Permit Number 56300

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.

Emission	Source	Air Contaminant	Emission	<u>Rates</u>
Point No. (1)	Name (2)	Name (3)	lb/hr	<u>TPY</u>
10C1	Scrubber 10S7N Potline 3	PM PM ₁₀ NO _x 0.15 CO 182.82 SO ₂ 12.50 COS 1.30 PF 5.05 HF 1.15	3.84 2.73 0.68 799.87 53.74 5.70 22.13 5.02	16.82 11.94
10C2	Scrubber 10S7S Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} & \\ \text{NO}_{\times} & 0.15 & \\ \text{CO} & 182.82 & \\ \text{SO}_{2} & 12.50 & \\ \text{COS} & 1.30 & \\ \text{PF} & 5.05 & \\ \text{HF} & 1.15 & \\ \end{array}$	3.84 2.73 0.68 799.87 53.74 5.70 22.13 5.02	16.82 11.94
10C3	Scrubber 10S8N Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} & \\ \text{NO}_x & 0.15 & \\ \text{CO} & 182.82 & \\ \text{SO}_2 & 12.50 & \\ \text{COS} & 1.30 & \\ \text{PF} & 5.05 & \\ \text{HF} & 1.15 & \\ \end{array}$	3.84 2.73 0.68 799.87 53.74 5.70 22.13 5.02	16.82 11.94
10C4	Scrubber 10S8S Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} & \\ \text{NO}_{x} & 0.15 & \\ \text{CO} & 182.82 & \\ \text{SO}_{2} & 12.50 & \\ \text{COS} & 1.30 & \\ \text{PF} & 5.05 & \\ \text{HF} & 1.15 & \\ \end{array}$	3.84 2.73 0.68 799.87 53.74 5.70 22.13 5.02	16.82 11.94

Emission	Source	Air Contaminant	Emission Rates	
Point No. (1)	Name (2)	Name (3)	lb/hr	<u>TPY</u>
10C5	Potline Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} & \\ \text{NO}_{x} & 0.15 & \\ \text{CO} & 182.82 & \\ \text{SO}_{2} & 12.50 & \\ \text{COS} & 1.30 & \\ \end{array}$	3.84 2.73 0.68 799.87 53.74 5.70	16.82 11.94
		PF 5.05 HF 1.15	22.13 5.02	
10C6	Potline Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} & \\ \text{NO}_{x} & 0.15 & \\ \text{CO} & 182.82 & \\ \text{SO}_{2} & 12.50 & \\ \text{COS} & 1.30 & \\ \text{PF} & 5.05 & \\ \text{HF} & 1.15 & \\ \end{array}$	3.84 2.73 0.68 799.87 53.74 5.70 22.13 5.02	16.82 11.94
10C7	Scrubber 10S7NW Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} \\ \text{NO}_{\times} & 0.15 \\ \text{CO} & 182.82 \\ \text{SO}_{2} & 12.50 \\ \text{COS} & 1.30 \\ \text{PF} & 5.05 \\ \text{HF} & 1.15 \\ \end{array}$	3.84 2.73 0.68 799.87 53.74 5.70 22.13 5.02	16.82 11.94
10C8	Scrubber 10S7SW Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} \\ \text{NO}_{\times} & 0.15 \\ \text{CO} & 182.82 \\ \text{SO}_{2} & 12.50 \\ \text{COS} & 1.30 \\ \text{PF} & 5.05 \\ \text{HF} & 1.15 \\ \end{array}$	3.84 2.73 0.68 799.87 53.74 5.70 22.13 5.02	16.82 11.94

Emission	ission Source Air Contaminant		Emission Rates	
Point No. (1)	Name (2)	Name (3)	lb/hr	<u>TPY</u>
F10C-1	Roof Monitor Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} & \\ \text{NO}_{\times} & 0.01 & \\ \text{CO} & 5.59 & \\ \text{SO}_{2} & 0.75 & \\ \text{COS} & 0.08 & \\ \text{PF} & 2.06 & \\ \text{HF} & 2.28 & \\ \end{array}$	6.40 3.71 0.03 24.49 3.29 0.34 9.02 10.00	28.03 16.26
F10C-2	Roof Monitor Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} & \\ \text{NO}_{\times} & 0.01 & \\ \text{CO} & 5.59 & \\ \text{SO}_{2} & 0.75 & \\ \text{COS} & 0.08 & \\ \text{PF} & 2.06 & \\ \text{HF} & 2.28 & \\ \end{array}$	6.40 3.71 0.03 24.49 3.29 0.34 9.02 10.00	28.03 16.26
F10C-3	Roof Monitor Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} & \\ \text{NO}_{x} & 0.01 & \\ \text{CO} & 5.59 & \\ \text{SO}_{2} & 0.75 & \\ \text{COS} & 0.08 & \\ \text{PF} & 2.06 & \\ \text{HF} & 2.28 & \\ \end{array}$	6.04 3.71 0.03 24.49 3.29 0.34 9.02 10.00	28.03 16.26
F10C-4	Roof Monitor Potline 3	$\begin{array}{ccc} & \text{PM} & \\ & \text{PM}_{10} & \\ \text{NO}_{x} & 0.01 & \\ \text{CO} & 5.59 & \\ \text{SO}_{2} & 0.75 & \\ \end{array}$	6.40 3.71 0.03 24.49 3.29	28.03 16.26

