

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 946A

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. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

AIR CONTAMINANTS DATA

Emission Rates *	Source	Air Contaminant	Emission	
			lb/hr	TPY
Point No. (1)	Name (2)	Name (3)		
1/2	Line No. 92 Collector - Stacks	PM	14.00	61.32
		VOC	TR	0.06
		NO _x	0.37	1.63
		SO ₂	TR	0.01
		CO	0.08	0.34
		NH ₃	10.00	43.80
		Formaldehyde	3.00	13.14
		Phenol	2.00	8.76
		Methyl Alcohol	1.80	7.88
		PHMP	19.90	87.16
3/6	Line No. 92/93 Oven High Energy Air Filtration (HEAF) Stack	PM ₁₀	5.50	24.09
		VOC	0.13	0.59
		NO _x	6.72	29.43
		SO ₂	0.03	0.13
		CO	1.68	7.36
		NH ₃	7.00	30.66
		Formaldehyde	2.50	10.95
		Phenol	0.12	0.53
		Methyl Alcohol	0.09	0.39
		PHMP	1.03	4.51
4/5	Line No. 93 Collector - Stacks	PM	14.00	61.32
		VOC	TR	0.06
		NO _x	0.37	1.63
		SO ₂	TR	0.01
		CO	0.08	0.34
		NH ₃	10.00	43.80
		Formaldehyde	3.00	13.14

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			lb/hr	TPY
Point No. (1)	Name (2)	Name (3)		
15A	Glass Furnaces (1901 and 1902) 42.05 ESP-Stack	Phenol	2.00	8.76
		Methyl Alcohol	1.80	7.88
		PHMP	19.90	87.16
		PM ₁₀		9.60
		VOC	0.24	1.07
		NO _x	14.35	62.85
		SO ₂	6.85	30.00
FHFUG	1901 Forehearth (4)	CO	2.00	8.76
		PM ₁₀	0.25	1.10
		NO _x	1.46	6.40
		SO ₂	TR	0.05
		CO	1.10	4.80
FMFUG	1901 Forming Area (4)	VOC	4.39	19.20
BFUG	1901 Batch Plant (4)	PM ₁₀	0.06	0.28
MXBIN1	1901 E-Glass Mixing Bin (North) 0.06		PM ₁₀	0.014
MXBIN2	1901 E-Glass Mixing Bin (South) 0.06		PM ₁₀	0.014
16	Line No. 91 Collection Wet Scrubber No. 1 - Stack	PM ₁₀	3.75	16.43
		VOC	TR	0.02
		NO _x	0.12	0.53
		SO ₂	TR	<0.01
		CO	0.03	0.11
		NH ₃	3.50	15.33
		Formaldehyde	0.75	3.29
		Phenol	0.75	3.29
17	Line No. 91	PM ₁₀	3.75	16.43

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			lb/hr	TPY
Point No. (1)	Name (2)	Name (3)		
	Collection Wet	VOC	TR	0.02
	Scrubber No. 2 -	NO _x	0.12	0.53
	Stack	SO ₂	TR	0.01
		CO	0.03	0.11
		NH ₃	3.50	15.33
		Formaldehyde	0.75	3.29
		Phenol	0.75	3.29
18	Line No. 91	PM ₁₀	3.75	16.43
	Collection Wet	VOC	TR	0.02
	Scrubber No. 3 -	NO _x	0.12	0.53
	Stack	SO ₂	TR	<0.01
		CO	0.03	0.11
		NH ₃	3.50	15.33
		Formaldehyde	0.75	3.29
		Phenol	0.75	3.29
19	Line No. 91	PM ₁₀	3.75	16.43
	Collection Wet	VOC	TR	0.02
	Scrubber No. 4 -	NO _x	0.12	0.53
	Stack	SO ₂	TR	<0.01
		CO	0.03	0.11
		NH ₃	3.50	15.33
		Formaldehyde	0.75	3.29
		Phenol	0.75	3.29
20	Line No. 91	PM ₁₀	3.75	16.43
	Oven Wet	VOC	0.03	0.15
	Scrubber - Stack	NO _x	0.90	3.94
		SO ₂	TR	0.02
		CO	0.19	0.83
		NH ₃	3.50	15.33
		Formaldehyde	1.75	7.67
		Phenol	1.00	4.38
21	Baghouse No. 1 -	PM ₁₀	0.34	1.49

