

Emission Sources - Maximum Allowable Emission Rates

Permit Number 20686

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)
CTCOOLT04	Cooling Tower No. 3	VOC	0.08	0.35
		PM	0.02	0.09
		PM ₁₀	0.02	0.09
		PM _{2.5}	0.02	0.09
CTCOOLT05	Cooling Tower No. 6	VOC	0.08	0.35
		PM	0.02	0.09
		PM ₁₀	0.02	0.09
		PM _{2.5}	0.02	0.09
EEFIREWA02	P-175 Engine	VOC	1.20	0.06
		NO _x	1.20	0.06
		CO	1.00	0.05
		SO ₂	<0.01	<0.01
		PM	0.06	<0.01
		PM ₁₀	0.06	<0.01
		PM _{2.5}	0.06	<0.01

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EEFIREWB02	P-2 Engine	VOC	0.57	0.24
		NO _x	7.13	3.03
		CO	1.54	0.65
		SO ₂	0.47	0.20
		PM	0.51	0.22
		PM ₁₀	0.51	0.22
		PM _{2.5}	0.51	0.22
VEVCH601	H-601 Vapor Combustor (6)	VOC	0.13	-
		NO _x	1.14	-
		CO	2.28	-
		PM	0.06	-
		PM ₁₀	0.06	-
		PM _{2.5}	0.06	-
		SO ₂	0.06	-
		NH ₃	<0.01	-
VEVCH602	H-602 Vapor Combustor (6)	VOC	0.21	-
		NO _x	1.77	-
		CO	3.54	-
		PM	0.10	-
		PM ₁₀	0.10	-
		PM _{2.5}	0.10	-
		SO ₂	0.08	-
		NH ₃	<0.01	-

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VEVCH601 / VEVCH602	H-601 Vapor Combustor / H-602 Vapor Combustor	VOC	-	0.51
		NO _x	-	4.44
		CO	-	8.89
		PM	-	0.24
		PM ₁₀	-	0.24
		PM _{2.5}	-	0.24
		SO ₂	-	0.16
		NH ₃	-	<0.01
HE1DU02	Heater H-2	VOC	0.04	0.16
		NO _x	0.66	2.90
		CO	0.55	2.39
		SO ₂	0.03	0.12
		PM	0.05	0.22
		PM ₁₀	0.05	0.22
		PM _{2.5}	0.05	0.22
HE2BOIL02	Boiler No. 2	VOC	0.42	1.84
		NO _x	4.69	20.54
		CO	5.86	25.67
		SO ₂	0.33	1.45
		PM	0.59	2.58
		PM ₁₀	0.59	2.58
		PM _{2.5}	0.59	2.58
HEC21DU02	Heater H-21	VOC	0.08	0.34
		NO _x	1.41	6.25
		CO	1.18	5.15
		SO ₂	0.06	0.26

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		PM	0.11	0.47
		PM ₁₀	0.11	0.47
		PM _{2.5}	0.11	0.47
HEC25DU02	Heater H-25	VOC	0.07	0.29
		NO _x	1.24	5.45
		CO	1.02	4.49
		SO ₂	0.05	0.23
		PM	0.09	0.41
		PM ₁₀	0.09	0.41
		PM _{2.5}	0.09	0.41
HEC27DU02	Heater H-27	VOC	0.09	0.41
		NO _x	1.73	7.59
		CO	1.43	6.25
		SO ₂	0.07	0.32
		PM	0.13	0.57
		PM ₁₀	0.13	0.57
		PM _{2.5}	0.13	0.57
HEC33DU02	Heater H-8	VOC	0.08	0.34
		NO _x	1.41	6.25
		CO	1.18	5.15
		SO ₂	0.06	0.26
		PM	0.11	0.47
		PM ₁₀	0.11	0.47
		PM _{2.5}	0.11	0.47