Emission	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)		Name (3)	lb/hr	<u>TPY</u>
		COS PF HF	0.08 2.06 2.28	0.34 9.02 10.00	
10D1	Scrubber 10S10N Potline 4	NO _x CO SO ₂ COS PF HF	PM PM ₁₀ 0.15 234.80 12.50 1.30 0.54 1.01	3.66 3.66 0.68 1028.41 54.74 5.70 2.37 4.44	16.01 16.01
10D2	Scrubber 10S10S Potline 4	NO _x CO SO ₂ COS PF HF	PM PM ₁₀ 0.15 234.80 12.50 1.30 0.54 1.01	3.66 3.66 0.68 1028.41 54.74 5.70 2.37 4.44	16.01 16.01
10D3	Scrubber 10S11N Potline 4	NO _x CO SO ₂ COS PF HF	PM PM ₁₀ 0.15 234.80 12.50 1.30 0.54 1.01	3.66 3.66 0.68 1028.41 54.74 5.70 2.37 4.44	16.01 16.01
10D4	Scrubber 10S11S Potline 4		PM PM ₁₀	3.66 3.66	16.01 16.01

Emission	Source	Air	Contaminant	Emission Rates	
Point No. (1)	Name (2)		Name (3)	<u>lb/hr</u>	TPY
		NO _x CO SO ₂ COS PF HF	0.15 234.80 12.50 1.30 0.54 1.01	0.68 1028.41 54.74 5.70 2.37 4.44	
10D5	Scrubber 12N Potline 4	NO _x CO SO ₂ COS PF HF	PM PM ₁₀ 0.15 234.80 12.50 1.30 0.54 1.01	3.66 3.66 0.68 1028.41 54.74 5.70 2.37 4.44	16.01 16.01
10D6	Scrubber 12S Potline 4	NO _x CO SO ₂ COS PF HF	PM PM ₁₀ 0.15 234.80 12.50 1.30 0.54 1.01	3.66 3.66 0.68 1028.41 54.74 5.70 2.37 4.44	16.01 16.01
10D-7	Scrubber 10S1L Potline 4	NO _x CO SO ₂ COS PF HF	PM PM ₁₀ 0.15 234.80 12.50 1.30 0.54 1.01	3.66 3.66 0.68 1028.41 54.74 5.70 2.37 4.44	16.01 16.01

Emission	Source	Air	Contaminant	Emission	<u>Rates</u>
Point No. (1)	Name (2)		Name (3)	lb/hr	<u>TPY</u>
10D-8	Scrubber 10S12 Potline 4	NO _x CO SO₂ COS PF HF	PM PM ₁₀ 0.15 234.80 12.50 1.30 0.54 1.01	3.66 3.66 0.68 1028.41 54.74 5.70 2.37 4.44	16.01 16.01
10D-9	Scrubber 10S12 Potline 4	NO _x CO SO ₂ COS PF HF	PM PM ₁₀ 0.15 234.80 12.50 1.30 0.54 1.01	3.66 3.66 0.68 1028.41 54.74 5.70 2.37 4.44	16.01 16.01
F10D-1	Roof Monitor Potline 4	NO _x CO SO ₂ COS PF HF	PM PM ₁₀ 0.01 7.19 0.75 0.08 1.07 1.27	6.40 3.71 0.02 31.48 3.29 0.34 4.68 5.57	28.03 16.26
F10D-2	Roof Monitor Potline 4	NO _x CO SO ₂	PM PM ₁₀ 0.01 7.19 0.75	6.40 3.71 0.02 31.48 3.29	28.03 16.26

Emission	Source	Air	Contaminant	Emissio	n Rates
Point No. (1)	Name (2)		Name (3)	lb/hr	<u>TPY</u>
		COS PF HF	0.08 1.07 1.27	0.34 4.68 5.57	
F10D-3	Roof Monitor Potline 4	NO _x CO SO₂ COS PF HF	PM PM ₁₀ 0.01 7.19 0.75 0.08 1.07 1.27	6.40 3.71 0.02 31.48 3.29 0.34 4.68 5.57	28.03 16.26
F10D-4	Roof Monitor Potline 4	NO _x CO SO ₂ COS PF HF	PM PM ₁₀ 0.01 7.19 0.75 0.08 1.07 1.27	6.40 3.71 0.02 31.48 3.29 0.34 4.68 5.57	28.03 16.26
10E1	Fluid Bed Reactor - 51N Potline 5		$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS \\ PF \\ HF \end{array}$	2.81 2.81 0.10 121.75 16.34 1.70 0.18 0.08	12.29 12.29 0.45 533.25 71.55 7.45 0.77 0.36
10E2	Fluid Bed Reactor 52N		PM	2.81	12.29

Emission	Source	Air Contaminant	Emission Rates		
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY	
	Potline 5	PM_{10} NO_{x} CO SO_{2} COS PF HF	2.81 0.10 121.75 16.34 1.70 0.18 0.08	12.29 0.45 533.25 71.55 7.45 0.77 0.36	
10E3	Fluid Bed Reactor 53N Potline 5	$\begin{array}{c} PM \\ PM_{10} \\ NO_x \\ CO \\ SO_2 \\ COS \\ PF \\ HF \end{array}$	2.81 2.81 0.10 121.75 16.34 1.70 0.18 0.08	12.29 12.29 0.45 533.25 71.55 7.45 0.77 0.36	
10E4	Fluid Bed Reactor 54N Potline 5	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS \\ PF \\ HF \end{array}$	2.81 2.81 0.10 121.75 16.34 1.70 0.18 0.08	12.29 12.29 0.45 533.25 71.55 7.45 0.77 0.36	
10E5	Fluid Bed Reactor 55S Potline 5	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS \\ PF \\ HF \end{array}$	2.81 2.81 0.10 121.75 16.34 1.70 0.18 0.08	12.29 12.29 0.45 533.25 71.55 7.45 0.77 0.36	

