through September
   d. Report by March 31 to cover October through December

4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]

S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(iii)]

40 CFR PART 70 GENERAL CONDITIONS

T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;

2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;

3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;

4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);

5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and

6. 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 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]

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

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. [Reference 40 CFR 82, Subpart B]

V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS

I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.

II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.

III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated May 8 and November 9, 2007.

IV. This permit shall become invalid, for the sources not constructed, if:

A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;

B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more..

The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.

This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.

V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.

VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS

VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.

VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.

IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Enforcement Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.

X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.

XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Enforcement Division with a written report as specified below.

A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.

B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.

C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:

1. Report by June 30 to cover January through March
2. Report by September 30 to cover April through June
3. Report by December 31 to cover July through September
4. Report by March 31 to cover October through December

LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS

D. Each report submitted in accordance with this condition shall contain the following information:

1. Description of noncomplying emission(s);
2. Cause of noncompliance;
3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.

E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.

XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:

A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;

B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;

C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and

D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.

XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.

XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS

XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.

XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services, Air Permits Division, within ninety (90) days after the event, to amend this permit.

XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:

1. Generally be less than 5 TPY
2. Be less than the minimum emission rate (MER)
3. Be scheduled daily, weekly, monthly, etc., or
4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]

These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.

XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division
La. Dept. of Environmental Quality
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302

XIX. Certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

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INVENTORIES

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
PRAXAIR GEISMAR FACILITYWIDE EMISSIONS						
EQT0001	1-01 - 85% MEA Storage Tank	9400 gallons		5000 gallons/yr		8760 hr/yr (All Year)
EQT0002	1-03 - Unit 6 Deaerator					8760 hr/yr (All Year)
EQT0003	1-07 - Cold Box Emissions - Unit 1					8760 hr/yr (All Year)
EQT0004	1-71 - Reformer Flue Gas Stack, Unit 1		110 MM BTU/hr			8760 hr/yr (All Year)
EQT0005	1-81 - Reformer Flue Gas Stack, Unit 2		126 MM BTU/hr			8760 hr/yr (All Year)
EQT0006	1-89 - Unit 1 Cold Box West Flare		.15 MM BTU/hr			8760 hr/yr (All Year)
EQT0007	1-91 - CO Flare		.06 MM BTU/hr			8760 hr/yr (All Year)
EQT0008	1-93 - Formaldehyde Storage Tank (T-03B)	125000 gallons		125 MM lbs/yr		8760 hr/yr (All Year)
EQT0009	1-94 - Tank Farm Flare		.06 MM BTU/hr			8760 hr/yr (All Year)
EQT0010	10-95 - Unit 6 Main Flare		.15 MM BTU/hr			8760 hr/yr (All Year)
EQT0011	11-93 - Tank Truck Loading Rack (Methanol Plant)			14.6 MM gallons/yr		8760 hr/yr (All Year)
EQT0012	2-01 - 85% MEA Storage Tank (D-385)	5000 gallons		6000 gallons/yr		8760 hr/yr (All Year)
EQT0013	2-07 - Cold Box Emissions - Unit 2					8760 hr/yr (All Year)
EQT0014	2-71 - Unit 1 MEA Flare		.2 MM BTU/hr			8760 hr/yr (All Year)
EQT0015	2-81 - Unit 2 Main Flare		.2 MM BTU/hr			8760 hr/yr (All Year)
EQT0016	2-88 - Reformer Flue Gas Stack, Unit 3		42 MM BTU/hr			8760 hr/yr (All Year)
EQT0017	2-89 - Unit 1 Cold Box East Flare		.14 MM BTU/hr			8760 hr/yr (All Year)
EQT0018	2-93 - Formaldehyde Storage Tank (T-02B)	75000 gallons		125 MM lbs/yr		8760 hr/yr (All Year)
EQT0019	2-94 - Methanol Flare		.2 MM BTU/hr			8760 hr/yr (All Year)
EQT0020	2-96 - Unit 6 Cold Box Flare		.31 MM BTU/hr			8760 hr/yr (All Year)
EQT0021	3-01 - Cooling Tower - Unit 1			3416.4 MM gallons/yr		8760 hr/yr (All Year)
EQT0022	3-07 - Cold Box Emissions - Unit 6					8760 hr/yr (All Year)
EQT0023	3-71 - Unit 1 Main Flare		.31 MM BTU/hr			8760 hr/yr (All Year)
EQT0024	3-96 - Formaldehyde Storage Tank (T-04B)	25000 gallons		75000 gallons/yr		8760 hr/yr (All Year)
EQT0025	4-01 - Cooling Tower - Unit 2			1918.4 MM gallons/yr		8760 hr/yr (All Year)
EQT0026	4-93 - Tank Truck Loading Rack (Formaldehyde Plant)			125 MM bbl/yr		8760 hr/yr (All Year)
EQT0027	4-96 - T9 Off-Spec. Methanol Storage Tank (T-09B)	13540 gallons		40000 gallons/yr		8760 hr/yr (All Year)
EQT0028	5-01 - Cooling Tower - Unit 3			1524.2 MM gallons/yr		8760 hr/yr (All Year)
EQT0029	5-96 - Methanol Shift Tank (D-110A)	12000 gallons		7.3 MM gallons/yr		8760 hr/yr (All Year)
EQT0030	6-01 - Cooling Tower - Unit 6			2440.9 MM gallons/yr		8760 hr/yr (All Year)
EQT0031	6-93 - Formaldehyde Storage Tank (T-01B)	25000 gallons				8760 hr/yr (All Year)
EQT0032	6-96 - Methanol Shift Tank (D-110B)	12000 gallons		7.3 MM gallons/yr		8760 hr/yr (All Year)
EQT0033	7-01 - Cooling Tower - Formaldehyde/Methanol Plant			2890.8 MM gallons/yr		8760 hr/yr (All Year)
EQT0034	7-93 - Methanol Storage Tank (T-07B)	300000 gallons		14.6 MM gallons/yr		8760 hr/yr (All Year)
EQT0035	9-93 - Methanol Stop Tank (D-111)	2500 gallons		65700 gallons/yr		8760 hr/yr (All Year)
EQT0036	9-95 - Reformer Flue Gas Stack, Unit 6		565 MM BTU/hr			8760 hr/yr (All Year)
EQT0037	T5-3 - Wastewater Tank No. 902A	15000 gallons		182742 gallons/yr		8760 hr/yr (All Year)
EQT0038	T5-4 - Wastewater Tank No. 902B	15000 gallons		182742 gallons/yr		8760 hr/yr (All Year)
FUG0001	5-93 - Fugitives (Formaldehyde Plant)					8760 hr/yr (All Year)
FUG0002	8-93 - Fugitives (Methanol Plant)					8760 hr/yr (All Year)

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INVENTORIES

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
PRAXAIR GEISMAR FACILITYWIDE EMISSIONS						
RLP0006	2-03 - Unit 6 MEA CO2 Vent					8760 hr/yr (All Year)
RLP0007	3-93 - Catalytic Converter Vent					8760 hr/yr (All Year)
RLP0008	4-07 - Miscellaneous Steam Vents					8760 hr/yr (All Year)

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
PRAXAIR GEISMAR FACILITYWIDE EMISSIONS							
EQT0002	1-03 - Unit 6 Deaerator			.17		50	225
EQT0004	1-71 - Reformer Flue Gas Stack, Unit 1	40	28970	3.92		75	250
EQT0005	1-81 - Reformer Flue Gas Stack, Unit 2	37	28000	4		85	275
EQT0006	1-89 - Unit 1 Cold Box West Flare	47.4	248	.33		120	350
EQT0007	1-91 - CO Flare	1.75	57.5	.83		58	350
EQT0008	1-93 - Formaldehyde Storage Tank (T-03B)						90
EQT0009	1-94 - Tank Farm Flare	1.58	4.65	.25		35	260
EQT0010	10-95 - Unit 6 Main Flare	.18	39.34	2.16		100	250
EQT0011	11-93 - Tank Truck Loading Rack (Methanol Plant)						90
EQT0014	2-71 - Unit 1 MEA Flare			.83		85	
EQT0015	2-81 - Unit 2 Main Flare	129	6081	1		85	60
EQT0016	2-88 - Reformer Flue Gas Stack, Unit 3	35.4	10416	2.5		40	275
EQT0017	2-89 - Unit 1 Cold Box East Flare	3.14	9.27	.25		120	270
EQT0018	2-93 - Formaldehyde Storage Tank (T-02B)						90
EQT0019	2-94 - Methanol Flare	1.58	4.65	1.17		95	260
EQT0020	2-96 - Unit 6 Cold Box Flare	15	176.6	.5		140	260
EQT0021	3-01 - Cooling Tower - Unit 1					18.2	
EQT0023	3-71 - Unit 1 Main Flare			1.33		92	
EQT0024	3-96 - Formaldehyde Storage Tank (T-04B)					20	70
EQT0025	4-01 - Cooling Tower - Unit 2					14.2	
EQT0026	4-93 - Tank Truck Loading Rack (Formaldehyde Plant)						90
EQT0027	4-96 - T9 Off-Spec. Methanol Storage Tank (T-09B)					16	70
EQT0028	5-01 - Cooling Tower - Unit 3					18.3	
EQT0029	5-96 - Methanol Shift Tank (D-110A)					35.5	70
EQT0030	6-01 - Cooling Tower - Unit 6					18.7	
EQT0031	6-93 - Formaldehyde Storage Tank (T-01B)						90
EQT0032	6-96 - Methanol Shift Tank (D-110B)					35.5	70

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INVENTORIES

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
PRAXAIR GEISMAR FACILITYWIDE EMISSIONS							
EQT0033	7-01 - Cooling Tower - Formaldehyde/Methanol Plant					27.7	
EQT0034	7-93 - Methanol Storage Tank (T-07B)						70
EQT0035	9-93 - Methanol Slop Tank (D-111)						70
EQT0036	9-95 - Reformer Flue Gas Stack, Unit 6	18.99	89425	10		110	700
FUG0001	5-93 - Fugitives (Formaldehyde Plant)						90
FUG0002	8-93 - Fugitives (Methanol Plant)						70
RLP0006	2-03 - Unit 6 MEA CO2 Vent		1583	.5		40	125
RLP0007	3-93 - Catalytic Converter Vent	267.67	12614.12	1		40	752

Relationships:

ID	Description	Relationship	ID	Description
EQT0008	1-93 - Formaldehyde Storage Tank (T-03B)	Controlled by	EQT0009	1-94 - Tank Farm Flare
EQT0011	11-93 - Tank Truck Loading Rack (Methanol Plant)	Controlled by	EQT0009	1-94 - Tank Farm Flare
EQT0018	2-93 - Formaldehyde Storage Tank (T-02B)	Controlled by	EQT0009	1-94 - Tank Farm Flare
EQT0024	3-96 - Formaldehyde Storage Tank (T-04B)	Controlled by	EQT0009	1-94 - Tank Farm Flare
EQT0026	4-93 - Tank Truck Loading Rack (Formaldehyde Plant)	Controlled by	EQT0009	1-94 - Tank Farm Flare
EQT0029	5-96 - Methanol Shift Tank (D-110A)	Controlled by	EQT0019	2-94 - Methanol Flare
EQT0031	6-93 - Formaldehyde Storage Tank (T-01B)	Controlled by	EQT0009	1-94 - Tank Farm Flare
EQT0032	6-96 - Methanol Shift Tank (D-110B)	Controlled by	EQT0019	2-94 - Methanol Flare

Subject Item Groups:

ID	Group Type	Group Description
GRP0001	Equipment Group	GPR0001 - FORMALDEHYDE PLANT
GRP0002	Equipment Group	GRP0002 - METHANOL PLANT
GRP0003	Equipment Group	GPR0003 - SPECIALTY GAS PLANT
GRP0006	Equipment Group	GRP0006 - Emission Cap for Reformers 1, 2, 3, and 6
GRP0007	Equipment Group	GRP0007 - COOLING TOWERS
GRP0008	Equipment Group	GPR0008 - TANK FARM
UNF0001	Unit or Facility Wide	UNF0001 - Praxair, Geismar Facilitywide Emissions

Group Membership:

ID	Description	Member of Groups
EQT0001	1-01 - 85% MEA Storage Tank	GRP0000000008
EQT0002	1-03 - Unit 6 Deaerator	GRP0000000001
EQT0003	1-07 - Cold Box Emissions - Unit 1	GRP0000000007
EQT0004	1-71 - Reformer Flue Gas Stack, Unit 1	GRP0000000006

INVENTORIES

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

Group Membership:

