## Emission Sources - Maximum Allowable Emission Rates

## Permit Number 133027 and N220

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 SO

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4)	TPY (5)
1	Steam Methane Reformer	NO <sub>x</sub>	43.44	33.10
		NO <sub>x</sub> (MSS)	106.18	-
		СО	6.58	25.56
		CO (MSS)	45.20	-
		VOC	2.24	8.27
		VOC (MSS)	2.96	-
		PM <sub>10</sub>	9.82	35.97
		PM <sub>2.5</sub>	9.82	35.97
		SO <sub>2</sub>	7.45	4.92
		SO <sub>2</sub> (MSS)	9.07	-
		NH <sub>3</sub>	4.89	17.84
		HAPS	0.83	3.03
2	Warm Flare	NO <sub>x</sub>	3.96	6.98
		NO <sub>x</sub> (MSS)	118.74	-
		СО	12.42	21.22
		CO (MSS)	148.33	-
		VOC	0.01	0.05
		VOC (MSS)	0.02	-
		SO <sub>2</sub>	<0.01	<0.01
3	Cold Flare	NO <sub>x</sub>	0.02	0.14
		NO <sub>x</sub> (MSS)	5.40	-
		СО	0.13	1.21
		CO (MSS)	46.28	-
		VOC	0.01	0.05
		SO <sub>2</sub>	<0.01	<0.01

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Cooling Tower	PM	1.96	8.59
	PM <sub>10</sub>	1.48	6.47
	PM <sub>2.5</sub>	0.60	2.65
MDEA Unit CO <sub>2</sub> Vent	СО	5.31	19.39
	VOC	0.36	1.32
	NH <sub>3</sub>	0.05	0.17
Routine Boiler Blowdown	VOC	1.26	2.75
	CH₃OH	1.10	2.41
	NH <sub>3</sub>	0.49	1.07
Process Waste Water	СО	10.16	0.37
SMR Plant Fugitives (6)	СО	0.50	2.20
	VOC	0.07	0.30
	NH <sub>3</sub>	0.24	1.06
CO Production Equipment Fugitives (6)	СО	2.13	9.33
	VOC	1.26	5.52
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	IDEA Unit CO <sub>2</sub> Vent  outine Boiler Blowdown  rocess Waste Water  MR Plant Fugitives (6)	$\begin{array}{c} PM_{10} \\ PM_{2.5} \\ \\ IDEA \ Unit \ CO_2 \ Vent \\ \\ \hline \\ OC \\ NH_3 \\ \\ OUtine \ Boiler \ Blowdown \\ \\ \hline \\ OC \\ CH_3OH \\ \\ NH_3 \\ \\ OC \\ \hline \\ NR \ Plant \ Fugitives \ (6) \\ \\ \hline \\ OC \\ NH_3 \\ \\ OC \\ \hline \\ OC \\ \\ OC \\ \hline \\ OC \\ \\$	PM <sub>10</sub> 1.48 PM <sub>2.5</sub> 0.60  IDEA Unit CO <sub>2</sub> Vent  CO 5.31 VOC 0.36 NH <sub>3</sub> 0.05  Outine Boiler Blowdown  VOC 1.26 CH <sub>3</sub> OH 1.10 NH <sub>3</sub> 0.49  rocess Waste Water  CO 10.16 MR Plant Fugitives (6)  CO 0.50 VOC 0.07 NH <sub>3</sub> 0.24 CO Production Equipment Fugitives (6)  CO 2.13

- (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

CH<sub>3</sub>OH - methanol

CO - carbon monoxide

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1 PM

- total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>25</sub>, as

represented

 $PM_{10}$ - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as

represented

- particulate matter equal to or less than 2.5 microns in diameter PM<sub>2.5</sub>

 $SO_2$ - sulfur dioxide

HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40

Code of Federal Regulations Part 63, Subpart C

- (4) Planned maintenance, startup, and shutdown (MSS) lbs/hour emissions for all pollutants are authorized even if not specifically identified as MSS. During any clock hour that includes one or more minutes of planned MSS, that pollutant's maximum hourly emission rate shall apply during that clock hour.
- (5) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period. Annual emission rates for each source include planned MSS emissions.
- (6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

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