Emission	Source	Air Contaminant	Emission Rates		
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY	
10E6	Fluid Bed Reactor 56S	PM	2.81	12.29	
	Potline 5	PM_{10}	2.81	12.29	
		NO_x	0.10	0.45	
		CO	121.75	533.25	
		SO_2	16.34	71.55	
		COS	1.70	7.45	
		PF	0.18	0.77	
		HF	0.08	0.36	
10E7	Fluid Bed Reactor 57S	PM	2.81	12.29	
	Potline 5	PM_{10}	2.81	12.29	
		NO_x	0.10	0.45	
		CO	121.75	533.25	
		SO_2	16.34	71.55	
		COS	1.70	7.45	
		PF	0.18	0.77	
		HF	0.08	0.36	
10E8	Fluid Bed Reactor 58S	PM	2.81	12.29	
	Potline 5	PM_{10}	2.81	12.29	
		NO_x	0.10	0.45	
		CO	121.75	533.25	
		SO_2	16.34	71.55	
		COS	1.70	7.45	
		PF	0.18	0.77	
		HF	0.08	0.36	
10E9	Fluid Bed Reactor 59S	PM	2.81	12.29	
	Potline 5	PM_{10}	2.81	12.29	
		NO_x	0.10	0.45	
		CO	121.75	533.25	
		SO ₂	16.34	71.55	

Emission	Source	Air	Contaminant _	Emission	<u>Rates</u>
Point No. (1)	Name (2)		Name (3)	lb/hr	<u>TPY</u>
			COS PF HF	1.70 0.18 0.08	7.45 0.77 0.36
10E10	Potline 5	PF	PM PM ₁₀ <0.01	0.04 0.04 0.01	0.16 0.16
10E11	Potline 5	PF	PM PM ₁₀ <0.01	0.04 0.04 0.01	0.16 0.16
F10E-1	Roof Monitor Potline 5	NO _x	PM PM ₁₀ 0.01	6.40 3.71 0.03	28.03 16.26
		SO ₂	CO 0.75 COS 1.94 HF	5.59 3.29 0.08 8.50 1.28	24.49 0.34 5.59
F10E-2	Roof Monitor Potline 5	NO _x SO ₂ PF	PM PM ₁₀ 0.01 CO 0.75 COS 1.94 HF	6.40 3.71 0.03 5.59 3.29 0.08 8.50 1.28	28.03 16.26 24.49 0.34 5.59
F10E-3	Roof Monitor Potline 5		PM PM ₁₀	6.40 3.71	28.03 16.26

Emission	Source	Air	Contaminant	Emissic	n Rates
Point No. (1)	Name (2)		Name (3)	lb/hr	<u>TPY</u>
		NO _x SO ₂ PF	0.01 CO 0.75 COS 1.94 HF	0.03 5.59 3.29 0.08 8.50 1.28	24.49 0.34 5.59
F10E-4	Roof Monitor Potline 5	NO _x SO ₂ PF	PM PM ₁₀ 0.01 CO 0.75 COS 1.94 HF	6.40 3.71 0.03 5.59 3.29 0.08 8.50 1.28	28.03 16.26 24.49 0.34 5.59
10F1	Potline Potline 6	NO _x SO ₂ PF	PM PM ₁₀ 0.09 CO 7.34 COS 0.86 HF	2.30 1.64 0.40 138.00 32.17 0.77 3.76 0.93	10.09 7.16 604.45 3.35 4.06
10F2	Potline Potline 6	NO _x SO ₂ PF	PM PM ₁₀ 0.09 CO 7.34 COS 0.86 HF	2.30 1.64 0.40 138.00 32.17 0.77 3.76 0.93	10.09 7.16 604.45 3.35 4.06

Emission	Source	Air	Contaminant	Emissio	n Rates_
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
10F3	Potline		PM	2.30	10.09
	Potline 6		PM_{10}	1.64	7.16
		NO_x	0.09	0.40	
			CO	138.00	604.45
		SO_2	7.34	32.17	
			COS	0.77	3.35
		PF	0.86	3.76	
			HF	0.93	4.06
10F4	Potline		PM	2.30	10.09
	Potline 6		PM_{10}	1.64	7.16
		NO_x	0.09	0.40	
			CO	138.00	604.45
		SO_2	7.34	32.17	
			COS	0.77	3.35
		PF	0.86	3.76	
			HF	0.93	4.06
10F5	Potline		PM	2.30	10.09
	Potline 6		PM_{10}	1.64	7.16
		NO_x	0.09	0.40	
			CO	138.00	604.45
		SO_2	7.34	32.17	
			COS	0.77	3.35
		PF	0.86	3.76	
			HF	0.93	4.06
10F6	Potline		PM	2.30	10.09
	Potline 6		PM ₁₀	1.64	7.16
		NO_x	0.09	0.40	
		- 11	CO	138.00	604.45
		SO_2	7.34	32.17	