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			lb/hr	TPY
Point No. (1)	Name (2)	Name (3)		
	Stack	VOC	TR	0.06
		NO _x	0.33	1.45
		SO ₂	TR	0.01
		CO	0.07	0.30
		Boron Oxide	0.40	1.75
22	Baghouse No. 2 - Stack	PM ₁₀	0.06	0.26
23	Baghouse No. 3 - Stack	PM ₁₀	0.03	0.13
24	Baghouse No. 4 - Stack	PM ₁₀	0.03	0.13
25	Baghouse No. 5 - Stack	PM ₁₀	0.03	0.13
26	Baghouse No. 6 - Stack	PM ₁₀	0.03	0.13
27	Baghouse No. 7 - Stack	PM ₁₀	0.03	0.13
28	Baghouse No. 8 - Stack	PM ₁₀	0.03	0.13
29	Baghouse No. 9 - Stack	PM ₁₀	0.03	0.13
30	Line No. 90 Infrared Zone Stack	PM	0.50	2.19
		VOC	TR	0.06
		NO _x	0.69	3.03
		SO ₂	TR	0.01
		CO	0.17	0.76
		NH ₃	0.13	0.57
		Formaldehyde	0.13	0.57
		Phenol	TR	0.06
31	Line No. 90 Oven Zone 1 Stack	PM	0.50	2.19
		VOC	TR	0.06
		NO _x	0.69	3.03
		SO ₂	TR	0.01
		CO	0.17	0.76
		NH ₃	0.13	0.57

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Emission Rates *	Source	Air Contaminant	Emission	
			lb/hr	TPY
Point No. (1)	Name (2)	Name (3)		
		Formaldehyde	0.13	0.57
		Phenol	TR	0.06
32	Line No. 90 Oven Zone 2 Stack	PM	0.50	2.19
		VOC	TR	0.06
		NO _x	0.69	3.03
		SO ₂	TR	0.01
		CO	0.17	0.76
		NH ₃	0.13	0.57
		Formaldehyde	0.13	0.57
		Phenol	TR	0.06
33	Line No. 90 Oven Zone 3 Stack	PM	0.50	2.19
		VOC	TR	0.06
		NO _x	0.69	3.03
		SO ₂	TR	0.01
		CO	0.17	0.76
		NH ₃	0.13	0.57
		Formaldehyde	0.13	0.57
		Phenol	TR	0.06
35	South Trim Waste Re-Feed Baghouse	PM ₁₀	0.03	0.12
36	North Trim Waste Re-Feed Baghouse	PM ₁₀	0.03	0.12
37	Off-Line Trim Waste Re-Feed Baghouse	PM ₁₀	0.08	0.36

(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) PM - particulate matter

PM₁₀ - particulate matter less than 10 microns in diameter

VOC - volatile organic compounds as defined in General Rule 101.1

- NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - CO - carbon monoxide
 - NH₃ - ammonia
 - PHMP - poly(hydroxymethyl)phenol
 - TR - trace emissions, ≤0.01 lbs/hr
- (4) Fugitive emissions are an estimate only.

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- * Emission rates are based on and the facilities are limited by the following maximum hourly production rates for each of the following lines:

Line 92	1,800 lbs/hr
Line 93	1,800 lbs/hr
Line 91	6,000 lbs/hr
E-Glass	(Confidential file)

- * Annual emission rates are based on the following continuous operation schedule:

Hrs/day_____ Days/week_____ Weeks/year_____ or Hrs/year____
8,760

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<u>Emission Rates *</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Emission</u>	
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>

Dated_____