ID	Description	Member of Groups
EQT0005	1-81 - Reformer Flue Gas Stack, Unit 2	GRP0000000006
EQT0006	1-89 - Unit 1 Cold Box West Flare	GRP0000000003
EQT0007	1-91 - CO Flare	GRP0000000003
EQT0008	1-93 - Formaldehyde Storage Tank (T-03B)	GRP0000000001
EQT0009	1-94 - Tank Farm Flare	GRP0000000001
EQT0010	10-95 - Unit 6 Main Flare	GRP0000000003
EQT0011	11-93 - Tank Truck Loading Rack (Methanol Plant)	GRP0000000002
EQT0013	2-07 - Cold Box Emissions - Unit 2	GRP0000000007
EQT0014	2-71 - Unit 1 MEA Flare	GRP0000000003
EQT0015	2-81 - Unit 2 Main Flare	GRP0000000003
EQT0016	2-88 - Reformer Flue Gas Stack, Unit 3	GRP0000000006
EQT0017	2-89 - Unit 1 Cold Box East Flare	GRP0000000003
EQT0018	2-93 - Formaldehyde Storage Tank (T-02B)	GRP0000000001
EQT0019	2-94 - Methanol Flare	GRP0000000002
EQT0020	2-96 - Unit 6 Cold Box Flare	GRP0000000003
EQT0021	3-01 - Cooling Tower - Unit 1	GRP0000000007
EQT0022	3-07 - Cold Box Emissions - Unit 6	GRP0000000007
EQT0023	3-71 - Unit 1 Main Flare	GRP0000000003
EQT0024	3-96 - Formaldehyde Storage Tank (T-04B)	GRP0000000001
EQT0025	4-01 - Cooling Tower - Unit 2	GRP0000000007
EQT0026	4-93 - Tank Truck Loading Rack (Formaldehyde Plant)	GRP0000000001
EQT0027	4-96 - T9 Off-Spec. Methanol Storage Tank (T-09B)	GRP0000000002
EQT0028	5-01 - Cooling Tower - Unit 3	GRP0000000007
EQT0029	5-96 - Methanol Shift Tank (D-110A)	GRP0000000001
EQT0030	6-01 - Cooling Tower - Unit 6	GRP0000000007
EQT0031	6-93 - Formaldehyde Storage Tank (T-01B)	GRP0000000001
EQT0032	6-96 - Methanol Shift Tank (D-110B)	GRP0000000001
EQT0033	7-01 - Cooling Tower - Formaldehyde/Methanol Plant	GRP0000000007
EQT0034	7-93 - Methanol Storage Tank (T-07B)	GRP0000000002
EQT0035	9-93 - Methanol Slop Tank (D-111)	GRP0000000002
EQT0036	9-95 - Reformer Flue Gas Stack, Unit 6	GRP0000000006
EQT0037	T5-3 - Wastewater Tank No. 902A	GRP0000000008
EQT0038	T5-4 - Wastewater Tank No. 902B	GRP0000000008
FUG0001	5-93 - Fugitives (Formaldehyde Plant)	GRP0000000001
FUG0002	8-93 - Fugitives (Methanol Plant)	GRP0000000002
RLP0006	2-03 - Unit 6 MEA CO2 Vent	GRP0000000001
RLP0007	3-93 - Catalytic Converter Vent	GRP0000000001

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group

Annual Maintenance Fee:

Fee Number	Air Contaminant Source	Multiplier	Units Of Measure

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INVENTORIES

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

Fee Number	Air Contaminant Source	Multiplier	Units Of Measure
0440	Industrial Gases		
0630	Organic Oxides, Alcohols, Glycols (Rated Capacity)	125	MM Lb/Yr

SIC Codes:

2813	Industrial gases	UNF001
2869	Industrial organic chemicals, nec	UNF001

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

	CO			NOx			PM10			SO2			VOC		
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
PRAXAIR GEISMAR FACILITYWIDE EMISSIONS															
EQT 0001 1-01													<0.001	<0.001	<0.001
EQT 0002 1-03													0.46	0.46	2.00
EQT 0003 1-07	0.29	0.29	1.26												
EQT 0004 1-71		4.48			22.79			0.92			0.07			0.97	
EQT 0005 1-81		5.13			28.52			1.05			0.08			1.11	
EQT 0006 1-89	7.14	7.14	31.26	0.19	0.19	0.81	0.001	0.001	0.01	<0.001	<0.001	<0.001	0.01	0.01	0.05
EQT 0007 1-91	0.67	0.67	2.99	0.04	0.04	0.19	0.001	0.001	0.002	<0.001	<0.001	<0.001	0.01	0.01	0.02
EQT 0009 1-94	0.02	0.02	0.10	0.004	0.004	0.02	0.001	0.001	0.002	<0.001	<0.001	<0.001	0.03	0.03	0.15
EQT 0010 10-95	1.55	1.55	6.77	0.04	0.04	0.18	0.002	0.002	0.01	<0.001	<0.001	<0.001	0.02	0.02	0.08
EQT 0013 2-07	0.06	0.06	0.27												
EQT 0014 2-71	0.08	0.08	0.33	0.01	0.01	0.06	0.002	0.002	0.01	<0.001	<0.001	0.001	0.02	0.02	0.07
EQT 0015 2-81	4.67	4.67	20.45	0.15	0.15	0.67	0.002	0.002	0.01	<0.001	<0.001	0.001	0.02	0.02	0.07
EQT 0016 2-88		1.71			14.69			0.35			0.03			0.37	
EQT 0017 2-89	0.31	0.31	1.35	0.01	0.01	0.04	0.001	0.001	0.002	<0.001	<0.001	<0.001	0.01	0.01	0.03
EQT 0019 2-94	0.08	0.08	0.35	0.01	0.01	0.07	0.002	0.002	0.01	<0.001	<0.001	0.001	0.02	0.02	0.07
EQT 0020 2-96	2.24	2.24	9.82	0.05	0.05	0.23	0.002	0.002	0.01	<0.001	<0.001	0.001	0.02	0.02	0.10
EQT 0021 3-01							2.32	2.32	10.16						
EQT 0022 3-07	0.02	0.02	0.07												
EQT 0023 3-71	0.48	0.48	2.11	0.05	0.05	0.21	0.002	0.002	0.01	<0.001	<0.001	0.001	0.02	0.02	0.10
EQT 0025 4-01							1.30	1.30	5.71						
EQT 0027 4-96													0.026	0.026	0.113
EQT 0028 5-01							1.04	1.04	4.53						
EQT 0030 6-01							1.66	1.66	7.26						

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EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

	CO			NOx			PM10			SO2			VOC		
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
PRAXAIR GEISMAR FACILITYWIDE EMISSIONS															
EQT 0033 7-01							1.96	1.96	8.60						
EQT 0034 7-93													0.042	0.042	0.184
EQT 0035 9-93													0.0024	0.0024	0.011
EQT 0036 9-95		300.00			90.00			4.72			0.37			4.97	
EQT 0037 T5-3													0.019	0.019	0.083
EQT 0038 T5-4													0.019	0.019	0.083
FUG 0001 5-93	0.006	0.006	0.025										1.952	1.952	8.162
FUG 0002 8-93													2.247	2.247	9.844
GRP 0006 GRP0006	31.19		136.62	70.88		310.45	6.41		28.06	0.51		2.22	6.74		29.54
RLP 0006 2-03	2.466	2.466	10.80												
RLP 0007 3-93	4.30	4.30	18.83										1.5029	1.5029	6.583

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

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EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0002 1-03	Methanol	0.46	0.46	2.00
EQT 0009 1-94	Formaldehyde	< 0.001	< 0.001	< 0.001
	Methanol	0.03	0.03	0.13
EQT 0019 2-94	Methanol	1.50	1.50	6.56
EQT 0027 4-96	Methanol	0.026	0.026	0.113
EQT 0034 7-93	Methanol	0.042	0.042	0.184
EQT 0035 9-93	Methanol	0.0024	0.0024	0.011
EQT 0036 9-95	Ammonia	1.73	2.50	7.56
EQT 0037 T5-3	Formaldehyde	0.019	0.019	0.081
	Methanol	< 0.001	< 0.001	0.002
EQT 0038 T5-4	Formaldehyde	0.019	0.019	0.081
	Methanol	< 0.001	< 0.001	0.002
FUG 0001 5-93	Formaldehyde	0.174	0.174	0.40
	Methanol	0.0092	0.0092	0.041
FUG 0002 8-93	Methanol	0.003	0.003	0.013
RLP 0007 3-93	Formaldehyde	0.0029	0.0029	0.013
	Methanol	0.10	0.10	0.44
RLP 0008 4-07	Ammonia	0.43	0.43	1.86
UNF 0001 UNF0001	Ammonia	2.15	2.5	9.42
	Formaldehyde	0.04	0.04	0.576
	Methanol	1.70	1.70	9.496

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

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SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

EQT0004 1-71 - Reformer Flue Gas Stack, Unit 1

1	[LAC 33:III.1101.B]	Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). Which Months: All Year Statistical Basis: None specified
2	[LAC 33:III.1313.C]	Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel). Which Months: All Year Statistical Basis: None specified
3	[LAC 33:III.2201.E.1.a]	Establish an emission factor for each applicable affected point source such that if each affected point sources was operated at its averaging capacity, the cumulative emission factor in pounds NOx/MMBtu from all point sources in the averaging group would not exceed the facility-wide emission factor. Use the equations in LAC 33:III.2201.E.a to calculate the cumulative emission rate and the facility-wide emission factor.
4	[LAC 33:III.2201.E.1.c]	Demonstrate compliance with the facility-wide averaging plan using either the method in LAC 33:III.2201.E.1.c.i or the method in LAC 33:III.2201.E.1.c.ii.
5	[LAC 33:III.2201.E.1.i]	Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Carry out recordkeeping that includes, but is not limited to, a record of the data on which the determination of each point source's hourly, daily, or 30-day, as appropriate, compliance with the facility-wide averaging plan is based.
6	[LAC 33:III.2201.E.1]	Comply with the facility-wide averaging plan as approved by DEQ.
7	[LAC 33:III.2201.H.2.a.i]	Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter. Which Months: May-Sep Statistical Basis: None specified
8	[LAC 33:III.2201.H.2.a.ii]	Oxygen monitored by the regulation's specified method(s) continuously. Monitor oxygen concentration with an oxygen monitor. Which Months: May-Sep Statistical Basis: None specified
9	[LAC 33:III.2201.H.2.a.iii]	Operate the process heater/furnace within the fuel and oxygen limits established during the initial compliance run.
10	[LAC 33:III.2201.H.9]	Fuel monitored by the regulation's specified method(s) daily. Analyze the fuel gas composition according to the methods listed in LAC 33:III.2201.G.5.g. Which Months: May-Sep Statistical Basis: None specified
11	[LAC 33:III.2201.H.9]	Fuel recordkeeping by electronic or hard copy daily. Record fuel gas composition.
12	[LAC 33:III.2201.I.1]	Submit Notification: Due at least 30 days prior to any compliance testing conducted under LAC 33:III.2201.G and any CEMS or PEMS performance evaluation conducted under LAC 33:III.2201.H in order to give DEQ an opportunity to conduct a pretest meeting and observe the emission testing.
13	[LAC 33:III.2201.I.1]	Submit test results: Due within 60 days after completing the emission testing required in LAC 33:III.2201.I.1.
14	[LAC 33:III.2201.I.2]	Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC 33:III.2201.D or E. Include the information specified in LAC 33:III.2201.I.2.a through I.2.d.

EQT0005 1-81 - Reformer Flue Gas Stack, Unit 2

15	[LAC 33:III.1101.B]	Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

EQT0005 1-81 - Reformer Flue Gas Stack, Unit 2

16	[LAC 33:III.1313.C]	Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel). Which Months: All Year Statistical Basis: None specified
17	[LAC 33:III.2201.E.1.a]	Establish an emission factor for each applicable affected point source such that if each affected point sources was operated at its averaging capacity, the cumulative emission factor in pounds NOx/MMBtu from all point sources in the averaging group would not exceed the facility-wide emission factor. Use the equations in LAC 33:III.2201.E.a to calculate the cumulative emission rate and the facility-wide emission factor.
18	[LAC 33:III.2201.E.1.c]	Demonstrate compliance with the facility-wide averaging plan using either the method in LAC 33:III.2201.E.1.c.i or the method in LAC 33:III.2201.E.1.c.ii.
19	[LAC 33:III.2201.E.1.i]	Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Carry out recordkeeping that includes, but is not limited to, a record of the data on which the determination of each point source's hourly, daily, or 30-day, as appropriate, compliance with the facility-wide averaging plan is based.
20	[LAC 33:III.2201.E.1]	Comply with the facility-wide averaging plan as approved by DEQ.
21	[LAC 33:III.2201.H.2.a.i]	Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter. Which Months: May-Sep Statistical Basis: None specified
22	[LAC 33:III.2201.H.2.a.ii]	Oxygen monitored by the regulation's specified method(s) continuously. Monitor oxygen concentration with an oxygen monitor. Which Months: May-Sep Statistical Basis: None specified
23	[LAC 33:III.2201.H.2.a.iii]	Operate the process heater/furnace within the fuel and oxygen limits established during the initial compliance run.
24	[LAC 33:III.2201.H.9]	Fuel monitored by the regulation's specified method(s) daily. Analyze the fuel gas composition according to the methods listed in LAC 33:III.2201.G.5.g. Which Months: May-Sep Statistical Basis: None specified
25	[LAC 33:III.2201.H.9]	Fuel recordkeeping by electronic or hard copy daily. Record fuel gas composition.
26	[LAC 33:III.2201.I.1]	Submit Notification: Due at least 30 days prior to any compliance testing conducted under LAC 33:III.2201.G and any CEMS or PEMS performance evaluation conducted under LAC 33:III.2201.H in order to give DEQ an opportunity to conduct a pretest meeting and observe the emission testing.
27	[LAC 33:III.2201.I.1]	Submit test results: Due within 60 days after completing the emission testing required in LAC 33:III.2201.I.1.
28	[LAC 33:III.2201.I.2]	Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC 33:III.2201.D or E. Include the information specified in LAC 33:III.2201.I.2.a through I.2.d.