Emission	Source	Air	Contaminant	<u>Emissio</u>	on Rates
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
		PF	COS 0.86 HF	0.77 3.76 0.93	3.35 4.06
10F7	Potline Potline 6	NO _x SO ₂ PF	PM PM ₁₀ 0.09 CO 7.34 COS 0.86 HF	2.30 1.64 0.40 138.00 32.17 0.77 3.76 0.93	10.09 7.16 604.45 3.35 4.06
10F8	Potline Potline 6	NO _x SO ₂ PF	PM PM ₁₀ 0.09 CO 7.34 COS 0.86 HF	2.30 1.64 0.40 138.00 32.17 0.77 3.76 0.93	10.09 7.16 604.45 3.35 4.06
10F9	Potline Potline 6	NO _x SO ₂ PF	PM PM ₁₀ 0.09 CO 7.34 COS 0.86 HF	2.30 1.64 0.40 138.00 32.17 0.77 3.76 0.93	10.09 7.16 604.45 3.35 4.06
10F10	Potline Potline 6		PM PM ₁₀	2.30 1.64	10.09 7.16

Emission	Source	Air	Contaminant	Emissio	on Rates_
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
. ,		NO _x SO ₂ PF	0.09 CO 7.34 COS 0.86	0.40 138.00 32.17 0.77 3.76	604.45 3.35
10F11	Potline Potline 6	NO _x SO ₂ PF	PM PM ₁₀ 0.09 CO 7.34 COS 0.86 HF	0.93 2.30 1.64 0.40 138.00 32.17 0.77 3.76 0.93	4.06 10.09 7.16 604.45 3.35 4.06
10F12	Potline Potline 6	NO _x SO ₂ PF	PM PM ₁₀ 0.09 CO 7.34 COS 0.86 HF	2.30 1.64 0.40 138.00 32.17 0.77 3.76 0.93	10.09 7.16 604.45 3.35 4.06
F10F-1	Roof Monitor Potline 6	NO _x	PM PM ₁₀ 0.01 CO SO ₂ 0.16 PF HF	6.40 3.71 0.04 14.38 1.50 0.68 1.60 2.49	28.03 16.26 62.96 6.57 7.03 10.92
F10F-2	Roof Monitor Potline 6	NO _x	PM PM ₁₀ 0.01	6.40 3.71 0.04	28.03 16.26

Emission	Source	Air	Contaminant	Emissio	n Rates
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
		COS	CO SO ₂ 0.16 PF HF	14.38 1.50 0.68 1.60 2.49	62.96 6.57 7.03 10.92
F10F-3	Roof Monitor Potline 6	NO _x	PM PM ₁₀ 0.01 CO SO ₂ 0.16 PF HF	6.40 3.71 0.04 14.38 1.50 0.68 1.60 2.49	28.03 16.26 62.96 6.57 7.03 10.92
F10F-4	Roof Monitor Potline 6	NO _x	PM PM ₁₀ 0.01 CO SO ₂ 0.16 PF HF	6.40 3.71 0.04 14.38 1.50 0.68 1.60 2.49	28.03 16.26 62.96 6.57 7.03 10.92
10G1	Fluid Bed Reactor 71E Potline 7	cos	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ 1.84 \\ PF \\ HF \end{array}$	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35

Emission	Source	Air Contaminant		on Rates_
Point No. (1)	Name (2)	Name (3)	<u>lb/hr</u>	<u>TPY</u>
10G2	Fluid Bed Reactor 72E Potline 7	$\begin{array}{c} PM \\ PM_{10} \\ NO_x \\ CO \\ SO_2 \\ COS 1.84 \\ PF \\ HF \end{array}$	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35
10G3	Fluid Bed Reactor 73E Potline 7	$\begin{array}{c} PM \\ PM_{10} \\ NO_x \\ CO \\ SO_2 \\ COS 1.84 \\ PF \\ HF \end{array}$	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35
10G4	Fluid Bed Reactor 74E Potline 7	$\begin{array}{c} PM \\ PM_{10} \\ NO_x \\ CO \\ SO_2 \\ COS 1.84 \\ PF \\ HF \end{array}$	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35
10G5	Fluid Bed Reactor 75E Potline 7	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS 1.84 \\ PF \\ HF \end{array}$	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35

Emission	Source	Air C	Contaminant	Emissio	n Rates
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
10G6	Fluid Bed Reactor 76E Potline 7	cos	PM PM_{10} NO_{x} CO SO_{2} 1.84 PF HF	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35
10G7	Fluid Bed Reactor 71W Potline 7	cos	PM PM ₁₀ NO _x CO SO ₂ 1.84 PF HF	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35
10G8	Fluid Bed Reactor 72W Potline 7	cos	PM PM ₁₀ NO _x CO SO ₂ 1.84 PF HF	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35
10G9	Fluid Bed Reactor 73W Potline 7		PM PM ₁₀ NO _x CO SO ₂ 1.84	3.15 3.15 0.11 131.50 17.66 8.05	13.79 13.79 0.49 575.99 77.28

Emission	Source	Air	Contaminant	<u>Emissic</u>	n Rates_
Point No. (1)	Name (2)		Name (3)	lb/hr	<u>TPY</u>
			PF HF	0.06 0.08	0.26 0.35
10G10	Fluid Bed Reactor 74W Potline 7	cos	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ 1.84 \\ PF \\ HF \end{array}$	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35
10G11	Fluid Bed Reactor 75W Potline 7	cos	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ 1.84 \\ PF \\ HF \end{array}$	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35
10G12	Fluid Bed Reactor 76W Potline 7	cos	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ 1.84 \\ PF \\ HF \end{array}$	3.15 3.15 0.11 131.50 17.66 8.05 0.06 0.08	13.79 13.79 0.49 575.99 77.28 0.26 0.35
10G13	Reacted Aluminum Baghouse	e PF	PM/PM ₁₀ <0.01	0.03 <0.01	0.13