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HEC35DU02	Heater H-347001	VOC	0.18	0.77
		NO _x	1.94	8.58
		CO	2.69	11.77
		SO ₂	0.14	0.60
		PM	0.24	1.07
		PM ₁₀	0.24	1.07
		PM _{2.5}	0.24	1.07
HECRUDU02	Heater H-7	VOC	0.08	0.37
		NO _x	1.56	6.84
		CO	1.29	5.63
		SO ₂	0.07	0.29
		PM	0.12	0.51
		PM ₁₀	0.12	0.51
		PM _{2.5}	0.12	0.51
HECUIIP02	Heater H-33501	VOC	0.03	0.14
		NO _x	0.30	1.32
		CO	0.50	2.17
		SO ₂	0.03	0.11
		PM	0.04	0.20
		PM ₁₀	0.04	0.20
		PM _{2.5}	0.04	0.20
HECUIIP03	Heater H-33502	VOC	0.01	0.04
		NO _x	0.08	0.34
		CO	0.13	0.55
		SO ₂	0.01	0.03
		PM	0.01	0.05

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		PM ₁₀	0.01	0.05
		PM _{2.5}	0.01	0.05
HEOXRU13	Heater H-349001	VOC	0.18	0.80
		NO _x	2.28	9.97
		CO	5.21	22.81
		SO ₂	0.27	1.16
		PM	0.47	2.06
		PM ₁₀	0.47	2.06
		PM _{2.5}	0.47	2.06
SEBAYOU02	Scrubber S-1002	VOC	0.04	<0.01
SEBAYOU03	Scrubber S-1000	VOC	0.02	<0.01
SEC21DU07	Scrubber S-141	VOC	0.02	0.07
SEC25DU03	Scrubber S-25	VOC	0.06	0.04
SECAS1607	Scrubber S-86	VOC	0.03	0.01
SECAS33B10	Scrubber S-78	VOC	0.07	0.09
SECAS33D08	Scrubber S-82	VOC (7)	0.08	0.02
	MSS Railcar Cleaning	VOC (8)(9)	-	0.02
SECAS33E07	Scrubber S-5	VOC	0.04	0.01
SECAS9702	Scrubber S-260	VOC (7)	0.05	<0.01
	MSS Railcar Cleaning	VOC (8)(9)	-	0.02
SECLUPS02	Scrubber S-18	VOC	0.02	0.03
SECRAS602	Scrubber S-83	VOC	0.01	0.01
SEIEXU03	Scrubber S-332-001	VOC	0.02	<0.01
SET27504	Scrubber S-275	VOC	0.05	0.03
VEBARGE03	Tank T-1014	VOC	0.05	0.01
VEFIREWA03	Tank T-1012	VOC	0.01	0.01

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VEFIREWB03	Tank T-1013	VOC	0.06	0.01
VEGAST02	Tank T-1010	VOC	0.14	0.01
VEGAST03	Tank T-1011	VOC	24.01	0.25
VECAS33E05	Tank T-54	KOH	0.01	0.01
VECSNPS02	Tank T-211017	NaOH	0.01	0.01
VECSNPS03	Tank T-211028	NaOH	0.01	0.01
VECSNPS04	Tank T-211029	NaOH	0.01	0.01
FUGAST01	Gas Storage Fugitives (5)	VOC	0.06	0.27
FUA01	T-250, T-22/23, and T-31A/B Area Fugitives (5)	VOC	0.03	0.14
FUA02	No. 1 Distillation Unit Fugitives (5)	VOC	0.05	0.24
FUA03	C35/C37 Distillation Unit Fugitives (5)	VOC	0.07	0.32
FUA04	T-17, T-19, and T-36 Area Fugitives (5)	VOC	0.06	0.26
FUA05	Crude Unit Fugitives (5)	VOC	0.06	0.25
FUA06	Crude Acid Storage Fugitives (5)	VOC	0.01	0.06
FUA08	Vacuum Flash Feed Storage Fugitives (5)	VOC	0.01	0.01
FUA09	C-33 Distillation Unit Fugitives (5)	VOC	0.04	0.16
FUA10	Clean-Up Unit Fugitives (5)	VOC	0.03	0.12
FUA11	Vac Flash Unit Fugitives (5)	VOC	0.03	0.15
FUA12	Full Range Acid Storage Fugitives (5)	VOC	0.01	0.02
FUA13	C-21 Distillation Unit Fugitives (5)	VOC	0.05	0.20
FUA14	Cooling Tower Fugitives (5)	VOC	0.01	0.02
FUA19	Acid Storage Fugitives (5)	VOC	0.02	0.08
FUA22A	Firewater House A	VOC	0.01	0.01