EQT0006 1-89 - Unit 1 Cold Box West Flare

29	[LAC 33:III.1105]	Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Which Months: All Year Statistical Basis: None specified
30	[LAC 33:III.501.C.6]	Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. State Only.
31	[LAC 33:III.501.C.6]	Determine the actual exit velocity by the method specified in 40 CFR 60.18(f)(4). State Only.

SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

EQT0006 1-89 - Unit 1 Cold Box West Flare

32	[LAC 33:III.501.C.6]	Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4) except during periods of of startup and shutdown, permittee shall, to the extent practicable, maintain and operate the flare in a manner consistent with good air pollution control practice for minimizing emissions. State Only. Which Months: All Year Statistical Basis: None specified
33	[LAC 33:III.501.C.6]	Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). State Only. Which Months: All Year Statistical Basis: None specified
34	[LAC 33:III.501.C.6]	Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). State Only.

EQT0007 1-91 - CO Flare

35	[LAC 33:III.1105]	Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Which Months: All Year Statistical Basis: None specified
36	[LAC 33:III.501.C.6]	Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. State Only.
37	[LAC 33:III.501.C.6]	Determine the actual exit velocity by the method specified in 40 CFR 60.18(f)(4). State Only.
38	[LAC 33:III.501.C.6]	Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4) except during periods of startup and shutdown, permittee shall, to the extent practicable, maintain and operate the flare in a manner consistent with good air pollution control practice for minimizing emissions. State Only. Which Months: All Year Statistical Basis: None specified
39	[LAC 33:III.501.C.6]	Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). State Only. Which Months: All Year Statistical Basis: None specified
40	[LAC 33:III.501.C.6]	Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). State Only.

EQT0008 1-93 - Formaldehyde Storage Tank (T-03B)

41	[40 CFR 60.116b(b)]	Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
42	[40 CFR 60.116b(c)]	VOL storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.116b(c)]
43	[40 CFR 60.116b(d)]	Submit notification: Due within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. Subpart Kb. [40 CFR 60.116b(d)]

EQT0009 1-94 - Tank Farm Flare

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SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
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EQT0009 1-94 - Tank Farm Flare

44	[LAC 33:III.1105]	Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Which Months: All Year Statistical Basis: None specified
45	[LAC 33:III.2115.B]	Nonhalogenated hydrocarbon burning: Temperature >= 1600 F (870 degrees C) for 0.5 seconds or greater in a direct-flame afterburner or thermal incinerator. Other devices will be accepted provided 98 percent or greater VOC destruction or removal efficiency can be demonstrated, as determined in accordance with LAC 33:III.2115.J.1, or if emissions are reduced to 20 ppm by volume, whichever is less stringent. Which Months: All Year Statistical Basis: None specified
46	[LAC 33:III.501.C.6]	Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. State Only.
47	[LAC 33:III.501.C.6]	Determine the actual exit velocity by the method specified in 40 CFR 60.18(f)(4). State Only.
48	[LAC 33:III.501.C.6]	Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4) except during periods ofstartup and shutdown, permittee shall, to the extent practicable, maintain and operate the flare in a manner consistent with good air pollution control practice for minimizing emissions. State Only. Which Months: All Year Statistical Basis: None specified
49	[LAC 33:III.501.C.6]	Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). State Only. Which Months: All Year Statistical Basis: None specified
50	[LAC 33:III.501.C.6]	Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). State Only.

EQT0010 10-95 - Unit 6 Main Flare

51	[LAC 33:III.501.C.6]	Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. State Only.
52	[LAC 33:III.501.C.6]	Determine the actual exit velocity by the method specified in 40 CFR 60.18(f)(4). State Only.
53	[LAC 33:III.501.C.6]	Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4) except during periods of startup and shutdown, permittee shall, to the extent practicable, maintain and operate the flare in a manner consistent with good air pollution control practice for minimizing emissions. State Only. Which Months: All Year Statistical Basis: None specified
54	[LAC 33:III.501.C.6]	Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). State Only. Which Months: All Year Statistical Basis: None specified
55	[LAC 33:III.501.C.6]	Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). State Only.

EQT0014 2-71 - Unit 1 MEA Flare

56	[LAC 33:III.1105]	Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Which Months: All Year Statistical Basis: None specified

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SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
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EQT0014 2-71 - Unit 1 MEA Flare

57	[LAC 33:III.501.C.6]	Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. State Only.
58	[LAC 33:III.501.C.6]	Determine the actual exit velocity by the method specified in 40 CFR 60.18(f)(4). State Only.
59	[LAC 33:III.501.C.6]	Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4) except during periods of startup and shutdown, permittee shall, to the extent practicable, maintain and operate the flare in a manner consistent with good air pollution control practice for minimizing emissions. State Only. Which Months: All Year Statistical Basis: None specified
60	[LAC 33:III.501.C.6]	Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). State Only. Which Months: All Year Statistical Basis: None specified
61	[LAC 33:III.501.C.6]	Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). State Only.

EQT0015 2-81 - Unit 2 Main Flare

62	[LAC 33:III.1105]	Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Which Months: All Year Statistical Basis: None specified
63	[LAC 33:III.501.C.6]	Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. State Only.
64	[LAC 33:III.501.C.6]	Determine the actual exit velocity by the method specified in 40 CFR 60.18(f)(4). State Only.
65	[LAC 33:III.501.C.6]	Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4) except during periods of startup and shutdown, permittee shall, to the extent practicable, maintain and operate the flare in a manner consistent with good air pollution control practice for minimizing emissions. State Only. Which Months: All Year Statistical Basis: None specified
66	[LAC 33:III.501.C.6]	Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). State Only. Which Months: All Year Statistical Basis: None specified
67	[LAC 33:III.501.C.6]	Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). State Only.

EQT0016 2-88 - Reformer Flue Gas Stack, Unit 3

68	[LAC 33:III.1101.B]	Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). Which Months: All Year Statistical Basis: None specified
69	[LAC 33:III.1313.C]	Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel). Which Months: All Year Statistical Basis: None specified

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SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
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EQT0016 2-88 - Reformer Flue Gas Stack, Unit 3

70	[LAC 33:III.2201.E.1.a]	Establish an emission factor for each applicable affected point source such that if each affected point sources was operated at its averaging capacity, the cumulative emission factor in pounds NOx/MMBtu from all point sources in the averaging group would not exceed the facility-wide emission factor. Use the equations in LAC 33:III.2201.E.a to calculate the cumulative emission rate and the facility-wide emission factor.
71	[LAC 33:III.2201.E.1.c]	Demonstrate compliance with the facility-wide averaging plan using either the method in LAC 33:III.2201.E.1.c.i or the method in LAC 33:III.2201.E.1.c.ii.
72	[LAC 33:III.2201.E.1.i]	Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Carry out recordkeeping that includes, but is not limited to, a record of the data on which the determination of each point source's hourly, daily, or 30-day, as appropriate, compliance with the facility-wide averaging plan is based.
73	[LAC 33:III.2201.E.1]	Comply with the facility-wide averaging plan as approved by DEQ.
74	[LAC 33:III.2201.H.2.a.i]	Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter. Which Months: May-Sep Statistical Basis: None specified
75	[LAC 33:III.2201.H.2.a.ii]	Oxygen monitored by the regulation's specified method(s) continuously. Monitor oxygen concentration with an oxygen monitor. Which Months: May-Sep Statistical Basis: None specified
76	[LAC 33:III.2201.H.2.a.iii]	Operate the process heater/furnace within the fuel and oxygen limits established during the initial compliance run.
77	[LAC 33:III.2201.I.1]	Submit Notification: Due at least 30 days prior to any compliance testing conducted under LAC 33:III.2201.G and any CEMS or PEMS performance evaluation conducted under LAC 33:III.2201.H in order to give DEQ an opportunity to conduct a pretest meeting and observe the emission testing.
78	[LAC 33:III.2201.I.1]	Submit test results: Due within 60 days after completing the emission testing required in LAC 33:III.2201.I.1.
79	[LAC 33:III.2201.I.2]	Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC 33:III.2201.D or E. Include the information specified in LAC 33:III.2201.I.2.a through I.2.d.

EQT0017 2-89 - Unit 1 Cold Box East Flare

80	[LAC 33:III.1105]	Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Which Months: All Year Statistical Basis: None specified
81	[LAC 33:III.501.C.6]	Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. State Only.
82	[LAC 33:III.501.C.6]	Determine the actual exit velocity by the method specified in 40 CFR 60.18(f)(4). State Only.
83	[LAC 33:III.501.C.6]	Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4) except during periods of startup and shutdown, permittee shall, to the extent practicable, maintain and operate the flare in a manner consistent with good air pollution control practice for minimizing emissions. State Only. Which Months: All Year Statistical Basis: None specified
84	[LAC 33:III.501.C.6]	Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). State Only. Which Months: All Year Statistical Basis: None specified
85	[LAC 33:III.501.C.6]	Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). State Only.

SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
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EQT0018 2-93 - Formaldehyde Storage Tank (T-02B)

86	[40 CFR 60.116b(b)]	Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
87	[40 CFR 60.116b(c)]	VOL storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.116b(c)]
88	[40 CFR 60.116b(d)]	Submit notification: Due within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. Subpart Kb. [40 CFR 60.116b(d)]

EQT0019 2-94 - Methanol Flare

89	[LAC 33:III.1105]	Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Which Months: All Year Statistical Basis: None specified
90	[LAC 33:III.2115.B]	Nonhalogenated hydrocarbon burning: Temperature >= 1600 F (870 degrees C) for 0.5 seconds or greater in a direct-flame afterburner or thermal incinerator. Other devices will be accepted provided 98 percent or greater VOC destruction or removal efficiency can be demonstrated, as determined in accordance with LAC 33:III.2115.J.1, or if emissions are reduced to 20 ppm by volume, whichever is less stringent. Which Months: All Year Statistical Basis: None specified
91	[LAC 33:III.501.C.6]	Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. State Only.
92	[LAC 33:III.501.C.6]	Determine the actual exit velocity by the method specified in 40 CFR 60.18(f)(4). State Only.
93	[LAC 33:III.501.C.6]	Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4) except during periods of startup and shutdown, permittee shall, to the extent practicable, maintain and operate the flare in a manner consistent with good air pollution control practice for minimizing emissions. State Only. Which Months: All Year Statistical Basis: None specified
94	[LAC 33:III.501.C.6]	Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). State Only. Which Months: All Year Statistical Basis: None specified
95	[LAC 33:III.501.C.6]	Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). State Only.

EQT0020 2-96 - Unit 6 Cold Box Flare

96	[LAC 33:III.1105]	Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Which Months: All Year Statistical Basis: None specified
97	[LAC 33:III.501.C.6]	Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. State Only.
98	[LAC 33:III.501.C.6]	Determine the actual exit velocity by the method specified in 40 CFR 60.18(f)(4). State Only.

SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
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EQT0020 2-96 - Unit 6 Cold Box Flare

99	[LAC 33:III.501.C.6]	Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4) except during periods of startup and shutdown, permittee shall, to the extent practicable, maintain and operate the flare in a manner consistent with good air pollution control practice for minimizing emissions. State Only. Which Months: All Year Statistical Basis: None specified
100	[LAC 33:III.501.C.6]	Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). State Only. Which Months: All Year Statistical Basis: None specified
101	[LAC 33:III.501.C.6]	Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). State Only.

EQT0023 3-71 - Unit 1 Main Flare

102	[40 CFR 60.18(c)(4)(i)]	Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4) except during periods of startup and shutdown, permittee shall, to the extent practicable, maintain and operate the flare in a manner consistent with good air pollution control practice for minimizing emissions. State Only. [40 CFR 60.18(c)(4)(i)] Which Months: All Year Statistical Basis: None specified
103	[LAC 33:III.1105]	Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Which Months: All Year Statistical Basis: None specified
104	[LAC 33:III.501.C.6]	Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. State Only.
105	[LAC 33:III.501.C.6]	Determine the actual exit velocity by the method specified in 40 CFR 60.18(f)(4). State Only.
106	[LAC 33:III.501.C.6]	Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). State Only. Which Months: All Year Statistical Basis: None specified
107	[LAC 33:III.501.C.6]	Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). State Only.

EQT0027 4-96 - T9 Off-Spec. Methanol Storage Tank (T-09B)

108	[LAC 33:III.2103.A]	Equip with a submerged fill pipe.
109	[LAC 33:III.2103.H.3]	Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
110	[LAC 33:III.2103.I]	Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.

EQT0029 5-96 - Methanol Shift Tank (D-110A)

111	[LAC 33:III.2103.A]	Maintain working pressures sufficient at all times under normal operating conditions to prevent vapor or gas loss to the atmosphere.
112	[LAC 33:III.2103.H.3]	Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.

SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
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EQT0029 5-96 - Methanol Shift Tank (D-110A)

113	[LAC 33:III.2103.I]	Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in *LAC 33:III.2103.I.1 - 7, as applicable.*

EQT0032 6-96 - Methanol Shift Tank (D-110B)

114	[LAC 33:III.2103.A]	Maintain working pressures sufficient at all times under normal operating conditions to prevent vapor or gas loss to the atmosphere.
115	[LAC 33:III.2103.H.3]	Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
116	[LAC 33:III.2103.I]	Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.