Emission	Source	Air	Contaminant	<u>Emissior</u>	<u>Rates</u>
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
10G14	Reacted Aluminum Baghouse	PF	PMPM ₁₀ <0.01	0.03 <0.01	0.13
F10G-1	Roof Monitor Potline 7	cos	PM_1 PM_{10} NO_x CO SO_2 0.08 PF HF	9.17 5.32 0.01 6.01 0.81 0.37 3.04 1.91	40.16 23.29 0.03 26.31 3.53 13.33 8.36
F10G-2	Roof Monitor Potline 7	cos	PM_1 PM_{10} NO_x CO SO_2 0.08 PF HF	9.17 5.32 0.01 6.01 0.81 0.37 3.04 1.91	40.16 23.29 0.03 26.31 3.53 13.33 8.36
F10G-3	Roof Monitor Potline 7	cos	PM_1 PM_{10} NO_x CO SO_2 0.08 PF HF	9.17 5.32 0.01 6.01 0.81 0.37 3.04 1.91	40.16 23.29 0.03 26.31 3.53 13.33 8.36

Emission	Source	Air Contaminant	Emissio	n Rates
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
F10G-4	Roof Monitor	PM_1	9.17	40.16
	Potline 7	PM_{10}	5.32	23.29
		NO_x	0.01	0.03
		CO	6.01	26.31
		SO ₂	0.81	3.53
		COS 0.08	0.37	
		PF	3.04	13.33
		HF	1.91	8.36
10H1	Fluid Bed Reactor 81E	PM	2.94	12.85
	Potline 8	PM_{10}	2.94	12.85
		NO _x	0.11	0.49
		CO	131.50	575.99
		SO_2	17.64	77.28
		COS	1.84	8.05
		PF	0.07	0.32
		HF	0.17	0.76
10H2	Fluid Bed Reactor 82E	PM	2.94	12.85
	Potline 8	PM_{10}	2.94	12.85
		NO _x	0.11	0.49
		CO	131.50	575.99
		SO ₂	17.64	77.28
		COS	1.84	8.05
		PF	0.07	0.32
		HF	0.17	0.76
10H3	Fluid Bed Reactor 83E	PM	2.94	12.85
	Potline 8	PM_{10}	2.94	12.85
		NO_x	0.11	0.49
		CO	131.50	575.99
		SO_2	17.64	77.28
		COS	1.84	8.05

Emission	Source	Air Contaminant	Emissio	on Rates
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		PF HF	0.07 0.17	0.32 0.76
10H4	Fluid Bed Reactor 84E Potline 8	PM PM ₁₀ NO _x CO SO ₂ COS PF HF	2.94 2.94 0.11 131.50 17.64 1.84 0.07 0.17	12.85 12.85 0.49 575.99 77.28 8.05 0.32 0.76
10H5	Fluid Bed Reactor 85E Potline 8	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS \\ PF \\ HF \end{array}$	2.94 2.94 0.11 131.50 17.64 1.84 0.07 0.17	12.85 12.85 0.49 575.99 77.28 8.05 0.32 0.76
10H6	Fluid Bed Reactor 86E Potline 8	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS \\ PF \\ HF \end{array}$	2.94 2.94 0.11 131.50 17.64 1.84 0.07 0.17	12.85 12.85 0.49 575.99 77.28 8.05 0.32 0.76
10H7	Fluid Bed Reactor 81W Potline 8	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \end{array}$	2.94 2.94 0.11	12.85 12.85 0.49

Emission	Source	Air Contaminant	Emissio	on Rates_
Point No. (1)	Name (2)	Name (3)	lb/hr	<u>TPY</u>
		CO SO ₂ COS PF HF	131.50 17.64 1.84 0.07 0.17	575.99 77.28 8.05 0.32 0.76
10H8	Fluid Bed Reactor 83W Potline 8	PM PM ₁₀ NO _x CO SO ₂ COS PF HF	2.94 2.94 0.11 131.50 17.64 1.84 0.07 0.17	12.85 12.85 0.49 575.99 77.28 8.05 0.32 0.76
10H9	Fluid Bed Reactor 83W Potline 8	PM PM ₁₀ NO _x CO SO ₂ COS PF HF	2.94 2.94 0.11 131.50 17.64 1.84 0.07 0.17	12.85 12.85 0.49 575.99 77.28 8.05 0.32 0.76
10H10	Fluid Bed Reactor 84W Potline 8	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS \\ PF \\ HF \end{array}$	2.94 2.94 0.11 131.50 17.64 1.84 0.07 0.17	12.85 12.85 0.49 575.99 77.28 8.05 0.32 0.76

Emission	Source	Air Contaminant	<u>Emissic</u>	<u>on Rates</u>
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
10H11	Fluid Bed Reactor 85W Potline 8	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS \\ PF \\ HF \end{array}$	2.94 2.94 0.11 131.50 17.64 1.84 0.07 0.17	12.85 12.85 0.49 575.99 77.28 8.05 0.32 0.76
10H12	Fluid Bed Reactor 86W Potline 8	PM PM_{10} NO_x CO SO_2 COS PF HF	2.94 2.94 0.11 131.50 17.64 1.84 0.07 0.17	12.85 12.85 0.49 575.99 77.28 8.05 0.32 0.76
10H13	Reacted Aluminum Baghouse Potline 8	PM/PM ₁₀ PF	0.07 <0.01	0.32 0.08
10H14	Reacted Aluminum Baghouse Potline 8	PM/PM ₁₀ PF	0.07 <0.01	0.32 0.08
F10H-1	Roof Monitor Potline 8	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS \\ PF \\ HF \end{array}$	9.17 5.32 0.01 6.01 0.81 0.08 2.17 1.40	40.16 23.29 0.02 26.31 3.53 0.37 9.51 6.14

