Emission Sources - Maximum Allowable Emission Rates

Permit Number 21538

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)
ES-801	Package Boiler	VOC	0.43	1.90
		NO_x	2.90	12.69
		SO_2	0.02	0.10
		PM_{10}	0.72	3.17
		$PM_{2.5}$	0.72	3.17
		CO	7.97	34.89
ES-802	Alkyl Flare	VOC	0.43	0.10
		NO_x	0.10	0.10
		SO_2	0.01	0.01
		CO	0.41	0.88
ES-805	South Flare (9)	VOC	28.91	10.40
		NO_x	4.71	2.03
		SO_2	0.01	0.01
		CO	25.11	11.18
	South Flare (MSS)	VOC	133.47	
		NO_x	13.56	
		SO_2	0.01	
		CO	97.93	
ES-815	South Thermal Oxidizer (9)	VOC	0.17	0.28
		NO_x	5.10	8.44

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		SO_2	0.01	0.01
		CO	2.84	4.70
	South Thermal Oxidizer (MSS)	VOC	0.17	
		NO_x	5.10	
		SO_2	0.01	
		CO	2.84	
F-8	Fugitives (5)	VOC	0.70	3.07
EF-806	Cooling Tower (5)	VOC	0.57	2.48
		PM	0.81	3.55
		PM_{10}	0.81	3.55
		$PM_{2.5}$	0.81	3.55
EF-807	Train 8 Reactor Jacket Cooling Tower	PM	0.17	0.72
		PM_{10}	0.17	0.72
		$PM_{2.5}$	0.17	0.72
EV-811	Cooling Water Additive Tanks	VOC	1.20	0.01
EV-871	Carlot Silo Blender Vent Filter	VOC	1.60	(6)
		PM	0.18	0.80
		PM_{10}	0.18	0.80
		$PM_{2.5}$	0.18	0.80
EV-872	Additive Feed Hopper Vent Filter	PM	0.04	0.02
		PM_{10}	0.04	0.02
		$PM_{2.5}$	0.04	0.02
EV-873	Pellet Dryer Exhaust	VOC	1.60	(6)
EV-874	Pellet Surge Hopper Vent	VOC	1.60	(6)
EV-875	Powder Master Batch Weigh Bin Vent Filter	PM	1.44	0.04

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		PM_{10}	1.44	0.04
		$PM_{2.5}$	1.44	0.04
EV-876-1	Pellet Classifier Vent	VOC	0.80	(6)
EV-876-2	Pellet Classifier Vent	VOC	0.80	(6)
EV-877-1	Pellet Classifier Vent	VOC	0.80	(6)
EV-877-2	Pellet Classifier Vent	VOC	0.80	(6)
EV-878-1	Railcar Loading Elutriator Bag Filter	VOC	2.50	(6)
		PM_{10}	0.05	0.08
		$PM_{2.5}$	0.05	0.08
EV-878-2	Railcar Loading Elutriator Bag Filter	VOC	2.50	(6)
		PM_{10}	0.05	0.08
		$PM_{2.5}$	0.05	0.08
T8-OG	Train 8 Off-Gas (6)	VOC		7.00
EV-854	Railcar Wash Vacuum Filter	PM	0.27	0.20
		PM_{10}	0.27	0.20
		$PM_{2.5}$	0.27	0.20
EF-906	Cooling Tower (5)	VOC	1.18	5.15
		PM	2.64	11.57
		PM_{10}	2.64	11.57
		$PM_{2.5}$	2.64	11.57
F-9	Fugitives (5)	VOC	0.92	4.03
EV-971	Carlot Silo Blender Vent Filter	VOC	2.60	(7)
		PM_{10}	0.32	1.22
		$PM_{2.5}$	0.32	1.22
EV-972A	Additive Hopper Vent Filter	PM	0.03	0.01

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EV-972B	Additive Hopper Vent Filter	PM	0.03	0.01
EV-978	Elutriator Bag Filter	VOC	2.60	(7)
		PM_{10}	0.06	0.24
		$PM_{2.5}$	0.06	0.24
EV-973A	Pellet Dryer Exhaust	VOC	1.30	(7)
EV-973B	Pellet Dryer Exhaust	VOC	1.30	(7)
EV-974A	Pellet Surge Hopper Vent	VOC	1.30	(7)
EV-974B	Pellet Classifier Vent	VOC	1.30	(7)
EV-975A	Pellet Classifier Vent	VOC	1.30	(7)
EV-975B	Pellet Classifier Vent	VOC	1.30	(7)
EV-976A	Pellet Classifier Vent	VOC	1.30	(7)
EV-976B	Pellet Classifier Vent	VOC	1.30	(7)
T9-OG	Train 9 Off-Gas (7)	VOC		10.00
ES-975	Blender/Feeder Vent Gas Catalytic Oxidizer (8)	VOC	0.20	0.75
		PM_{10}	0.38	0.14
		$PM_{2.5}$	0.38	0.14
		CO	0.01	0.03
ES-976	Train 8 and 9 Enclosed Vapor Combustor (8)	VOC	0.18	0.80
		NO_x	0.09	0.37
		SO_2	0.01	0.01
		PM_{10}	0.03	0.12
		$PM_{2.5}$	0.03	0.12
		CO	0.05	0.23
EV-911	Cooling Water Additive Tanks	VOC	1.20	0.01
EV-869	Additive Storage Tank Vent	VOC	0.01	0.01

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EV-808	Catalyst Building Guard Oil Tank Vent	VOC	0.19	0.01
EV-820	Mineral Oil Drying Tank Vent	VOC	0.01	0.01
EV-197	Mineral Oil Drying Tank Vent	VOC	0.01	0.01
EV-715	TEAL KO Pot Vent	VOC	0.01	0.01
Maintenance, Startup, and Shutdown (MSS)				
MSS-TR8	Train 8 MSS	VOC	52.73	0.10
MSS-TR9	Train 9 MSS	VOC	72.52	0.10

(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_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - 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
(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 T8-OG provides the cumulative annual VOC emission limit for EPNs EV-873, EV-874, EV-876-1, EV-876-2, EV-877-1, EV-877-2, EV-871, EV-878-1, and EV-878-2.
(7) EPN T9-OG provides the cumulative annual VOC emission limit for EPNs EV-973A, EV-973B, EV 974A, EV-974B, EV-975A, EV-975B, EV-976A, EV-976B, EV-971, and EV-978.
(8) ES-975 and ES-976 shall not emit simultaneously.
(9) These hourly emission rates apply to routine (non-MSS) operation. The hourly emission rate limits during MSS are designated (MSS). The annual emission rate limits apply to all operations (routine and MSS).

Date: December 12, 2013