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	Fugitives (5)			
FUA22B	Firewater House B Fugitives (5)	VOC	0.01	0.01
FUA24	Truck Loading and Unloading Fugitives (5)	VOC	0.02	0.07
FUA25	T-171 to T-174 Storage Tank Fugitives (5)	VOC	0.03	0.13
FUA28	Water Recycle Fugitives (5)	VOC	0.01	0.03
FUA29	160 Series Tank Area Fugitives (5)	VOC	0.03	0.11
FUA30	Pipe Rack Fugitives (5)	VOC	0.01	0.02
FUA33	Finished Acid Storage and Handling Fugitives (5)	VOC	0.07	0.29
FUA35	Barge Facilities Fugitives (5)	VOC	<0.01	0.01
FUA36	Drumming Facilities Fugitives (5)	VOC	0.01	0.05
FUA37	Finished Acid Storage and Loading Fugitives (5)	VOC	0.06	0.26
FUA45	Residue Handling Fugitives (5)	VOC	0.02	0.07
FUA50	Wastewater Compliance and Trench Project Fugitives (5)	VOC	0.07	0.31
FUA50-A	T-25A Fugitives	VOC	<0.01	<0.01
FUA52	C-25 Distillation Unit Fugitives (5)	VOC	0.08	0.37
FUA54	OXR Unit Fugitives (5)	VOC	0.06	0.28
FUA74	T-150 series Tank Fugitives (5)	VOC	0.02	0.07
FUA75	Disposal Well Fugitives (5)	VOC	0.01	0.01
FUA77	T-225, T-226, and T- 40 Storage Fugitives (5)	VOC	0.02	0.08
FUA79	C-27 and C-29 Distillation Unit	VOC	0.03	0.14

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	Fugitives (5)			
FUA80	T-600, T-601, and T-780 Storage Tank Area Fugitives (5)	VOC	0.01	0.03
FUA86	Tanks T-911 through T-915 Area Fugitives (5)	VOC	0.01	0.02
FUA94	MP85 Dryer Fugitives (5)	VOC	0.01	0.05
FUA96	Bayou Area Tank Farm Fugitives (5)	VOC	0.02	0.06
FUA97	Meta-Para Storage Unit Fugitives (5)	VOC	0.01	0.02
FUA98	T-961 Area Fugitives (5)	VOC	0.02	0.08
FUA335	CUII Unit Fugitives (5)	VOC	0.06	0.25
	Total Site Emissions	Each HAP	-	3.72
		Sum of all HAP	-	5.30
Maintenance, Startup, and Shutdown				
COMBMSS	MSS Emissions controlled by Vapor Combustors	VOC	28.38	0.68
		NOx	2.93	0.01
		CO	5.85	0.02
CASMSS	MSS Emissions controlled by Carbon Adsorption	VOC	9.69	2.42
SCRUBMSS	MSS Emissions controlled by Scrubber	VOC	13.17	0.36
UNCONMSS	Uncontrolled MSS emissions	VOC	2.07	0.24
ATTACHA	Inherently low emitting MSS activities	VOC	4.25	0.09
		PM	0.02	0.01
		PM ₁₀	0.01	0.01
		PM _{2.5}	0.01	0.01
MSSSUMP	Sump Emissions	VOC	0.02	0.01
MSS CAP	MSS Emissions Cap	VOC	-	3.49

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
Project Number: 353642

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- (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_x - total oxides of nitrogen
SO₂ - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
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
NH₃ - Ammonia
NaOH - sodium hydroxide
KOH - potassium hydroxide
H₂SO₄ - sulfuric acid
- (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) The Total Annual Emissions for EPN's VEVCH601 and VEVCH602 shall not to exceed the limits represented by this annual emissions cap.
- (7) Hourly emissions represent the combined emission rate from production and MSS.
- (8) Annual MSS emissions are in addition to those authorized for normal production.
- (9) Annual emissions represent the combined emission rate for MSS activities.

Date: January 4, 2024