Emission	Source	Air Contaminant	Emission	n Rates_
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
F10H-2	Roof Monitor Potline 8	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS \\ PF \\ HF \end{array}$	9.17 5.32 0.01 6.01 0.81 0.08 2.17 1.40	40.16 23.29 0.02 26.31 3.53 0.37 9.51 6.14
F10H-3	Roof Monitor Potline 8	PM PM ₁₀ NO _x CO SO ₂ COS PF HF	9.17 5.32 0.01 6.01 0.81 0.08 2.17 1.40	40.16 23.29 0.02 26.31 3.53 0.37 9.51 6.14
F10H-4	Roof Monitor Potline 8	$\begin{array}{c} PM \\ PM_{10} \\ NO_{x} \\ CO \\ SO_{2} \\ COS \\ PF \\ HF \end{array}$	9.17 5.32 0.01 6.01 0.81 0.08 2.17 1.40	40.16 23.29 0.02 26.31 3.53 0.37 9.51 6.14
	Potline - 1 each (5)	F ₂	-	96.39
	Potline - 2 each (5)	F ₂	-	186.35

Emission	Source	Air	Contaminant	Emission Rates	
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
	Potline - 3 each (5)		F_2	-	242.71
	Potline - 4 each (5)		F ₂	-	294.56
	Potline - 5 each (5)		F ₂	-	355.13
	Potline - 6 each (5)		F ₂	-	400.27
11A	Lime Storage Baghouse		PM/PM ₁₀	0.14	0.16
12A	Atomizer Furnace 1	NO _x CO SO ₂ VOC	PM/PM ₁₀ 3.70 1.45 0.01 0.10	0.13 7.80 6.35 0.05 0.42	0.57
12B	Atomizer Furnace 2	NO _x CO SO ₂ VOC	PM/PM ₁₀ 3.70 1.45 0.01 0.10	0.13 7.80 6.35 0.05 0.42	0.57
12C-1	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98
12C-2	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98
12C-3	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98
12C-4	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98
12C-5	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98
12C-6	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98
12C-7	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98

Emission	Source	Air	Contaminant	Emission Rates		
Point No. (1)	Name (2)		Name (3)	lb/hr	<u>TPY</u>	
12C-8	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98	
12C-9	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98	
12C-10	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98	
12C-11	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98	
12C-12	Secondary Cyclone Stack		PM/PM ₁₀	3.32	8.98	
12D	Atomizer Furnace 3	NO _x CO SO ₂ VOC	PM/PM ₁₀ 2.52 0.99 0.01 0.07	0.09 5.32 4.33 0.04 0.28	0.39	
12K1	Nozzle Preheat Oven Stack Oven 1	CO SO ₂ VOC	PM/PM ₁₀ NO _x 0.03 <0.01 <0.01	<0.01 0.07 0.13 <0.01 0.01	0.02 0.15	
12K2	Nozzle Preheat Oven Stack Oven 2	CO SO ₂ VOC	PM/PM ₁₀ NO _x 0.03 <0.01 <0.01	<0.01 0.07 0.13 <0.01 0.01	0.02 0.15	
12M	Air Preheater Stack Oven 1	CO SO ₂ VOC	PM/PM ₁₀ NO _x 0.66 0.01 0.04	0.06 1.68 2.89 0.21 0.19	0.26 3.55	
12P	Packout Fugitives (4)		PM/PM ₁₀	0.13	0.50	
12S	Inert Gas Generator Stack Inert Gas Generator No. 1	CO SO ₂	PM/PM ₁₀ NO _x 0.30 <0.01	0.03 0.76 1.30 0.01	0.12 1.60	

Emission	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)	<u> </u>	Name (3)	lb/hr	<u>TPY</u>
		VOC (0.02	0.09	
12T	Inert Gas Generator Stack Inert Gas Generator No. 2	CO (PM/PM ₁₀ NO _x 0.30 <0.01 0.02	0.03 0.76 1.30 0.01 0.09	0.12 1.60
12U	Inert Gas Generator Stack Inert Gas Generator No. 3	CO (PM/PM ₁₀ NO _x 0.30 <0.01 0.02	0.03 0.76 1.30 0.01 0.09	0.12 1.60
13B	Furnace 5	PM ₁₀ 2	PM 2.84 NO _x CO SO ₂ 0.09 F ₂ Cl ₂ HCI	5.67 12.42 3.44 1.35 0.01 0.39 3.35 1.10 3.08	24.84 7.27 5.92 0.04 1.75 0.49 13.49
13C	Furnace 6	PM ₁₀ 2	PM 2.84 NO _x CO SO ₂ 0.09 F ₂ Cl ₂ HCI	5.67 12.42 3.44 1.35 0.96 0.39 3.35 1.10 3.08	24.84 7.27 5.92 0.04 1.75 0.49 13.49
13D	Holding Furnace 7	PM ₁₀ 2	PM 2.84 NO _x	5.67 12.42 1.68	24.84 3.55

