

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 1743

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
ACR-TOU51	Thermal Oxidizer Unit	VOC	7.82	33.3
		ACRN	0.28	0.70
		HCN	0.20	0.45
		CO	59.4	26.8
		NO <sub>x</sub>	134.0	369.7
		SO <sub>2</sub>	0.06	0.26
		PM	0.77	3.35
ACR-VC51	Vapor Combustor (5)	VOC	82.8	9.96
		ACRN	5.64	0.40
		HCN	4.00	0.26
		CO	152.0	19.3
		NO <sub>x</sub>	846.2	59.1
		SO <sub>2</sub>	0.10	0.01
ACR-VNT51	Reactors Start-up	NO <sub>x</sub>	44.4	0.89
		Ammonia	0.60	0.01
ACR-INC60	Incinerator Stack	VOC	9.59	4.42
		ACRN	0.01	0.06
		HCN	7.84	1.22
		PM	1.63	1.03
		CO	25.0	12.2
		SO <sub>x</sub>	10.1	6.32
		NO <sub>x</sub>	372.4	126.9
		Ammonia	0.11	0.48

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Emission Point No. (1)	Source Name (2) TPY**	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	
ACR-HTR56	Start-Up Heater	VOC	0.40	0.03
		PM <sub>10</sub>	0.56	0.05
		CO	6.15	0.52
		SO <sub>x</sub>	0.04	0.01
		NO <sub>x</sub>	7.32	0.62
ACR-FLR57	ISBL Flare	VOC	17.5	20.9
		HCN	11.13	17.2
		ACRN	4.97	2.47
		SO <sub>x</sub>	10.0	17.5
		NO <sub>x</sub>	29.6	38.4
		CO	3.75	5.31
ACR-FLR58	OSBL Flare	VOC	1.15	5.06
		HCN	1.00	4.38
		SO <sub>x</sub>	0.01	0.01
		NO <sub>x</sub>	2.09	9.17
		CO	0.88	3.85
ACR-CLT229	Cooling Tower	VOC	1.76	7.71
ACR-ABS59	Crude ACE Tank Scrubber	VOC	0.01	0.01
		ACRN	0.001	0.001
		HCN	0.01	0.01
ACR-ABS61	Finished Product Scrubber	ACRN	4.01	2.63
ACR-ABS156	ACRN Analysis Tanks Scrubber	VOC	2.25	0.79
		ACRN	0.86	0.74
ACR-ABS159	Crude/Off-Test Tank Scrubber	ACRN	0.90	0.16
		HCN	0.86	0.15
ACR-ABS218	Acetonitrile Product Scrubber	VOC	0.05	0.11
ACR-ABS219	HQ and MEHQ Tank Scrubber	VOC	1.49	0.04

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			lb/hr	
	TPY**			
ACR-TFX206A	H <sub>2</sub> SO <sub>4</sub> Tank	ACRN 1.48 H <sub>2</sub> SO <sub>4</sub>	0.03 0.01	0.01
ACR-TFX206B	H <sub>2</sub> SO <sub>4</sub> Tank	H <sub>2</sub> SO <sub>4</sub>	0.01	0.01
ACR-TFX207	H <sub>2</sub> SO <sub>4</sub> Day Tank	H <sub>2</sub> SO <sub>4</sub>	<0.01	<0.01
ACR-TFX221	Glycolic Acid Tank	VOC	0.01	0.01
ACR-TFX223	ISBL Brine Tank	VOC	0.05	0.01
ACR-TFX232	RCRA Filtrate Tank	VOC ACRN 0.03	0.04 0.02	0.03
ACR-TFX280	West HCN Brine Tank	VOC	0.01	0.01
ACR-TFX281	East HCN Brine Tank	VOC	0.01	0.01
ACR-ABS311	Dock Scrubber	ACRN	6.65	1.17
ACR-F1RRLU	No. 1 Tank Car Spot Fugitive Area (4)	0.14 ACRN 0.02	VOC 0.06	0.04
ACR-F2RRLU	No. 2 Tank Car Spot Fugitive Area (4)	0.03 ACRN	0.01	0.01
ACR-F3RRLU	No. 3 Tank Car Spot Fugitive Area (4)	0.24 ACRN 0.03	VOC 0.14	0.05
ACR-FC3TF	Propylene Tank Farm Fugitive Area (4)	VOC	0.71	3.11
ACR-FDK3B	Propylene Barge Spot	VOC	0.06	0.26