EQT0034 7-93 - Methanol Storage Tank (T-07B)

117	[40 CFR 60.112b(a)(1)(ii)(B)]	Equip internal floating roof with two seals mounted secondary above the primary so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The primary seal may be vapor-mounted, but both must be continuous. Subpart Kb. [40 CFR 60.112b(a)(1)(ii)(B)]
118	[40 CFR 60.113b(a)(3)(i)]	Tank roof and seals monitored by visual inspection/determination once every five years as specified in 40 CFR 60.113b(a)(4). Subpart Kb. [40 CFR 60.113b(a)(3)(i)] Which Months: All Year Statistical Basis: None specified
119	[40 CFR 60.115b(a)(1)]	Submit a report: *Due to DEQ as an attachment to the notification required by 40 CFR 60.7(a)(3).* This report shall describe the control equipment and certify that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and 60.113b(a)(1). Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(1)]
120	[40 CFR 60.115b(a)(2)]	Inspection records recordkeeping by electronic or hard copy upon each occurrence of inspection, per 40 CFR 60.113b(a)(1) through (4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.115b(a)(2)]
121	[40 CFR 60.115b(a)(3)]	Submit a report: Due to DEQ within 30 days of the annual visual inspection required by 40 CFR 60.113b(a)(2) that detects any of the conditions described in 40 CFR 60.113b(a)(2). Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(3)]
122	[40 CFR 60.115b(a)(4)]	Submit a report: *Due to DEQ within 30 days of each inspection required by 40 CFR 60.113b(a)(3)* that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii). The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR 61.112b(a)(1) or 40 CFR. 60.113b(a)(3) and list each repair made. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(4)]
123	[40 CFR 60.116b(b)]	Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
124	[40 CFR 60.116b(c)]	VOL storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.116b(c)]

SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
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EQT0034 7-93 - Methanol Storage Tank (T-07B)

125	[LAC 33:III.2103.B]	Equip with a submerged fill pipe.
126	[LAC 33:III.2103.C.1.c]	Equip internal floating roof with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
127	[LAC 33:III.2103.C.2]	Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover.
128	[LAC 33:III.2103.I]	Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.

EQT0036 9-95 - Reformer Flue Gas Stack, Unit 6

129	[LAC 33:III.1101.B]	Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). Which Months: All Year Statistical Basis: None specified
130	[LAC 33:III.1313.C]	Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel). Which Months: All Year Statistical Basis: None specified
131	[LAC 33:III.2201.E.1.a]	Establish an emission factor for each applicable affected point source such that if each affected point sources was operated at its averaging capacity, the cumulative emission factor in pounds NOx/MMBtu from all point sources in the averaging group would not exceed the facility-wide emission factor. Use the equations in LAC 33:III.2201.E.a to calculate the cumulative emission rate and the facility-wide emission factor.
132	[LAC 33:III.2201.E.1.c]	Demonstrate compliance with the facility-wide averaging plan using either the method in LAC 33:III.2201.E.1.c.i or the method in LAC 33:III.2201.E.1.c.ii.
133	[LAC 33:III.2201.E.1.i]	Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Carry out recordkeeping that includes, but is not limited to, a record of the data on which the determination of each point source's hourly, daily, or 30-day, as appropriate, compliance with the facility-wide averaging plan is based.
134	[LAC 33:III.2201.E.1]	Comply with the facility-wide averaging plan as approved by DEQ.
135	[LAC 33:III.2201.H.10]	Test NOx emissions after each occurrence of catalyst replacement. Maintain documentation on-site, if practical, of the date, the person doing the test, and the test results. Make documentation available for inspection upon request.
136	[LAC 33:III.2201.H.2.b.i]	Fuel monitored by totalizer continuously. Monitor fuel usage with a totalizing fuel meter. Which Months: May-Sep Statistical Basis: None specified
137	[LAC 33:III.2201.H.2.b.ii]	Diluent - either Oxygen or Carbon dioxide monitored by the regulation's specified method(s) continuously. Monitor oxygen or carbon dioxide with a diluent monitor. Which Months: May-Sep Statistical Basis: None specified
138	[LAC 33:III.2201.H.2.b.iii]	Nitrogen oxides monitored by continuous emission monitor (CEM) continuously. Which Months: May-Sep Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
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EQT0036 9-95 - Reformer Flue Gas Stack, Unit 6

139	[LAC 33:III.2201.H.2.b.iv]	Carbon monoxide monitored by the regulation's specified method(s) continuously. Monitor carbon monoxide with a CO monitor. Which Months: May-Sep Statistical Basis: None specified
140	[LAC 33:III.2201.H.7]	Carbon monoxide monitored by the regulation's specified method(s) continuously. Monitor carbon monoxide using a CO monitor. Which Months: May-Sep Statistical Basis: None specified
141	[LAC 33:III.2201.H.7]	Nitrogen oxides monitored by continuous emission monitor (CEM) continuously. Which Months: May-Sep Statistical Basis: None specified
142	[LAC 33:III.2201.I.1]	Submit Notification: Due at least 30 days prior to any compliance testing conducted under LAC 33:III.2201.G and any CEMS or PEMS performance evaluation conducted under LAC 33:III.2201.H in order to give DEQ an opportunity to conduct a pretest meeting and observe the emission testing.
143	[LAC 33:III.2201.I.1]	Submit test results: Due within 60 days after completing the emission testing required in LAC 33:III.2201.I.1.
144	[LAC 33:III.2201.I.2]	Submit report: Due within 90 days of the end of each quarter for any noncompliance of the applicable emission limitations of LAC 33:III.2201.D or E. Include the information specified in LAC 33:III.2201.I.2.a through I.2.d.
145	[LAC 33:III.2201.I.5]	Submit report: Due annually, by the 1st of July. Submit ammonia emissions resulting from the operation of a NOx control equipment system in accordance with LAC 33:III.919.
146	[LAC 33:III.2201.I]	Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information specified in LAC 33:III.2201.I.3 and I.4 as applicable.
147	[LAC 33:III.501.C.6]	Ammonia emissions from the Selective Catalytic Reduction (SCR) Unit shall be calculated using the ammonia feed meter to the SCR and the two NOx CEMs (one upstream of SCR and one downstream of SCR). NOx converted in the SCR is determined from the two CEM readings and ammonia slip can then be determined because of the stoichiometric relationship that one lb-mole of NOx converted consumes one lb-mole of ammonia.

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148	[40 CFR 60.482-1(a)]	Demonstrate compliance with the requirements of 40 CFR 60.482-1 to 40 CFR 60.482-10 for all equipment within 180 days of initial startup. Subpart VV. [40 CFR 60.482-1(a)]
149	[40 CFR 60.482-2(a)(1)]	Pumps in light liquid service (no dual mechanical seal system): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks by the methods specified in 40 CFR 60.485(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-2(c). Subpart VV. [40 CFR 60.482-2(a)(1)] Which Months: All Year Statistical Basis: None specified
150	[40 CFR 60.482-2(a)(2)]	Pumps in light liquid service (no dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar) for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-2(c). Subpart VV. [40 CFR 60.482-2(a)(2)] Which Months: All Year Statistical Basis: None specified
151	[40 CFR 60.482-2(c)]	Pumps in light liquid service (no dual mechanical seal system): When a leak is detected, make a first attempt at repair no later than 5 calendar days after each leak is detected and complete repairs no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. Subpart VV. [40 CFR 60.482-2(c)]

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152	[40 CFR 60.482-2(d)(1)]	Pumps in light liquid service (dual mechanical seal system): Operate the seal system with the barrier fluid at a pressure that is greater than the pump stuffing box pressure; OR equip the seal system with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 CFR 60.482-10; OR equip the seal system with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(1)]
153	[40 CFR 60.482-2(d)(2)]	Pumps in light liquid service (dual mechanical seal system): Ensure that the barrier fluid is in heavy liquid service or not in VOC service. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(2)]
154	[40 CFR 60.482-2(d)(3)]	Pumps in light liquid service (dual mechanical seal system): Equip each barrier fluid system with a sensor that will detect failure of the seal system, barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(3)]
155	[40 CFR 60.482-2(d)(4)]	Pumps in light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar) for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-2(d)(6)(ii) and (iii). Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(4)] Which Months: All Year Statistical Basis: None specified
156	[40 CFR 60.482-2(d)(5)(i)]	Pumps in light liquid service (dual mechanical seal system): Equipment/operational data monitored by visual inspection/determination daily, or equip the sensor with an audible alarm. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in 40 CFR 60.482-2(d)(5)(ii), a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-2(d)(6)(ii) and (iii). Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(5)(i)] Which Months: All Year Statistical Basis: None specified
157	[40 CFR 60.482-2(d)(5)(ii)]	Pumps in light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(5)(ii)]
158	[40 CFR 60.482-2(d)(6)]	Pumps in light liquid service (dual mechanical seal system): When a leak is detected, make a first attempt at repair no later than 5 calendar days after each leak is detected and complete repairs no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(6)]
159	[40 CFR 60.482-2(e)(3)]	Pumps in light liquid service (no detectable emissions): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially and annually, and at other times requested by DEQ. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a), (c), and (d). Subpart VV. [40 CFR 60.482-2(e)(3)] Which Months: All Year Statistical Basis: None specified
160	[40 CFR 60.482-2(g)(1)]	Pumps in light liquid service (unsafe-to-monitor): Demonstrate that the pump is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a). Comply with this requirement instead of the monitoring and inspection requirements in 40 CFR 60.482-2(a) and (d)(4) through (6). Subpart VV. [40 CFR 60.482-2(g)(1)]

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161	[40 CFR 60.482-2(g)(2)]	Pumps in light liquid service (unsafe-to-monitor): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires monitoring of the pump as frequently as practicable during safe to monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. Comply with this requirement instead of the monitoring and inspection requirements in 40 CFR 60.482-2(a) and (d)(4) through (6). Subpart VV. [40 CFR 60.482-2(g)(2)] Which Months: All Year Statistical Basis: None specified
162	[40 CFR 60.482-2(h)]	Pumps in light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency. Comply with this requirement instead of the weekly visual inspection requirement in 40 CFR 60.482-2(a)(2) and (d)(4) and instead of the daily requirements in 40 CFR 482-2(d)(5). Subpart VV. [40 CFR 60.482-2(h)] Which Months: All Year Statistical Basis: None specified
163	[40 CFR 60.482-3(a)]	Compressors: Equip with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as specified in 40 CFR 60.482-1(c) and 40 CFR 60.482-3(h) and (i). Subpart VV. [40 CFR 60.482-3(a)]
164	[40 CFR 60.482-3(b)]	Compressors: Operate the seal system with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or equip the seal system with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 CFR 60.482-10; or equip the seal system with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. Subpart VV. [40 CFR 60.482-3(b)]
165	[40 CFR 60.482-3(c)]	Compressors: Ensure that the barrier fluid is in heavy liquid service or not in VOC service. Subpart VV. [40 CFR 60.482-3(c)]
166	[40 CFR 60.482-3(d)]	Compressors: Equip each barrier fluid system as described in 40 CFR 60.482-3(a) with a sensor that will detect failure of the seal system, barrier fluid system, or both. Subpart VV. [40 CFR 60.482-3(d)]
167	[40 CFR 60.482-3(e)(1)]	Compressors (sensor): Equipment/operational data monitored by visual inspection/determination daily, or equip with an audible alarm. If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under 40 CFR 60.482-3(e)(2), a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-3(g). Subpart VV. [40 CFR 60.482-3(e)(1)] Which Months: All Year Statistical Basis: None specified
168	[40 CFR 60.482-3(e)(2)]	Compressors (sensor): Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. Subpart VV. [40 CFR 60.482-3(e)(2)]
169	[40 CFR 60.482-3(g)]	Compressors: When a leak is detected, make a first attempt at repair no later than 5 calendar days after each leak is detected and complete repairs no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. Subpart VV. [40 CFR 60.482-3(g)]
170	[40 CFR 60.482-3(i)(2)]	Compressors (no detectable emissions): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially and annually, and at other times requested by DEQ. Comply with this requirement instead of the requirements in 40 CFR 60.482-3(a) through (h). Subpart VV. [40 CFR 60.482-3(i)(2)] Which Months: All Year Statistical Basis: None specified
171	[40 CFR 60.482-4(a)]	Pressure relief devices in gas/vapor service: VOC, Total < 500 ppm above background, except during pressure releases, as determined by the methods specified in 40 CFR 60.485(c). Subpart VV. [40 CFR 60.482-4(a)] Which Months: All Year Statistical Basis: None specified
172	[40 CFR 60.482-4(b)(1)]	Pressure relief devices in gas/vapor service: After each pressure release, return to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. Subpart VV. [40 CFR 60.482-4(b)(1)]