Emission	Source	Air Contaminant <u>Emission F</u>		<u>Rates</u>	
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
		VOC	CO SO ₂ 0.04 F ₂ Cl ₂ HCI	0.66 0.01 0.19 3.35 1.10 3.08	2.89 0.03 1.75 0.49 13.49
V13J	Preheat Oven 1	CO VOC	PM/PM ₁₀ NO _x 3.17 SO ₂ 0.21	0.29 8.08 13.89 0.02 0.91	1.26 17.07 0.10
V13K	Preheat Oven 2	co voc	PM/PM ₁₀ NO _x 3.17 SO ₂ 0.21	0.29 8.08 13.89 0.02 0.91	1.26 17.07 0.10
13IP1	Furnace 1 Stack	PM ₁₀ NO _x CO SO ₂ VOC	PM 0.10 2.75 1.08 0.01 0.07	0.10 0.43 5.80 4.72 0.03 0.31	0.43
13IP2	Furnace 2 Stack	F ₂ PM ₁₀ NO _x CO SO ₂ VOC F ₂	3.35 PM 0.10 2.75 1.08 0.01 0.07 3.35	1.75 0.10 0.43 5.80 4.72 0.03 0.31 1.75	0.43
2A	Coke Milling, Screening and Transfer		PM PM ₁₀	1.90 1.90	8.28 8.28

Emission	Source	Air	Contaminant	Emission	Rates
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
2C	Coke Milling, Screening and Transfer	F ₂	PM PM ₁₀ <0.01	1.02 1.02 <0.01	4.46 4.46
2E	Coke Milling, Screening and Transfer		PM PM ₁₀	0.12 0.12	0.56 0.56
2F	Coke Milling, Screening and Transfer		PM PM ₁₀	0.60 0.60	2.55 2.55
2G	Ball Mill CC30	PM ₁₀	PM 0.38	0.38 1.67	1.67
2H	Ball Mill CC60	PM ₁₀	PM 0.07	0.07 0.29	0.29
9C	Belt Conveyor 42A Baghouse	PF	PM PM ₁₀ <0.01	0.06 0.06 <0.01	0.26 0.26
9D	Transfer Point 42B Baghouse	PF	PM/PM ₁₀ <0.01	0.12 0.01	0.52
9E	Transfer Point 42C Baghouse	PF	PM/PM ₁₀ <0.01	0.12 0.01	0.52
9G2	Storage Tank 19H Baghouse	PF	PM/PM ₁₀ <0.01	0.05 0.01	0.21
9G3	Storage Tank 19W Baghouse		PM/PM ₁₀ PF	0.08 <0.01	0.35 0.01
9G3A	Day Tank 19X Baghouse		PM/PM ₁₀ PF	0.08 <0.01	0.36 0.01
9G4-1	Reacted Alumina Tank 21R Baghouse		PM/PM ₁₀ PF	0.02 <0.01	0.07 <0.01

Emission	Source	Air	Contaminant	<u>Emissio</u>	n Rates
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
					_
9G4-2	Reacted alumina Tank 21R Baghouse		PM/PM ₁₀ PF	0.04 <0.01	0.18 <0.01
9G5	Storage Tank 129E Baghous	e PF	PM/PM ₁₀ < 0.01	0.04 <0.01	0.19
9G6	Day Tank 129G Baghouse	PF	PM/PM ₁₀ <0.01	0.03 <0.01	0.15
9G7-1	Alumina Tank 129M Baghous	se PF	PM/PM ₁₀ <0.01	0.04 <0.01	0.19
9G7-2	Alumina Tank 129R Baghous	e PF	PM/PM ₁₀ <0.01	0.04 <0.01	0.16
9G8	Alumina Tank 129W Baghouse		PM/PM ₁₀ PF	0.06 <0.01	0.26 0.01
9G9	Day Tank 129X Baghouse	PF	PM/PM ₁₀ <0.01	0.04 0.01	0.19
9G10	Storage Tank 133E Baghous	e PF	PM/PM ₁₀ <0.01	0.04 <0.01	0.15
9G11	Day Tank 133G Baghouse		PM/PM ₁₀ PF	0.04 <0.01	0.19 0.01
9G12-1	Storage Tank 133M Baghous	е	PM/PM ₁₀ PF	0.04 <0.01	0.16 <0.01
9G12-2	Storage Tank 133M Baghous	е	PM/PM ₁₀ PF	0.04 <0.01	0.18 <0.01
9G13	Storage Tank 133W Baghous	se	PM/PM ₁₀ PF	0.04 <0.01	0.17 0.01
9G14	Storage Tank 133X Baghous	е	PM/PM ₁₀ PF	0.03 <0.01	0.15 0.01

Emission	Source	Air Contaminant <u>Emission Ra</u>		<u>Rates</u>
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
				_
9G15-1	Reacted Alumina Tank 133R	PM/PM ₁₀	0.04	0.17
	Baghouse	PF	<0.01	0.01
9G15-2	Reacted Alumina Tank 133R	PM/PM ₁₀	0.04	0.17
	Baghouse	PF	<0.01	0.01
9G16-1	Reacted Alumina Tank 129R	PM/PM ₁₀	0.04	0.17
	Baghouse	PF	<0.01	0.01
9G16-2	Reacted Alumina Tank 129R	PM/PM ₁₀	0.04	0.17
	Baghouse	PF	<0.01	0.01
9G17	Air Slide 9T21 Baghouse	PM/PM ₁₀	0.21	0.54
	I	PF <0.01	0.02	
9G18	Elevator Tower Line 5	PM/PM ₁₀	0.05	0.22
	Baghouse	PF	<0.01	0.01
9G19	41 Lower Conveyor Belt	PM/PM ₁₀	0.39	1.70
	Vent (4)	PF	0.01	0.04
9G20	41 Upper Conveyor Belt	PM/PM ₁₀	0.08	0.34
	Vent (4)	PF	<0.01	0.01
9G25	Potline 1 Ore Fill Station	PM/PM ₁₀	0.19	0.81
	Baghouse			
9G26	Potline 2 Ore Fill Station	PM/PM ₁₀	0.19	0.81
	Baghouse			
9G27	Potline 3 Ore Fill Station	PM/PM ₁₀	0.19	0.81
	Baghouse			
9G28	Potline 4 Ore Fill Station	PM/PM ₁₀	0.19	0.81
	Baghouse			