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Emission Point No. (1)	Source Name (2) TPY**	Air Contaminant Name (3)	Emission Rates * lb/hr	
	Fugitive Area (4)			
ACR-FDKPBL	Dock Process Battery Limit Limit Fugitive Area (4)	ACRN	0.03	0.11
ACR-FDKSCR	Dock Scrubber Fugitive Area (4)	ACRN	0.03	0.13
ACR-FFLARE	ISBL Flare Fugitive Area (4)	ACRN	0.01	0.01
ACR-FPUR	Purification Fugitive Area (4)	VOC	0.76	3.32
		ACRN 0.51	2.25	
		HCN 0.14	0.62	
ACR-FPURTK	Purification Tank Fugitive Area (4)	VOC	0.18	0.77
		ACRN 0.01	0.01	
		HCN 0.01	0.01	
ACR-FRCVY	Recovery Fugitive Area (4)	VOC	0.15	0.69
		ACRN 0.06	0.25	
		HCN 0.03	0.13	
ACR-FREFRG	Refrigeration Fugitive Area (4)	VOC	0.01	0.02
ACR-FRRHCN	HCN Tank Car Fugitive Area (4)	HCN	0.01	0.06
ACR-FRX	Reactor Fugitive Area (4)	VOC	0.24	0.99
		ACRN 0.05	0.23	
		HCN 0.01	0.05	
		Ammonia	0.01	0.02
ACR-FSITE	Site Fugitive Area (4)	VOC	0.10	0.44
		ACRN 0.02	0.06	
ACR-FUG27	HCN Storage Tank (4)	VOC	0.08	0.34
		HCN 0.07	0.32	

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Emission Point No. (1)	Source Name (2) TPY**	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	
ACR-FUG60	Incinerator Fugitive Area (4)	VOC	0.06	0.26
		ACRN	0.01	0.01
		HCN	0.05	0.20
ACR-FUG321	Crude and Off-Test Fugitive Area (4)	ACRN	0.06	0.26
		HCN	0.03	0.14
ACR-FUG322	Product Tank Fugitive Area (4)	ACRN	0.07	0.30
ACR-FUG323	Analysis Tank Fugitive Area (4)	VOC	0.11	0.48
ACR-TFX375	One Million Gallon Wastewater Tank	VOC	0.01	0.01
		ACRN	0.03	
ACR-TFX225	Four Million Gallon Wastewater Tank			
		0.01	VOC	0.01
ACR-WWC376	RCRA WW West Settler	VOC	0.01	0.01
		ACRN	0.003	0.0003
ACR-WWC377	RCRA WW East Settler	VOC	0.01	0.01
		ACRN	0.003	0.0003
ACR-BIN380	R <sub>x</sub> Catalyst Makeup	PM	0.01	0.01
ACR-VNT332	Propylene Analyzer Vent	VOC	0.01	0.01

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.
- (3) NO<sub>x</sub> - total oxides of nitrogen  
CO - carbon monoxide  
HCN - hydrogen cyanide  
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
ACRN - acrylonitrile  
H<sub>2</sub>SO<sub>4</sub> - sulfuric acid  
PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub>.

PM<sub>10</sub> - particulate matter (PM) equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.

SO<sub>x</sub> - total oxides of sulfur

SO<sub>2</sub> - sulfur dioxide

- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

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#### EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- (5) Emission limits effective with initial operation of combustor as required by Special Condition No. 8.

- \* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year 8,760

- \*\* Compliance with annual emission limits is based on a rolling 12-month period.

Dated \_\_\_\_\_