

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 22377 and PSDTX832M5

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 (13)	
			lbs/hour	TPY (4)
RTOEAST/RTOWEST (6)	Dryers 1-5 Regenerative Thermal Oxidizers Exhaust Stack	PM	10.51	37.44
		PM ₁₀	10.51	37.44
		PM _{2.5}	10.51	37.44
		VOC (12)	14.41	51.32
		NOx	55.32	197.02
		SO ₂	2.18	9.55
		CO	148.51	528.94
		HCHO	2.45	8.74
RTOA-C (6)	Dryers 1-5 Regenerative Thermal Oxidizers Combined Exhaust Stack	PM	7.72	26.14
		PM ₁₀	7.72	26.14
		PM _{2.5}	7.72	26.14
		VOC (12)	23.56	79.74
		NOx	53.07	179.61
		SO ₂	2.18	9.55
		CO	179.61	607.91
		HCHO	2.85	8.39
RTOPRESS/RCOPRESS	Press Regenerative Thermal Oxidizer/Regenerative Catalytic Oxidizer Exhaust Stack	PM	5.53	18.70
		PM ₁₀	5.53	18.70
		PM _{2.5}	5.53	18.70
		VOC (12)	5.81	19.67
		NOx	28.54	96.62
		SO ₂	0.01	0.04
		CO	14.53	49.18
		HCHO	1.94	6.55
		MDI	0.01	0.02

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		C ₆ H ₅ OH	1.20	4.05
S-1	Saw Line Collector Baghouse Stack (saw line pick-up point and resizer mill)	PM	1.34	5.89
		PM ₁₀ (9)	1.34	5.89
		PM _{2.5}	1.34	5.89
		VOC (12)	3.89	13.17
S-2	Aspiration System Baghouse Stack (1 Core blender, 2 face blenders, 2 core forming bins, and 2 face forming bins)	PM	0.62	2.71
		PM ₁₀ (9)	0.62	2.71
		PM _{2.5}	0.62	2.71
		VOC (12)	9.19	31.11
		HCHO	0.40	1.35
		MDI	<0.01	0.02
		C ₆ H ₅ OH	0.01	0.03
		MeOH	7.03	23.78
S-3/4	Raw Fuel Bin Collector Baghouse Stack	PM	0.58	2.52
		PM ₁₀ (9)	0.58	2.52
		PM _{2.5}	0.58	2.52
		VOC (12)	3.36	11.39
		HCHO	0.03	0.11
		MeOH	0.14	0.49
S-5	Material Reject Collector Baghouse Stack	PM	1.43	6.28
		PM ₁₀ (9)	1.43	6.28
		PM _{2.5}	1.43	6.28
		VOC (12)	3.09	10.45
		HCHO	0.07	0.22
		MDI	<0.01	<0.01
		C ₆ H ₅ OH	<0.01	0.01
		MeOH	0.33	1.11
S-6	Tongue and Groove Sander Dust Collector Baghouse Stack (sander and edge	PM	1.12	4.93
		PM ₁₀ (9)	1.12	4.93

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		PM _{2.5}	1.12	4.93
		VOC (12)	1.76	5.94
S-7	Tongue and Groove Sander Transfer Bin Baghouse Stack	PM	0.02	0.08
		PM ₁₀ (9)	0.02	0.08
		PM _{2.5}	0.02	0.08
		VOC (12)	1.76	5.94
S-8	Finished Fuel Bin Collector Baghouse Stack (includes hammermill)	PM	0.71	3.10
		PM ₁₀ (9)	0.71	3.10
		PM _{2.5}	0.71	3.10
		VOC (12)	6.82	23.07
		MeOH	0.08	0.28
S-9	Thermal Oil Heater Fuel System Collector Baghouse Stack	PM	0.39	1.69
		PM ₁₀ (9)	0.39	1.69
		PM _{2.5}	0.39	1.69
		VOC (12)	1.14	3.85
		MeOH	0.01	0.05
R-1	PF Tank 1	HCHO	0.02	0.01
R-2	PF Tank 2	HCHO	0.02	0.01
R-3	MDI Tank 1	MDI	<0.01	<0.01
R-4	MDI Tank 2	MDI	<0.01	<0.01
T-1	Gasoline Tank	VOC (11)	0.30	0.66
T-3	Diesel Tank	VOC	0.10	<0.01
F-1	Fuel Pile (5)	PM	0.04	0.17
		PM ₁₀	0.04	0.17
		PM _{2.5}	0.04	0.17
		VOC	0.40	1.76
BARK	Bark Handling System (bark storage bin, conveyor drop points, and truck loadout) (5)	PM	0.41	0.90
		PM ₁₀	0.19	0.42
		PM _{2.5}	0.03	0.06