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173	[40 CFR 60.482-4(b)(2)]	Pressure relief devices in gas/vapor service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) after a pressure release, to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as specified in 40 CFR 60.485(c). Subpart VV. [40 CFR 60.482-4(b)(2)] Which Months: All Year Statistical Basis: None specified
174	[40 CFR 60.482-4(d)(2)]	Pressure relief devices in gas/vapor service (rupture disk): After each pressure release, install a new rupture disk upstream of the pressure relief device, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. Comply with this requirement instead of the requirements in 40 CFR 60.482-4(d)(2)(a) and (b). Subpart VV. [40 CFR 60.482-4(d)(2)]
175	[40 CFR 60.482-5]	Sampling connection systems: Equip with a closed-purged, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Operate the system as specified in 40 CFR 60.482-5(a) and (b). Subpart VV.
176	[40 CFR 60.482-6]	Open-ended valves or lines: Equip with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. Operate each open-ended valve or line equipped with a second valve such that the valve on the process fluid end is closed before the second valve is closed. The bleed valve or line may remain open during operations requiring venting the line between the block valves of a double block-and-bleed system, but shall comply with 40 CFR 60.482-6(a) at all other times. Subpart VV.
177	[40 CFR 60.482-7(d)]	Valves in gas/vapor service and in light liquid service: When a leak is detected, make a first attempt at repair no later than 5 calendar days after each leak is detected and complete repairs no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. Subpart VV. [40 CFR 60.482-7(d)]
178	[40 CFR 60.482-7(f)(3)]	Valves in gas/vapor service and in light liquid service (no detectable emissions): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially and annually, and at other times requested by DEQ. Comply with this requirement instead of the requirements in 40 CFR 60.482-7(a). Subpart VV. [40 CFR 60.482-7(f)(3)] Which Months: All Year Statistical Basis: None specified
179	[40 CFR 60.482-7(g)(1)]	Valves in gas/vapor service and in light liquid service (unsafe-to-monitor): Demonstrate that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a). Comply with this requirement instead of the requirements in 40 CFR 60.482-7(a). Subpart VV. [40 CFR 60.482-7(g)(1)]
180	[40 CFR 60.482-7(g)(2)]	Valves in gas/vapor service and in light liquid service (unsafe-to-monitor): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Adhere to a written plan that requires monitoring of the valve as frequently as practicable during safe to monitor times. Comply with this requirement instead of the requirements in 40 CFR 60.482-7(a). Subpart VV. [40 CFR 60.482-7(g)(2)] Which Months: All Year Statistical Basis: None specified
181	[40 CFR 60.482-7(h)(1)]	Valves in gas/vapor service and in light liquid service (difficult-to-monitor): Demonstrate that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface. Comply with this requirement instead of the requirements in 40 CFR 60.482-7(a). Subpart VV. [40 CFR 60.482-7(h)(1)]
182	[40 CFR 60.482-7(h)(3)]	Valves in gas/vapor service and in light liquid service (difficult-to-monitor): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually. Follow a written plan that requires monitoring of the valve at least once per calendar year. Comply with this requirement instead of the requirements in 40 CFR 60.482-7(a). Subpart VV. [40 CFR 60.482-7(h)(3)] Which Months: All Year Statistical Basis: None specified

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183	[40 CFR 60.482-7]	Valves in gas/vapor service and in light liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks by the methods specified in 40 CFR 60.485(b). Permittee may elect to comply with the alternate standards in 40 CFR 60.482-7(c), 60.483-1, or 60.483-2. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-7(d). Subpart VV. Which Months: All Year Statistical Basis: None specified
184	[40 CFR 60.482-8(a)]	Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) by the method specified in 40 CFR 60.485(b), if evidence of a potential leak to the atmosphere is found by visible, audible, olfactory, or any other detection method and comply with the requirements of 40 CFR 60.482-8(b) through (d); OR eliminate the indication of a leak. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-8(c). Subpart VV. [40 CFR 60.482-8(a)] Which Months: All Year Statistical Basis: None specified
185	[40 CFR 60.482-8(c)]	*Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors: When a leak is* detected, make a first attempt at repair no later than 5 calendar days after each leak is detected and complete repairs no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. Subpart VV. [40 CFR 60.482-8(c)]
186	[40 CFR 60.485]	In conducting the performance tests required in 40 CFR 60.8, use as reference methods and procedures the test methods in Appendix A of Part 60 or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). Conduct any other required demonstrations using the test methods and procedures outlined. Subpart VV.
187	[40 CFR 60.486]	Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and maintain records as specified 40 CFR 60.486(a) through (k). Subpart VV.
188	[40 CFR 60.487(d)]	Submit notification: Due 90 days before implementing either of the alternative standards contained in 40 CFR 60.483-1or 60.483-2. Notify DEQ of the provision selected. Subpart VV. [40 CFR 60.487(d)]
189	[40 CFR 60.487(e)]	Submit performance test results: Due in accordance with 40 CFR 60.8 of the General Provisions. Subpart VV. [40 CFR 60.487(e)]
190	[40 CFR 60.487]	*Submit semiannual report: Due semiannually to DEQ beginning six months after the initial startup date. Submit the information specified in 40* CFR 60.487(b) and (c). Subpart VV.

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191	[40 CFR 60.482-1(a)]	Demonstrate compliance with the requirements of 40 CFR 60.482-1 to 40 CFR 60.482-10 for all equipment within 180 days of initial startup. Subpart VV. [40 CFR 60.482-1(a)]
192	[40 CFR 60.482-2(a)(1)]	Pumps in light liquid service (no dual mechanical seal system): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks by the methods specified in 40 CFR 60.485(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-2(c). Subpart VV. [40 CFR 60.482-2(a)(1)] Which Months: All Year Statistical Basis: None specified
193	[40 CFR 60.482-2(a)(2)]	Pumps in light liquid service (no dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar) for indications of liquids dripping from the pump seal. *If there are indications of liquids dripping from the pump seal, a leak is* detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-2(c). Subpart VV. [40 CFR 60.482-2(a)(2)] Which Months: All Year Statistical Basis: None specified

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194	[40 CFR 60.482-2(c)]	Pumps in light liquid service (no dual mechanical seal system): When a leak is detected, make a first attempt at repair no later than 5 calendar days after each leak is detected and complete repairs no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. Subpart VV. [40 CFR 60.482-2(c)]
195	[40 CFR 60.482-2(d)(1)]	Pumps in light liquid service (dual mechanical seal system): Operate the seal system with the barrier fluid at a pressure that is greater than the pump stuffing box pressure; OR equip the seal system with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 CFR 60.482-10; OR equip the seal system with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(1)]
196	[40 CFR 60.482-2(d)(2)]	Pumps in light liquid service (dual mechanical seal system): Ensure that the barrier fluid is in heavy liquid service or not in VOC service. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(2)]
197	[40 CFR 60.482-2(d)(3)]	Pumps in light liquid service (dual mechanical seal system): Equip each barrier fluid system with a sensor that will detect failure of the seal system, barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(3)]
198	[40 CFR 60.482-2(d)(4)]	Pumps in light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar) for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-2(d)(6)(ii) and (iii). Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(4)] Which Months: All Year Statistical Basis: None specified
199	[40 CFR 60.482-2(d)(5)(i)]	Pumps in light liquid service (dual mechanical seal system): Equipment/operational data monitored by visual inspection/determination daily, or equip the sensor with an audible alarm. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in 40 CFR 60.482-2(d)(5)(ii), a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-2(d)(6)(ii) and (iii). Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(5)(i)] Which Months: All Year Statistical Basis: None specified
200	[40 CFR 60.482-2(d)(5)(ii)]	Pumps in light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(5)(ii)]
201	[40 CFR 60.482-2(d)(6)]	Pumps in light liquid service (dual mechanical seal system): When a leak is detected, make a first attempt at repair no later than 5 calendar days after each leak is detected and complete repairs no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a). Subpart VV. [40 CFR 60.482-2(d)(6)]
202	[40 CFR 60.482-2(e)(3)]	Pumps in light liquid service (no detectable emissions): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially and annually, and at other times requested by DEQ. Comply with this requirement instead of the requirements in 40 CFR 60.482-2(a), (c), and (d). Subpart VV. [40 CFR 60.482-2(e)(3)] Which Months: All Year Statistical Basis: None specified
203	[40 CFR 60.482-2(g)(1)]	Pumps in light liquid service (unsafe-to-monitor): Demonstrate that the pump is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a). Comply with this requirement instead of the monitoring and inspection requirements in 40 CFR 60.482-2(a) and (d)(4) through (6). Subpart VV. [40 CFR 60.482-2(g)(1)]

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204	[40 CFR 60.482-2(g)(2)]	Pumps in light liquid service (unsafe-to-monitor): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires monitoring of the pump as frequently as practicable during safe to monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. Comply with this requirement instead of the monitoring and inspection requirements in 40 CFR 60.482-2(a) and (d)(4) through (6). Subpart VV. [40 CFR 60.482-2(g)(2)] Which Months: All Year Statistical Basis: None specified
205	[40 CFR 60.482-2(h)]	Pumps in light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency. Comply with this requirement instead of the weekly visual inspection requirement in 40 CFR 60.482-2(a)(2) and (d)(4) and instead of the daily requirements in 40 CFR 482-2(d)(5). Subpart VV. [40 CFR 60.482-2(h)] Which Months: All Year Statistical Basis: None specified
206	[40 CFR 60.482-3(a)]	Compressors: Equip with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as specified in 40 CFR 60.482-1(c) and 40 CFR 60.482-3(h) and (i). Subpart VV. [40 CFR 60.482-3(a)]
207	[40 CFR 60.482-3(b)]	Compressors: Operate the seal system with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or equip the seal system with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 CFR 60.482-10; or equip the seal system with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. Subpart VV. [40 CFR 60.482-3(b)]
208	[40 CFR 60.482-3(c)]	Compressors: Ensure that the barrier fluid is in heavy liquid service or not in VOC service. Subpart VV. [40 CFR 60.482-3(c)]
209	[40 CFR 60.482-3(d)]	Compressors: Equip each barrier fluid system as described in 40 CFR 60.482-3(a) with a sensor that will detect failure of the seal system, barrier fluid system, or both. Subpart VV. [40 CFR 60.482-3(d)]
210	[40 CFR 60.482-3(e)(1)]	Compressors (sensor): Equipment/operational data monitored by visual inspection/determination daily, or equip with an audible alarm. If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under 40 CFR 60.482-3(e)(2), a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-3(g). Subpart VV. [40 CFR 60.482-3(e)(1)] Which Months: All Year Statistical Basis: None specified
211	[40 CFR 60.482-3(e)(2)]	Compressors (sensor): Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. Subpart VV. [40 CFR 60.482-3(e)(2)]
212	[40 CFR 60.482-3(g)]	Compressors: When a leak is detected, make a first attempt at repair no later than 5 calendar days after each leak is detected and complete repairs no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. Subpart VV. [40 CFR 60.482-3(g)]
213	[40 CFR 60.482-3(i)(2)]	Compressors (no detectable emissions): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially and annually, and at other times requested by DEQ. Comply with this requirement instead of the requirements in 40 CFR 60.482-3(a) through (h). Subpart VV. [40 CFR 60.482-3(i)(2)] Which Months: All Year Statistical Basis: None specified
214	[40 CFR 60.482-4(a)]	Pressure relief devices in gas/vapor service: VOC, Total < 500 ppm above background, except during pressure releases, as determined by the methods specified in 40 CFR 60.485(c). Subpart VV. [40 CFR 60.482-4(a)] Which Months: All Year Statistical Basis: None specified
215	[40 CFR 60.482-4(b)(1)]	Pressure relief devices in gas/vapor service: After each pressure release, return to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. Subpart VV. [40 CFR 60.482-4(b)(1)]

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SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

FUG0002 8-93 - Fugitives (Methanol Plant)

216	[40 CFR 60.482-4(b)(2)]	Pressure relief devices in gas/vapor service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) after a pressure release, to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as specified in 40 CFR 60.485(c). Subpart VV. [40 CFR 60.482-4(b)(2)] Which Months: All Year Statistical Basis: None specified
217	[40 CFR 60.482-4(d)(2)]	Pressure relief devices in gas/vapor service (rupture disk): After each pressure release, install a new rupture disk upstream of the pressure relief device, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. Comply with this requirement instead of the requirements in 40 CFR 60.482-4(d)(2)(a) and (b). Subpart VV. [40 CFR 60.482-4(d)(2)]
218	[40 CFR 60.482-5]	Sampling connection systems: Equip with a closed-purged, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Operate the system as specified in 40 CFR 60.482-5(a) and (b). Subpart VV.
219	[40 CFR 60.482-6]	Open-ended valves or lines: Equip with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. Operate each open-ended valve or line equipped with a second valve such that the valve on the process fluid end is closed before the second valve is closed. The bleed valve or line may remain open during operations requiring venting the line between the block valves of a double block-and-bleed system, but shall comply with 40 CFR 60.482-6(a) at all other times. Subpart VV.
220	[40 CFR 60.482-7(d)]	Valves in gas/vapor service and in light liquid service: When a leak is detected, make a first attempt at repair no later than 5 calendar days after each leak is detected and complete repairs no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. Subpart VV. [40 CFR 60.482-7(d)]
221	[40 CFR 60.482-7(f)(3)]	Valves in gas/vapor service and in light liquid service (no detectable emissions): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially and annually, and at other times requested by DEQ. Comply with this requirement instead of the requirements in 40 CFR 60.482-7(a). Subpart VV. [40 CFR 60.482-7(f)(3)] Which Months: All Year Statistical Basis: None specified
222	[40 CFR 60.482-7(g)(1)]	Valves in gas/vapor service and in light liquid service (unsafe-to-monitor): Demonstrate that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a). Comply with this requirement instead of the requirements in 40 CFR 60.482-7(a). Subpart VV. [40 CFR 60.482-7(g)(1)]
223	[40 CFR 60.482-7(g)(2)]	Valves in gas/vapor service and in light liquid service (unsafe-to-monitor): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Adhere to a written plan that requires monitoring of the valve as frequently as practicable during safe to monitor times. Comply with this requirement instead of the requirements in 40 CFR 60.482-7(a). Subpart VV. [40 CFR 60.482-7(g)(2)] Which Months: All Year Statistical Basis: None specified
224	[40 CFR 60.482-7(h)(1)]	Valves in gas/vapor service and in light liquid service (difficult-to-monitor): Demonstrate that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface. Comply with this requirement instead of the requirements in 40 CFR 60.482-7(a). Subpart VV. [40 CFR 60.482-7(h)(1)]
225	[40 CFR 60.482-7(h)(3)]	Valves in gas/vapor service and in light liquid service (difficult-to-monitor): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually. Follow a written plan that requires monitoring of the valve at least once per calendar year. Comply with this requirement instead of the requirements in 40 CFR 60.482-7(a). Subpart VV. [40 CFR 60.482-7(h)(3)] Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

