

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 28351

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, sources, and related activities. 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	
			lbs/hour	TPY (4)
PP-B102	PP Boiler B-102	VOC	0.26	0.92
		NO <sub>x</sub>	4.74	16.74
		CO	3.98	14.06
		PM	0.36	1.27
		PM <sub>10</sub>	0.36	1.27
		PM <sub>2.5</sub>	0.36	1.27
		SO <sub>2</sub>	0.14	0.48
PP-FLARE	Polypropylene Flare (9)	VOC (11)	187.31	51.67
		Propylene	187.31	30.70
		Ethylene	16.82	11.29
		NO <sub>x</sub>	24.22	9.35
		CO	124.78	48.18
		SO <sub>2</sub>	0.43	0.27
PP-L3LOAD, PP-ZSK3DRY, PP-ZSK3FV, PP-ZSK3STG	ZSK3 Finishing (9)	VOC (11)	27.50	35.25
		Propylene	20.90	20.09
		Ethylene	1.80	5.30
PP-FFCAP	VOC Cap for Polypropylene Flare and ZSK3 Finishing (9)	VOC (11)	192.81	74.17
		Propylene	192.81	35.84
PP-L3LOAD	Loading Vent	PM	0.19	0.85
		PM <sub>10</sub>	0.19	0.85
		PM <sub>2.5</sub>	0.19	0.85
ZSK3FV	ZSK3 Feed Vent	PM	0.01	0.01
		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

PP-ZSK3STG	Storage Vent	PM	0.39	0.85
		PM <sub>10</sub>	0.39	0.85
		PM <sub>2.5</sub>	0.39	0.85
PP-CT101	Cooling Tower CT-101	VOC (11)	0.76	3.31
		Propylene	0.76	2.98
		Ethylene	0.76	0.12
		PM	1.47	3.95
		PM <sub>10</sub>	0.64	2.20
		PM <sub>2.5</sub>	<0.01	<0.01
PP-L3FV	Feed Vent	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
		PM <sub>2.5</sub>	<0.01	<0.01
VCONT	Temporary Flares and Vapor Combustors (7)	NO <sub>x</sub>	1.38	0.06
		CO	7.09	0.33
		SO <sub>2</sub>	0.02	<0.01
PP-L3FUG	Fugitive Emissions (5)	VOC (11)	18.68	81.83
		Propylene	15.68	68.65
		Ethylene	0.05	0.24
MSSCAP2	Sitewide MSS Activities (6)	VOC	51.81	1.30
PP-FLAREMSS	Polypropylene Flare MSS Emissions (10)	VOC	211.81	11.48
		NO <sub>x</sub>	67.75	(8)
		CO	349.03	(8)
		SO <sub>2</sub>	1.93	(8)

- (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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
NO<sub>x</sub> - total oxides of nitrogen  
SO<sub>2</sub> - sulfur dioxide  
PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented  
PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented  
PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter  
CO - carbon monoxide

Emission Sources - Maximum Allowable Emission Rates

- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) EPN MSSCAP2 is a sitewide cap for VOC emissions from MSS (maintenance, startup and shutdown) activities except PP-FLAREMSS emissions. It represents emissions from uncontrolled venting of miscellaneous process equipment after purging to the flare (as applicable) and represents VOC emissions after control for temporary control devices. Emissions from EPN MSSCAP2 are intended for miscellaneous MSS activities that may occur during normal operation or during shutdown.
- (7) VOC emissions from temporary flares and vapor combustors are included in EPN MSSCAP2. Emissions from EPN VCONT are intended for miscellaneous MSS activities that may occur during normal operation or during shutdown.
- (8) Annual NO<sub>x</sub>, CO and SO<sub>2</sub> limits from PP-FLAREMSS are included in the PP-FLARE annual limits.
- (9) VOC Compliance Cap for the combined Polypropylene Flare and ZSK3 Finishing area is indicated by EPN PP-FLARE. The individual emission limitations for these EPNs during normal operations are independently enforceable from the emission limitations in PP-FFCAP. The emissions limitations in PP-FFCAP make federally enforceable certain reductions in VOC and propylene emissions achieved by INEOS to fulfill the requirements of 30 TAC § 101.394(a)(1)(D)(iii). The emissions cap does not remove the obligation to assess federal permitting applicability per the major modification definition in 30 TAC § 116.12.
- (10) Emissions rates for PP-FLAREMSS represent emissions from planned MSS activities that are routed to the plant flare (EPN PP-FLARE). The hourly emission rates apply instead of the hourly emissions listed for normal operation for EPN PP-FLARE; they do not apply in addition to the limits for normal operation. The annual VOC emissions listed for PP-FLAREMSS are the maximum allowable from planned MSS activities; however, the total annual emissions from the flare (from both normal operation and planned MSS activities) must meet the limit listed for EPN PP-FLARE and the PP-FFCAP.
- (11) VOC emission rate includes propylene and ethylene emissions.

Date: May 14, 2019