Emission	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
	* * * * * * * * * * * * * * * * * * * *		* *		
90REVENT	Ore Tank Vents (4)		PM	0.01	0.01
0011212111	oro rain volte (1)		PM ₁₀	<0.01	<0.01
4A	Steam Boiler No. 1		PM	0.29	1.26
7/1	Steam Boiler No. 1	PM ₁₀		1.26	1.20
		1 14110	NO _x	8.08	17.07
			CO	3.17	13.89
			SO ₂	0.02	0.10
		VOC	0.21	0.91	0.10
			0.22	0.01	
4B	Steam Boiler No. 2		PM	0.29	1.26
.5	Great Beller Her E	PM_{10}		1.26	2.20
		10	NO _x	8.08	17.07
			CO	3.17	13.89
			SO ₂	0.02	0.10
		VOC	0.21	0.91	0.10
		,,,,	0.22	0.01	
7D	Induction Furnace Baghouse	!	PM/PM ₁₀	1.33	5.81
7F	Anode Cleaning - General Baghouse		PM/PM ₁₀	0.75	3.29
7G	Anode Cleaning - General Baghouse		PM/PM ₁₀	0.75	3.29
0D	Heat Steam and Dower Bai	lor	DM	0.02	0.10
8D	Heat, Steam, and Power Boi		PM 0.02	0.02	0.10
		PM_{10}		0.10 0.63	1.33
			NO _x CO	0.03	1.08
			SO ₂	< 0.25	0.01
		VOC		0.01	0.01
8E	Heat, Steam, and Power Boil		PM	0.07	0.15
OL	rieat, Steam, and Fower Bon	PM ₁₀	0.03	0.05	0.13
		r ivi10	NO _x	0.13	2.00
			CO	0.34	1.62
			SO ₂	<0.01	0.02
		VOC		0.11	0.02
		VUC	0.02	U.II	
F131	Crucible Preheater		PM	0.03	0.10
-		PM_{10}	0.03	0.10	

Emission	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)		Name (3)	lb/hr	<u>TPY</u>
		NO _x CO SO ₂ VOC		1.33 1.09 0.01 0.08	
F15	Skim Room Storage Baghous	se	PM/PM ₁₀	0.02	0.10
F1A	Coke and Pitch Unloading	PM ₁₀	PM 0.01	0.10 0.02	0.42
F1B	Pitch Unloading	PM ₁₀	PM 0.01	0.03 0.05	0.14
F9A	Ore Unloading Station	PM ₁₀	PM <0.01	0.01 <0.01	0.01
V8C1	Potling Mixing Cathode Material Mixing		PM PM ₁₀	0.01 0.01	<0.01 <0.01
V8C2	Potling Mixing Cathode Material Mixing		PM PM ₁₀	0.01 0.01	<0.01 <0.01
FBLDG80	Lab Emissions	C ₆ H₅C	IPA CH ₃ OCH ₃	-	0.30 0.06 0.33
13FUG1	Ingot Plant Fugitives (4) Ingot Plant Roof Vents	NO _x CO SO ₂ VOC Cl ₂ HCl	PM PM ₁₀ 0.72 0.61 0.01 0.04 1.80 2.76	0.06 0.06 3.17 2.66 0.02 0.17 0.25 0.07	0.24 0.24

F11C	Lime Unloading	PM ₁₀	PM 0.01	0.01 <0.01	<0.01
9CONV41	Conveyor Belt 41 (4)	PM ₁₀	PM 0.08	0.17 0.17	0.36
9CONV42	Conveyor Belt 42 (4)	PM ₁₀	PM 0.11	0.23 0.24	0.49

- (1) Emission point identification either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources, use an 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 particulate matter, suspended in the atmosphere, including PM₁₀.
 - PM₁₀ particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.

CO - carbon monoxide HCl - hydrogen chloride PF - particulate fluoride

HF - hydrogen fluoride - gaseous fluoride

 F_2 - total fluorides IPA - isopropanol $C_6H_5CH_3$ - toluene CH_3COCH_3 - acetone

COS - carbonyl sulfide

Cl₂ - chlorine

- (4) Fugitive emissions are an estimate only.
- (5) Based on the following MACT standards:

1 potline: 3.00 pounds (lbs) Total Fluoride (F2)/ton of aluminum produced

2 potlines: 2.90 lbs F_2 /ton aluminum produced 3 potlines: 2.80 lbs F_2 /ton aluminum produced 4 potlines: 2.70 lbs F_2 /ton aluminum produced

5 potlines: $2.70 \text{ lbs } F_2/\text{ton aluminum produced}$ 6 potlines: $2.60 \text{ lbs } F_2/\text{ton aluminum produced}$

Dated September 15, 2006