FUG0002 8-93 - Fugitives (Methanol Plant)

226	[40 CFR 60.482-7]	Valves in gas/vapor service and in light liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks by the methods specified in 40 CFR 60.485(b). Permittee may elect to comply with the alternate standards in 40 CFR 60.482-7(c), 60.483-1, or 60.483-2. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-7(d). Subpart VV. Which Months: All Year Statistical Basis: None specified
227	[40 CFR 60.482-8(a)]	Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) by the method specified in 40 CFR 60.485(b), if evidence of a potential leak to the atmosphere is found by visible, audible, olfactory, or any other detection method and comply with the requirements of 40 CFR 60.482-8(b) through (d); OR eliminate the indication of a leak. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 60.482-8(c). Subpart VV. [40 CFR 60.482-8(a)] Which Months: All Year Statistical Basis: None specified
228	[40 CFR 60.482-8(c)]	Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors: When a leak is detected, make a first attempt at repair no later than 5 calendar days after each leak is detected and complete repairs no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. Subpart VV. [40 CFR 60.482-8(c)]
229	[40 CFR 60.485]	In conducting the performance tests required in 40 CFR 60.8, use as reference methods and procedures the test methods in Appendix A of Part 60 or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). Conduct any other required demonstrations using the test methods and procedures outlined. Subpart VV.
230	[40 CFR 60.486]	Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and maintain records as specified 40 CFR 60.486(a) through (k). Subpart VV.
231	[40 CFR 60.487(d)]	Submit notification: Due 90 days before implementing either of the alternative standards contained in 40 CFR 60.483-1or 60.483-2. Notify DEQ of the provision selected. Subpart VV. [40 CFR 60.487(d)]
232	[40 CFR 60.487(e)]	Submit performance test results: Due in accordance with 40 CFR 60.8 of the General Provisions. Subpart VV. [40 CFR 60.487(e)]
233	[40 CFR 60.487]	Submit semiannual report: Due semiannually to DEQ beginning six months after the initial startup date. Submit the information specified in 40 CFR 60.487(b) and (c). Subpart VV.

GRP0006 Emission Cap for Reformers 1, 2, 3, and 6

Group Members: EQT0004 EQT0005 EQT0016 EQT0036

234	[LAC 33:III.501.C.6]	For the propose of the operation flexibility, emissions from the reformers, Emission Points 1-71, 1-81, 2-88, 3-94, and 9-95, shall be limited to no more than the following for each criteria pollutant: CO=31.19 lb/hr, 136.62 TPY; NOx=70.88 lb/hr, 310.45 TPY; PM10=6.41 lb/hr, 28.06 TPY; SO2=0.51 lb/hr, 2.22 TPY; and VOC=6.74 lb/hr, 29.54 TPY. The total emissions for each criteria pollutant shall be calculated and recorded each month, as well as the total emissions for the last twelve months. These records shall be kept on site and available for inspection by the Office of Environmental Compliance, Surveillance Division. Emissions above the cap emission limits for any twelve consecutive month period shall be a violation of this permit and must be reported to the Office of Environmental Compliance, Enforcement Division. A report showing the monthly total emissions for each pollutant, for each month of the preceding semiannual period, as well as the twelve consecutive month total for each month for the preceding semiannual period shall be submitted to the Office of Environmental Compliance, Enforcement Division semiannually in accordance with 40 CFR Part 70 General Conditions.

SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

UNF0001 PRAXAIR GEISMAR FACILITYWIDE EMISSIONS

235	[40 CFR 60.]	All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A.
236	[40 CFR 68.12(b)(1)]	Equipment/operational data recordkeeping by electronic or hard copy continuously. Document that the nearest public receptor is beyond the distance to a toxic or flammable endpoint defined in 68.22. [40 CFR 68.12(b)(1)]
237	[40 CFR 68.12(b)(2)]	Complete the five-year accident history for the process as provided in 68.42. [40 CFR 68.12(b)(2)]
238	[40 CFR 68.12(b)(3)]	Ensure that response actions have been coordinated with local emergency planning and response agencies. [40 CFR 68.12(b)(3)]
239	[40 CFR 68.12(b)(4)]	Include in the RMP the certification specified in 68.12(b)(4). [40 CFR 68.12(b)(4)]
240	[40 CFR 68.150]	Submit Risk Management Plan (RMP): Due no later than June 21, 1999, or three years after the date on which a regulated substance is first listed under 68.130, or the date on which a regulated substance is first present above a threshold quantity in a process. Submit in a method and format to a central point as specified by EPA prior to June 21, 1999.
241	[40 CFR 68.155]	Provide in the RMP an executive summary that includes a brief description of the elements listed in 68.155(a) through (g).
242	[40 CFR 68.160]	Complete a single registration form and include in the RMP. Cover all regulated substances handled in covered processes. Include in the registration the information specified in 68.160(b)(1) through (13).
243	[40 CFR 68.165]	Submit in the RMP information one worst-case release scenario for each Program 1 process. Include the data specified in 68.165(b)(1) through (13).
244	[40 CFR 68.168]	Submit in the RMP the information provided in 68.42(b) on each accident covered by 68.42(a).
245	[40 CFR 68.180]	Provide in the RMP the emergency response information listed in 68.180(a) through (c).
246	[40 CFR 68.190(c)]	Submit revised registration to EPA: Due within six months after a stationary source is no longer subject to 40 CFR 68. Indicate that the stationary source is no longer covered. [40 CFR 68.190(c)]
247	[40 CFR 68.190]	Review and update the RMP as specified in 68.190(b) and submit it in a method and format to a central point specified by EPA prior to June 21, 1999.
248	[40 CFR 68.200]	Maintain records supporting the implementation of 40 CFR 68 for five years unless otherwise provided.
249	[40 CFR 68.22]	Use the endpoints specified in 68.22(a) through (g) for analyses of offsite consequences.
250	[40 CFR 68.25]	Analyze the release scenarios in 68.25, as specified in 68.25(a) through (h).
251	[40 CFR 68.28]	Identify and analyze at least one alternative release scenario for each regulated toxic substance held in a covered process(es) and at least one alternative release scenario to represent all flammable substances held in covered processes, as specified in 68.28(b) through (e).
252	[40 CFR 68.30]	Estimate in the RMP the population within a circle with its center at the point of the release and a radius determined by the distance to the endpoint defined in 68.22(a).
253	[40 CFR 68.33]	List in the RMP environmental receptors within a circle with its center at the point of the release and a radius determined by the distance to the endpoint defined in 68.22(a).
254	[40 CFR 68.36(b)]	Submit revised RMP: Due within six months after changes in processes, quantities stored or handled, or any other aspect of the stationary source increase or decrease the distance to the endpoint by a factor of two or more. [40 CFR 68.36(b)]
255	[40 CFR 68.36]	Review and update the offsite consequence analyses at least once every five years. Complete a revised analysis within six months if changes in processes, quantities stored or handled, or any other aspect of the stationary source might reasonably be expected to increase or decrease the distance to the endpoint by a factor of two or more.

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SPECIFIC REQUIREMENTS

AI ID: 2218 - Praxair Inc - Geismar HYCO Facility
Activity Number: PER20070002
Permit Number: 0180-00031-V2
Air - Title V Regular Permit Renewal

UNF0001 PRAXAIR GEISMAR FACILITYWIDE EMISSIONS

256	[40 CFR 68.39]	Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain the records specified in 68.39(a) through (e) on the offsite consequence analyses.
257	[40 CFR 68.42]	Include in the five-year accident history all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage. Include the information specified in 68.42(b)(1) through (10) for each accidental release.
258	[40 CFR 70.5(a)(1)(iii)]	Submit Title V permit application for renewal: Due 6 months before permit expiration date. [40 CFR 70.5(a)(1)(iii)]
259	[40 CFR 70.6(a)(3)(iii)(A)]	Submit Title V monitoring results report: Due semiannually, by March 31st and September 30th for the preceding periods encompassing July through December and January through June, respectively. Submit reports to the Office of Environmental Compliance, Surveillance Division. Certify reports by a responsible company official. Clearly identify all instances of deviations from permitted monitoring requirements. For previously reported deviations, in lieu of attaching the individual deviation reports, clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. [40 CFR 70.6(a)(3)(iii)(A)]
260	[40 CFR 70.6(a)(3)(iii)(B)]	Submit Title V excess emissions report: Due quarterly, by June 30, September 30, December 31, March 31. Submit reports of all permit deviations to the Office of Environmental Compliance, Surveillance Division. Certify all reports by a responsible official in accordance with 40 CFR 70.5(d). The reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by 40 CFR 70.6(a)(3)(iii)(A) as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. [40 CFR 70.6(a)(3)(iii)(B)]
261	[40 CFR 70.6(c)(5)(iv)]	Submit Title V compliance certification: Due annually, by the 31st of March. Submit to the Office of Environmental Compliance, Surveillance Division. [40 CFR 70.6(c)(5)(iv)]
262	[LAC 33:III.1103]	Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensify an existing traffic hazard condition are prohibited.
263	[LAC 33:III.1303.B]	Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited.
264	[LAC 33:III.2113.A]	Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5.
265	[LAC 33:III.219]	Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance.
266	[LAC 33:III.5609.A]	Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.5611.Tables 5, 6, and 7.
267	[LAC 33:III.5901.A]	Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901.
268	[LAC 33:III.919.D]	Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Air Quality Assessment Division. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D.

PRAXAIR

COPY

Praxair, Inc.
P.O. Box 230
Hwy. 73 - Ave. E
Geismar, LA 70734
Tel (504) 343-1524
Fax (504) 673-3485

November 9, 2007

Certified Mail No. 7007 0220 0002 4211 1131 Return Receipt Requested

Ms. Cathy Lu
Louisiana Department of Environmental Quality
Office of Environmental Services
Air Permits Division
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

original to IOA
copy to Petro/G2/Dyer
AI #

RECEIVED
NOV 14 2007
DEPT. OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES
PERMIT DIVISION

Re: Additional Information for Air Permit Application
Praxair, Inc.
Geismar Plant
Agency Interest No. 2218
Permit Activity No. PER20070002
Air Permit No. 0180-00031-V1

Dear Ms. Lu:

Praxair, Inc. (Praxair) is providing this additional information to revise the ammonia emissions for the Reformers Emission Cap and to add a new emission source, Miscellaneous Steam Vents (4-07), to the air permit application for the above-referenced facility originally submitted May 9, 2007. Based on monitoring data for ammonia emissions from the Unit 6 Reformer, we are reducing the ammonia emission limits from 9.42 tons/year to 7.56 tons/year for the Reformers Emission Cap. The emission calculations and Emission Inventory Questionnaires (EIQs) for Miscellaneous Steam Vents (4-07) and for the Emission Cap for Reformers 1, 2, 3, and 6 are included as **Exhibit 1** and the updated regulatory tables are included as **Exhibit 2**.

In accordance with LAC 33:III.2122.A.6.a, we are notifying the agency that Praxair requests that the Geismar Plant become exempt from LAC 33:III.2122. Praxair will comply with 40 CFR 60.480-489 (Subpart VV) and the leak limitations specified in LAC 33:III.2122.C.1 rather than 10,000 ppm as specified in 40 CFR 60.480-489 (Subpart VV).

I certify, under provisions in Louisiana and United States law which provide criminal penalties for false statements, that based on information and belief formed after reasonable inquiry, the statements and information contained in this revised and additional information for the Application for Approval of Emissions of Air Pollutants, including all attachments thereto and the compliance statement above, are true, accurate, and complete.

PRAXAIR

Praxair, Inc.
P.O. Box 230
Hwy. 73 - Ave. E
Geismar, LA 70734
Tel (504) 343-1524
Fax (504) 673-3485

If you have any questions, or require additional information regarding this matter, please contact me at (225) 673-5113 or Cindy Thompson at (225) 293-7270.