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FINES	Excess Fuel System (5)	PM	0.05	0.10
		PM ₁₀	0.02	0.05
		PM _{2.5}	<0.01	0.01
TOH-1 (8)	Thermal Oil Heaters Bypass Stack	PM	0.22	0.98
		PM ₁₀	0.22	0.98
		PM _{2.5}	0.22	0.98
		VOC (12)	0.16	0.71
		NO _x	2.94	12.88
		SO ₂	0.02	0.08
		CO	2.47	10.82
GEN-1	Emergency Generator Exhaust Stack	PM	5.90	0.44
		PM ₁₀	5.90	0.44
		PM _{2.5}	5.90	0.44
		VOC	0.20	0.01
		NO _x	15.53	1.17
		SO ₂	4.25	0.32
		CO	7.11	0.53
FWP-1	Fire Water Pump Exhaust Stack	PM	1.40	0.07
		PM ₁₀	1.40	0.07
		PM _{2.5}	1.40	0.07
		VOC	0.16	0.01
		NO _x	4.00	0.20
		SO ₂	1.04	0.05
		CO	3.45	0.17
PB-1	Paint Booth (5)	PM	0.68	1.49
		PM ₁₀	0.68	1.49
		PM _{2.5}	0.68	1.49
		VOC	1.54	3.37
PB-2	Tongue and Groove Paint	PM	0.65	1.42

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		PM ₁₀	0.65	1.42
		PM _{2.5}	0.65	1.42
		VOC	1.46	3.19
DRYER MSS (7)	Dryers 1-5 Bypass Exhaust Stacks	PM	28.00	2.80
		PM ₁₀	20.00	2.00
		PM _{2.5}	20.00	2.00
		VOC (12)	40.50	4.05
		NO _x	3.50	0.35
		CO	26.50	2.65
		HCHO	1.59	0.16
PRESSVENT MSS	Press Bypass Exhaust Stack	PM	4.66	0.12
		PM ₁₀	2.33	0.06
		PM _{2.5}	2.33	0.06
		VOC (12)	20.68	0.52
		NO _x	0.37	0.01
		SO ₂	0.33	0.01
		CO	0.90	0.02
		HCHO	0.52	0.01
		MDI	0.12	<0.01
		C ₆ H ₅ OH	0.33	0.01
S-1 MSS (10)	Saw Line Bypass Exhaust Stack	PM	4.03	0.20
		PM ₁₀ (9)	4.03	0.20
		PM _{2.5}	4.03	0.20
S-3/4 MSS (10)	Raw Fuel Bypass Exhaust Stack	PM	3.46	0.35
		PM ₁₀ (9)	3.46	0.35
		PM _{2.5}	3.46	0.35

(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

SO₂ - sulfur dioxide

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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
HCHO	- formaldehyde
MDI	- methylene-diphenyl-diisocyanate
C ₆ H ₅ OH	- phenol
MeOH	- methanol

- (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 emission limits represented for EPN RTOEAST/RTOWEST are effective before startup of operation through EPN RTOA-C and represent the maximum combined emissions for both RTOs. The emission limits represented for EPN RTOA-C are effective after startup of RTOA-C, as authorized by permit amendment, NSR Project No. 320134. EPN RTOA-C represents a single emission point from the 3 Regenerative Thermal Oxidizers.
- (7) Represent total emissions from all 5 dryers. The total emissions for the 5 dryers were used in the modeling.
- (8) The thermal oil heaters vent to the atmosphere through this bypass stack only when these thermal oil heaters use natural gas as fuel. The main thermal oil heater uses wood dust as fuel and vents through the dryers exhaust stack (EPN RTOEAST/RTOWEST prior to operation of the new RTOs and EPN RTOA-C after start of operation of the new RTOs) when using wood as fuel. The backup thermal oil heater only uses natural gas as fuel and exhausts through EPN TOH-1 when in use.
- (9) Also counted as wood dust.
- (10) These are not additional EPNs but represent emissions from EPNs S-1 and S-3/4 during emergency shutdown.
- (11) VOC includes benzene.
- (12) VOCs are quantified as propane.
- (13) Planned startup and shutdown emissions are included, as well as planned maintenance activities identified in the Special Conditions Numbers 17 and 21 of this permit.

Date: November 10, 2020