Sincerely,

James A. Price

James A. Price
Praxair, Inc

cc: Cindy Thompson
PPM Consultants, Inc.
11744 Haymarket Avenue
Baton Rouge, LA 70816

Praxair, Inc.
P.O. Box 230
Hwy. 73 - Ave. E
Geismar, LA 70734
Tel (504) 343-1524
Fax (504) 673-3485

EXHIBIT 1

EIQ AND EMISSION CALCULATIONS

An Atmosphere of Excellence

Department of Environmental Quality
Air Quality Division
P.O. Box 4313
Baton Rouge, LA 70821-4313
(225) 219-3181

LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE
Emission Inventory Questionnaire (EIQ)
for Air Pollutants

Company Name	Plant location and name (if any)	Date of submittal
Praxair, Inc.	Geismar Plant Geismar, Louisiana	October 2007

Source ID number	Descriptive name of the equipment served by this stack or vent	Approximate location of stack or vent (see instructions on how to determine location of area sources)
4-07	Miscellaneous Steam Vents	UTM zone no. [X] 15 Horizontal coordinate 691230 m E Vertical coordinate 3442346 m N

Stack and Discharge Physical Characteristics [Change __yes x no]	Height of Stack above grade (ft)	Diameter (ft) or stack discharge area (ft^2)	Stack gas exit temperature (°F)	Stack gas flow at process conditions, not at standard (ft^3/min)	Stack gas exit velocity (ft/sec)	Date of construction/modification	Operating rate (Max) or tank capacity
	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Fuel

	Type of fuel used and heat input (see Instructions)	
	Type of fuel	Heat Input (MM BTU/hr)
a	N/A	N/A
b		
c		

Operating Characteristics

Percent of annual throughput of pollutants through this emission point				Normal operating time of this point			Normal Operating Rate
Dec-Feb	Mar-May	Jun-Aug.	Sep-Nov	hrs/day	days/wk	wk/yr	
25	25	25	25	24	7	52	N/A

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency	Emission Rate			Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
			Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)			
Ammonia	000	0.0000	0.43	0.43	1.86	4	A	N/A ppm by vol

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Department of Environmental Quality
Air Quality Division
P.O. Box 4313
Baton Rouge, LA 70821-4313
(225) 219-3181

LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE
Emission Inventory Questionnaire (EIQ)
for Air Pollutants

Company Name	Plant location and name (if any)	Date of submittal
Praxair, Inc.	Geismar Plant Geismar, Louisiana	October 2007

Source ID number	Descriptive name of the equipment served by this stack or vent	Approximate location of stack or vent (see instructions on how to determine location of area sources)
REFORMERS	Emission Cap for Reformers 1, 2, 3 and 6	UTM zone no. [X] 15 Horizontal coordinate 691230 m E Vertical coordinate 3442346 m N

Stack and Discharge Physical Characteristics [Change __yes x no]	Height of Stack above grade (ft)	Diameter (ft) or stack discharge area (ft^2)	Stack gas exit temperature (°F)	Stack gas flow at process conditions, not at standard (ft^3/min)	Stack gas exit velocity (ft/sec)	Date of construction/modification	Operating rate (Max) or tank capacity
	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Fuel

Type of fuel used and heat input (see Instructions)		
	Type of fuel	Heat Input (MM BTU/hr)
a	N/A	N/A
b		
c		

Operating Characteristics

Percent of annual throughput of pollutants through this emission point				Normal operating time of this point			Normal Operating Rate
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	hrs/day	days/wk	wk/yr	
25	25	25	25	24	7	52	8,760 hrs/yr

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency	Emission Rate Average (lbs/hr)	Emission Rate Maximum (lbs/hr)	Emission Rate Annual (tons/yr)	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack	
Particulate matter	000	0.0000	6.41	*	28.06	3	C	N/A	gr / std ft^3
Sulfur dioxide	000	0.0000	0.51	*	2.22	3	C	N/A	ppm by vol
Nitrogen oxides	000	0.0000	70.88	*	310.45	5	C	N/A	ppm by vol
Carbon monoxide	000	0.0000	31.19	*	136.62	5	C	N/A	ppm by vol
Total VOC	000	0.0000	6.74	*	29.54	5	C	N/A	ppm by vol
Ammonia	000	0.0000	1.73	*	7.56	2	C	N/A	ppm by vol

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Praxair Geismar
Miscellaneous Steam Vents
Total Emissions from Plants 1,2,3, and 6
Emission Point 4-07

Total Emissions from Miscellaneous Steam Vents

	Emission Rates		
Pollutant	Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	0.426	0.426	1.864

Praxair Geismar
Miscellaneous Steam Vents
Plant 1 & 3 East Side
Emission Point 4-07

1. DA Vent

9.57E-08 lb NH_3/scf natural gas
262,131 scf/hr natural gas
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/scf NG)	Natural Gas Usage (scf/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	9.57E-08	262,131	0.025	0.025	0.110

2. Blowdown Vent

9.54E-09 lb NH_3/scf natural gas
262,131 scf/hr natural gas
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/scf NG)	Natural Gas Usage (scf/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	9.54E-09	262,131	0.003	0.003	0.011

3. Low Pressure Vents

2.50E-06 lb NH_3/lb Steam (STM)
10,000 lb STM/hr
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/lb STM)	Usage (lb STM/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	2.50E-06	10,000	0.025	0.025	0.110

Praxair Geismar
Miscellaneous Steam Vents
Plant 1 & 3 East Side
Emission Point 4-07

4. High Pressure Vents

2.50E-06 lb NH_3/lb STM
10,000 lb STM/hr
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/lb STM)	Usage (lb STM/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	2.50E-06	10,000	0.025	0.025	0.110

5. Fugitives (20% of Low Pressure Vents and 20% of High Pressure Vents)

Emissions

Pollutant	20% of Low Pressure Vents (lb/hr)	20% of High Pressure Vents (lb/hr)	Total from High and Low Pressure Vents (Average lb/hr)	Emission Rates	
				Maximum (lb/hr)	Annual (tpy)
Ammonia	0.005	0.005	0.010	0.010	0.044

Total Emissions from Plant 1 & 3

Pollutant	Emission Rates		
	Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	0.088	0.088	0.384

Praxair Geismar
Miscellaneous Steam Vents
Plant 2 East Side
Emission Point 4-07

1. DA Vent

9.57E-08 lb NH_3/scf natural gas
179,683 scf/hr natural gas
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/scf NG)	Natural Gas Usage (scf/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	9.57E-08	179,683	0.017	0.017	0.075

2. Blowdown Vent

9.54E-09 lb NH_3/scf natural gas
179,683 scf/hr natural gas
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/scf NG)	Natural Gas Usage (scf/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	9.54E-09	179,683	0.002	0.002	0.008

3. Steam Vent

2.83E-06 lb NH_3/lb STM
10,000 lb STM/hr
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/lb STM)	Usage (lb STM/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	2.83E-06	10,000	0.028	0.028	0.124

Praxair Geismar
Miscellaneous Steam Vents
Plant 2 East Side
Emission Point 4-07

4. Fugitives (20% of STM Vent)

Emissions

Pollutant	20% STM Vent (lb/hr)	Emission Rates	
		Maximum (lb/hr)	Annual (tpy)
Ammonia	0.006	0.006	0.025

Total Emissions from Plant 2

Pollutant	Emission Rates		
	Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	0.053	0.053	0.232

Praxair Geismar
Miscellaneous Steam Vents
Plant 6 West Side
Emission Point 4-07

1. DA Vent

1.67E-07 lb NH_3/scf natural gas
1,125,200 scf/hr natural gas
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/scf NG)	Natural Gas Usage (scf/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	1.67E-07	1,125,200	0.188	0.188	0.823

2. Blowdown Vent

1.18E-08 lb NH_3/scf natural gas
1,125,200 scf/hr natural gas
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/scf NG)	Natural Gas Usage (scf/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	1.18E-08	1,125,200	0.013	0.013	0.058

3. High Pressure Steam Vent

3.80E-06 lb NH_3/lb STM
15,000 lb STM/hr
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/lb STM)	Usage (lb STM/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	3.80E-06	15,000	0.057	0.057	0.250

Praxair Geismar
Miscellaneous Steam Vents
Plant 6 West Side
Emission Point 4-07

4. Low Pressure Vent

3.80E-06 lb NH_3/lb STM
4,000 lb STM/hr
8760 hours per year
2000 lbs per ton

Emissions

Pollutant	Operating Rate (lb NH_3/lb STM)	Usage (lb STM/hr)	Emission Rates		
			Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	3.80E-06	4,000	0.015	0.015	0.067

5. Fugitives (20% of Low Pressure Vents and 20% of High Pressure Vent)

Emissions

Pollutant	20% of High Pressure Vent (lb/hr)	Emission Rates	
		Maximum (lb/hr)	Annual (tpy)
Ammonia	0.011	0.011	0.050

Total Emissions from Plant 6

Pollutant	Emission Rates		
	Average (lb/hr)	Maximum (lb/hr)	Annual (tpy)
Ammonia	0.285	0.285	1.248

Praxair, Inc.
Geismar Plant
Source ID No. 9-95
Reformer Flue Gas Stack (Unit 6) Emission Calculation

Reformer Flue Gas Stack – Unit 6			565	MMBtu/hr
Pollutant	Emission Factors (lbs/MMBtu)	Average Emission Rate (lb/hr)	Maximum Emission Rate (lb/hr)(1)	Annual Emission Rate (tons/yr)(2)
Sulfur Dioxide (3)	0.0006	0.34	0.37	1.48
PM10 (3)	0.0076	4.29	4.72	18.81
Nitrogen Oxides (4)	0.01925	10.87	90.00 (5)	47.63
NM/NE HC (5)	0.008	4.52	4.97	19.80
Carbon Monoxide (6)	0.037	20.91	300.00 (5)	91.56
Ammonia (7)		1.73	2.50 (5)	7.56

(1) Maximum emission rate based on average emission rate plus 10%.
(2) Based on 8,760 operating hours per year.
(3) Emission factor is based on AP-42, Section 1.4, for Natural Gas Combustion, (7/98) and converted from lb/10^6 scf to lb/MMBtu by dividing by 1,020.
(4) Emission factor based on stack test data plus 5%.
(5) Maximum hourly rate for Nox, CO and Ammonia are based on monitoring data and operational knowledge.
(6) Emission factors used are as calculated by Combustion Components Associates (CCA), (7/01).
(7) Based on vendor guarantee and monitoring data.

Praxair, Inc.
Geismar Plant
Source ID No. Reformers
Emission Cap for Reformers 1, 2, 3, and 6

Pollutant	Average Emission Rate (lb/hr)	Annual Emission Rate (tons/yr)
Sulfur Dioxide	0.51	2.22
PM10	6.41	28.06
Nitrogen Oxides	70.88	310.45
NM/NE HC	6.74	29.54
Carbon Monoxide	31.19	136.62
Ammonia	1.73	7.56

Praxair, Inc.
P.O. Box 230
Hwy. 73 - Ave. E
Geismar, LA 70734
Tel (504) 343-1524
Fax (504) 673-3485

EXHIBIT 2

REGULATORY TABLES

TABLE 2.1 - REGULATORY MATRIX

LOUISIANA FEDERAL AIR QUALITY REGULATIONS
PRAXAIR, INC. – PRAXAIR GEISMAR PLANT
GEISMAR, ASCENSION, LOUISIANA

Emission Point/ Identifier	LAC 33:III Chapter									NSPS 40 CFR 60				NESHAP 40 CFR 61				HON 40 CFR 63					40 CFR			
	9	11	13	15	21	22	51	56	59	A	Da	Kb	VV	A	F	V	FF	F	G	H	Q	KK	52	64	68	72
Facility	X				X			X	X																X	
1-71, 1-81, 2-88, 9-95		X	X	O		X																				
2-71, 3-71, 2-81, 1-89, 2-89, 1-91, 10-95, 2-96		X		O		O																				
1-93, 2-93, 6-93, 3-96												O														
3-93					O																					
4-93																										
5-93					X								X													
1-94		X		O	X	O																				
7-93					X							X														
8-93					X								X													
9-93																										
11-93																										
2-94		X		O	X	O																				
4-96, 5-96, 6-96					X							O														
T5-3, T5-4																										
1-01																										
1-03, 2-03																										

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TABLE 2.1 - REGULATORY MATRIX

LOUISIANA FEDERAL AIR QUALITY REGULATIONS
PRAXAIR, INC. – PRAXAIR GEISMAR PLANT
GEISMAR, ASCENSION, LOUISIANA

Emission Point/ Identifier	LAC 33:III Chapter									NSPS 40 CFR 60				NESHAP 40 CFR 61				HON 40 CFR 63					40 CFR			
	9	11	13	15	21	22	51	56	59	A	Da	Kb	VV	A	F	V	FF	F	G	H	Q	KK	52	64	68	72
3-01, 4-01, 5-01, 6-01, 7-01, 1-07, 2-07, 3-07																										
4-07																										

KEY TO MATRIX

X - 1) The regulations have applicable requirements which apply to this particular emission source.
- 2) The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

O The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criteria, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes, the source will have to comply at a future date.

Blank - The regulations clearly do not apply to this type of emission

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TABLE 2.2
STATE AND FEDERAL REGULATORY REQUIREMENTS
PRAXAIR, INC. – PRAXAIR GEISMAR PLANT
GEISMAR, ASCENSION, LOUISIANA

EMISSION POINT NO / IDENTIFIER	APPLICABLE REQUIREMENT	COMPLIANCE METHOD/ PROVISION	NOTES
Facility Wide	General Requirements on Control of Emissions and Emission Standards *(LAC 33:III.919)*	Submit Annual Emission Inventory by March 31st every year. Prompt reports of emergency occurrences.	
	Notification of Unauthorized Discharge *(LAC 33:III.927)*	The unauthorized discharge of any air pollutant into the atmosphere shall be reported in accordance to the provisions of LAC 33:I.Chapter 39.	
	Housekeeping *(LAC 33:III.2113)*	Develop and maintain a good housekeeping plan to reduce organic compound emissions.	
	Prevention of Air Pollution Emergency Episode *(LAC 33:III.5609 and 5611)* -STATE ONLY-	Have standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warming, or Air Pollution Emergency.	
	Chemical Accident Prevention and Minimization of Consequences *(LAC 33:III.Chapter 59)* -STATE ONLY-	Comply with 5901, 5907, 5911, and 5913 according to the dates specified in Chapter 59.	
	Chemical Accident Prevention Provisions *(40 CFR 68)*	Comply with all applicable regulations in Part 68.	
1-71, 1-81, 2-88, 9-95 Reformers	Control of Air Pollution from Smoke *(LAC 33.III.1101)*	Emission of smoke shall be controlled so that the shade is not darker than 20% opacity.	Source complies by burning natural gas.
	PM Emission Limits *(LAC 33:III.1311.C)*	The shade or appearance of the emission shall not be denser than 20% average opacity, except one six-minute period in any 60 consecutive minutes.	Source complies by burning natural gas.
	Emissions from Fuel Burning Equipment *(LAC 33:III.1313)*	Emission of particulate matter to the atmosphere from any fuel burning equipment shall not be in excess of 0.6 pound per MM BTU of heat.	Source complies by burning natural gas.
	Emission Limitations for SO_2 (LAC 33:III.1503)	Exempt per LAC 33:III.1503.C.	SO_2 < 250 TPY

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TABLE 2.2
STATE AND FEDERAL REGULATORY REQUIREMENTS
PRAXAIR, INC. – PRAXAIR GEISMAR PLANT
GEISMAR, ASCENSION, LOUISIANA

EMISSION POINT NO / IDENTIFIER	APPLICABLE REQUIREMENT	COMPLIANCE METHOD/ PROVISION	NOTES
1-71, 1-81, 2-88, 9-95 Reformers (continued)	Chapter 22. Control of Emissions of Nitrogen Oxides (NO_x) *(LAC 33:III Chapter 22)*	Praxair uses a Facility-Wide Averaging Plan to demonstrate compliance with applicable standards.	
2-71, 3-71, 2-81, 1-89, 2-89, 1-91, 10-95, 2-96 Flares	Permit Limits *(LAC 33:III.501.C.6)*	Maintain heating value of combusting gas 300 BTU/scf.	
	Smoke from Flaring Shall Not Exceed 20 % Opacity- *(LAC 33:III.1105)*	Smoke shall not exceed 20% opacity more than 6 hours in any 10 consecutive days.	
	Emission Standards for Sulfur Dioxide *(LAC 33:III.1503)*	Exempt per LAC 33:III.1503.C.	SO_2 < 250 TPY
	Chapter 22. Control of Emissions of Nitrogen Oxides	Flares are exempt from this regulation per LAC 33:III.2122.C.7.	Not Applicable.
1-93, 2-93, 6-93, 3-96 Formaldehyde Tanks	Storage of VOC *(LAC 33:III.2103)*	Does not apply. Vapor pressure < 0.75 psia.	
	NSPS Subpart Kb for VOC Storage Tanks *(40 CFR 60.110b)*	Exempt from controls per 40 CFR 60.110b(a). Record keeping per 40 CFR 60.110b(a) and (b).	Vented to flares.
3-93 Catalytic Converter	Waste Gas Disposal *(LAC 33:III.2115)*	Exempt per LAC 33:III.2115.H.1.c. VOC emissions < 100 lbs/24hrs.	
4-93 Loading Operations	VOC Loading *(LAC 33:III.2107)*	Does not apply. Vapor pressure < 1.5 psia.	
5-93 Fugitives	Pumps and Compressors *(LAC 33:III.2111)*	Shall be equipped with mechanical seals or equivalent for those in VOC service.	
	Fugitive emission control for ozone nonattainment area *(LAC 33:II.2122)*	Exempt per LAC 33:III.2122.A.6.b. Comply with NSPS Subpart VV.	
	NSPS Subpart VV – Fugitive VOC leaks from SOCMI plant *(40 CFR 60.480)*	Shall conduct an LDAR program that meets requirements of the subpart.	
1-94 Tank Farm Flare	Smoke from Flaring Shall Not Exceed 20 % Opacity- *(LAC 33:III.1105)*	Smoke shall not exceed 20% opacity more than 6 hours in any 10 consecutive days. Weekly visual emission check.	
	Emission Standards for Sulfur Dioxide *(LAC 33:III.1503)*	Exempt per LAC 33:III.1503.C.	SO_2 < 250 TPY

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TABLE 2.2
STATE AND FEDERAL REGULATORY REQUIREMENTS
PRAXAIR, INC. – PRAXAIR GEISMAR PLANT
GEISMAR, ASCENSION, LOUISIANA

EMISSION POINT NO / IDENTIFIER	APPLICABLE REQUIREMENT	COMPLIANCE METHOD/ PROVISION	NOTES
1-94 Tank Farm Flare (continued)	Waste Gas Disposal *(LAC 33:III.2115)*	Shall maintain destruction efficiency 98% by maintaining heating value of combusting gas 300 BTUscf.	
	Chapter 22. Control of Emissions of Nitrogen Oxides	Flares are exempt from this regulation per LAC 33:III.2122.C.7.	Not Applicable.
7-93 Methanol Storage Tank	Storage of VOC *(LAC 33:III.2103)*	Shall be equipped with a double seal internal floating roof and submerged fill pipe.	Volume = 300,000 gal
	NSPS Subpart Kb for VOC Storage Tanks *(40 CFR 60.110b)*	Shall be equipped with a double seal internal floating roof and submerged fill pipe.	
8-93 Fugitives	Pumps and Compressors *(LAC 33:III.2111)*	Shall be equipped with mechanical seals or equivalent for those in VOC service.	
	Fugitive emission control for ozone nonattainment area *(LAC 33:II.2122)*	Exempt per LAC 33:III.2122.A.6.b. Comply with NSPS Subpart VV.	
	NSPS Subpart VV – Fugitive VOC leaks from SOCMI plant *(40 CFR 60.480)*	Shall conduct an LDAR program that meets requirements of the subpart.	
9-93 Methanol Slop Tank	Storage of VOC *(LAC 33:III.2103)*	Does not apply. Vapor pressure < 1.5 psia	
	NSPS Subpart Kb for VOC Storage Tanks *(40 CFR 60.110b)*	Exempt Volume < 10,500 gallons	
11-93 Loading Operations	VOC Loading *(LAC 33:III.2107)*	Does not apply. Vapor pressure < 1.5 psia.	
2-94 Methanol Flare	Smoke from Flaring Shall Not Exceed 20 % Opacity *(LAC 33:III.1105)*	Smoke shall not exceed 20% opacity more than 6 hours in any 10 consecutive days. Weekly visual emission check.	
	Emission Standards for Sulfur Dioxide *(LAC 33:III.1503)*	Exempt per LAC 33:III.1503.C.	SO_2 < 250 TPY
	Waste Gas Disposal *(LAC 33:III.2115)*	Shall maintain destruction efficiency 98% by maintaining heating value of combusting gas 300 BTU/scf.	

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TABLE 2.2
STATE AND FEDERAL REGULATORY REQUIREMENTS
PRAXAIR, INC. – PRAXAIR GEISMAR PLANT
GEISMAR, ASCENSION, LOUISIANA

EMISSION POINT NO / IDENTIFIER	APPLICABLE REQUIREMENT	COMPLIANCE METHOD/ PROVISION	NOTES
2-94 Methanol Flare (continued)	Chapter 22. Control of Emissions of Nitrogen Oxides	Flares are exempt from this regulation per LAC 33:III.2122.C.7.	Not Applicable.
4-96 Methanol Storage Tank	Storage of VOC *(LAC 33:III.2103)*	Shall be equipped with a submerged fill pipe.	Volume = 13,540 gals
	NSPS Subpart Kb for VOC Storage Tanks *(40 CFR 60.110b)*	Exempt from controls per 40 CFR 60.110b(a).	Vapor pressure < 4 psia
5-96, 6-96 Methanol Storage Tanks	Storage of VOC *(LAC 33:III.2103)*	Shall be pressurized, blanketed with nitrogen, and vented to the flare.	Volume = 12,000 gals
	NSPS Subpart Kb for VOC Storage Tanks *(40 CFR 60.110b)*	Exempt from controls per 40 CFR 60.110b(a).	
T5-3, T5-4 Wastewater Tanks	Storage of VOC *(LAC 33:III.2103)*	Does not apply. Vapor pressure < 1.5 psia.	Volume = 15,000 gals
1-01 MEA Storage Tank	Storage of VOC *(LAC 33:III.2103)*	Does not apply. Vapor pressure < 1.5 psia.	
	NSPS Subpart Kb for VOC Storage Tanks *(40 CFR 60.110b)*	Does not apply. Volume < 10,500 gal.	
3-01, 4-01, 5-01, 6-01, 7-01 Cooling Towers	NESHAP for Industrial Processing Cooling Towers *(40 CFR 63.400)*	Does not apply. No chromium based water treatment chemicals used after 9/08/94.	

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TABLE 2.3
COMPLIANCE MONITORING DEVICES, ACTIVITIES, OR METHODS
PRAXAIR, INC. – PRAXAIR GEISMAR PLANT
GEISMAR, ASCENSION, LOUISIANA

EMISSION POINT NO / IDENTIFIER	APPLICABLE COMPLIANCE REQUIREMENT	MONITORING, REPORTING & RECORDKEEPING (MRR) METHOD/PROVISION	NOTES
Facility Wide	Emission Inventory (EI) *(LAC 33:III.919)* -STATE ONLY-	Submit EI by March 31st for the period of January 1st to December 31st of the previous year.	Reporting and Recordkeeping
	NESHAP Subpart FF for benzene waste operations *(40 CFR 61.354-61.357)*	Total annual benzene report. Initial.	Initial Reporting and Recordkeeping
1-71, 1-81, 2-88, 9-95	Permit Limits *(LAC 33:III.501.C.6)*	Monitor reformers firing rates and calculate emissions per Permit No.: 0180-00031-V1 Specific Condition 1.	MRR
	Control of Emissions of Nitrogen Oxides (NO_x) *(LAC 33:III.Chapter 22)*	Praxair will comply with the monitoring requirements in LAC 33:III.2201.H.2.a.i-iii (for the Reformer Flue Gas Stacks in Units 1 (1-71), 2 (1-81), and 3 (2-88) and LAC 33:III.2201.H.b.i-iv (for Reformer Flue Gas Stack 6 (9-95). Praxair will comply with the recordkeeping requirements in LAC 33:III.2201.I.1. and 2.a-d, 3a, and 4a & c and 5.	
9-95	Paragraph VII on page 13-14 of April 6, 2006 Compliance Order as implemented.	Praxair has installed, certified, and reported on a NO_x CEMS upstream of the SCR Catalyst Bed on Reformer 6. The data from the upstream and downstream NOx CEMS and the amount of ammonia injected will be used to calculate ammonia emissions on a monthly basis.	
1-94, 2-94	*(LAC 33:III.1101)*	Weekly visual emission check.	MRR
1-93, 2-93, 6-93, 3-96, 4-96, 5-96, 6-96	NSPS Subpart Kb for VOC Storage Tanks *(40 CFR 60.116b(a) and (b))*	Tank dimensions and capacities. Retain for the life of the tanks.	Recordkeeping
4-93, 11-93	VOC Loading (LAC 33:III.2107)	Record throughput and vapor pressure to verify compliance/exemption.	Recordkeeping

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TABLE 2.3
COMPLIANCE MONITORING DEVICES, ACTIVITIES, OR METHODS
PRAXAIR, INC. – PRAXAIR GEISMAR PLANT
GEISMAR, ASCENSION, LOUISIANA

5-93, 8-93	NSPS Subpart VV – Equipment Leaks of VOC in SOCMI *(40 CFR 60.480)*	Periodic monitoring, recordkeeping, and reporting hydrocarbon leaks per the LDAR program.	MRR
7-93	NSPS Subpart Kb for VOC Storage Tanks *(40 CFR 60.115b and 116b)*	Recordkeeping and reporting per 40 CFR 60.115b(a), 60.116b(a), (b), (c).	Reporting and Recordkeeping

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TABLE 2.4
COMPLIANCE TESTING REQUIREMENTS
PRAXAIR, INC. – PRAXAIR GEISMAR PLANT
GEISMAR, ASCENSION, LOUISIANA

EMISSION POINT	APPLICABLE COMPLIANCE TEST METHOD	CRITERIA BEING TESTED	NOTES
5-93, 8-93	Method 21	Hydrocarbon leaks	
5-93, 8-93, 1-71, 1-81, 2-88, 3-94, 9-95	Method 3A Method 5 Method 6 Method 7E Method 10 Method 25A ASTM D6348-03	O_2 PM SO_2 NO_x CO VOC NH_3	All reformers have demonstrated compliance with LAC 33:Chapter 22.

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TABLE 2.5
EQUIPMENT LIST
PRAXAIR, INC. – PRAXAIR GEISMAR PLANT
GEISMAR, ASCENSION, LOUISIANA

EMISSION POINT NO.	DESCRIPTION	SERVICES	NOTES
2-71	Unit 1 MEA Flare	Synthesis gas from Reformer Units 1 and 3	
3-71	Unit 1 Main Flare	Synthesis gas from Reformer Units 1 and 3	
2-81	Unit 2 Main Flare	Synthesis gas from Unit No. 2	
1-89	Unit 1 Cold Box West Flare	Various vent gas from Unit 1 Cold Box Flare	
2-89	Unit 1 Cold Box East Flare	Various vent gas from Unit 1 Cold Box Flare	
1-91	CO Flare	CO from storage area and CO tube trailers	
10-95	Unit 6 Main Flare	Synthesis gas from Unit 6	
2-96	Unit 6 Cold Box Flare	Various vent gases from Unit 6 Cold Box Area	
3-93	Catalytic Converter Vent	Formaldehyde Plant Absorber Vent	
1-94	Tank Farm Flare	Off gases from methanol/formaldehyde truck loading rack and methanol/formaldehyde tank farm	
2-94	Methanol Flare	Off gases from Methanol Plant and synthesis gas	

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