EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 2356

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 Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
CSTS66	Bunker Conveyor	PM	0.046	0.031
CRH22	Crusher Baghouse	PM	0.129	0.257
PST23	Storage Hopper Baghouse	PM	0.02	0.04
PST24	Blender Conveyor Baghouse	PM	0.02	0.04
PMTH60	PM Stack Conveyor	PM	0.086	0.34
PMST61	PM Stack Conveyor	PM	0.034	0.032
BBV26	Blender Fill Baghouse	PM	0.004	0.003
SFS38	FM Stack	PM	0.069	0.27
PSE73	Stack No. 1 Conveyor	PM	0.069	0.27
PMFH77	PM Stack Conveyor	PM	0.02	0.03
MM1-29	PS1 Mix Baghouse	PM	0.004	0.015
PS1TH30	PS1 Conveyor Baghouse	PM	0.021	0.04
RM1-31	PS1 Sizer Baghouse	PM	0.004	0.017
MM2BV33	PS2 Mixer Baghouse	PM	0.004	0.015
RM2-34	PS2 Sizer Baghouse	PM	0.004	0.017

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
JSTH37	PS6 Conveyor Baghouse	PM	0.02	0.03
S5SHA72	PS5 Conveyor	PM	0.02	0.02
S5SHB78	PS5 Conveyor	PM	0.02	0.02
S5TH75	PS5 Conveyor	PM	0.029	0.04
S5RH76	PS5 Conveyor	PM	0.018	0.027
CBFA64	Bunker Fugitives	PM	0.062	0.002
CBFB67	Bunker Fugitives	PM	0.052	0.0017
MSP79	Concrete Storage Pad	PM	**	0.168
SFH44	Sizer Baghouse	PM	0.03	0.015
PPPP48	Bulk Fill Baghouse	PM	0.002	0.001
ACM2-83	Sizer Baghouse	PM	0.06	0.12
PPBGS84	Conveyor Discharge	PM	0.093	0.21
MTS39	Conveyor Baghouse	PM	0.02	0.043
ACMD46	Sizer Baghouse	PM	0.06	0.06
TPU10	Oxidizer	VOC	0.001	0.003
		PM	0.033	0.12
		NO_x	0.43	0.36
		SO_2	0.28	0.18
		CO	0.01	0.01
		SO_3	0.01	0.017

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
TPU80	Oxidizer	VOC	0.001	0.003
		PM	0.059	0.21
		NO_x	0.77	0.64
		SO_2	0.49	0.31
		CO	0.013	0.014
		SO_3	0.014	0.03
TPUBS81	R and D Preconditioner Burner	VOC	0.0005	0.002
		PM	0.0014	0.005
		NO_x	0.012	0.046
		SO_2	0.0001	0.0003
		CO	0.046	0.01
S1DC36	S1 Baghouse	PM	0.76	3.05
S1MT51	Storage Hopper Baghouse	PM	0.068	0.27
BFM1-17	Bake Furnace M-1	NO_x	1.0	1.8
		CO	1.4	6.1
		VOC	0.4	1.0
		H_2S	0.005	0.005
		SO_2	0.7	0.66
		SO_3	0.06	0.08
		COS	0.22	0.37
		PM_{10}	0.02	0.03
BFM2-18	Bake Furnace M-2	NO_x	1.0	1.8
		CO	1.4	6.1
		VOC	0.4	1.0
		H_2S	0.005	0.005
		SO_2	0.7	0.66
		SO_3	0.06	0.08
		COS	0.22	0.37
		PM_{10}	0.02	0.03

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
BFM3-19	Bake Furnace M-3	NO_x	1.0	1.8
		CO	1.4	6.1
		VOC	0.4	1.0
		H_2S	0.005	0.005
		SO_2	0.7	0.66
		SO_3	0.06	0.08
		COS	0.22	0.37
		PM_{10}	0.02	0.03
BFM4-20	Bake Furnace M-4	NO_x	1.3	2.4
		CO	1.9	8.1
		VOC	0.5	1.4
		H_2S	0.007	0.007
		SO_2	0.9	0.88
		SO_3	0.08	0.10
		COS	0.29	0.49
		PM_{10}	0.025	0.04
BFS1-21	Bake Furnace S-1	NO_x	0.32	0.56
		CO	0.37	0.63
		VOC	0.017	0.03
		H_2S	0.00003	0.0013
		SO_2	0.14	0.21
		SO_3	0.042	0.072
		COS	0.001	0.0026
		PM_{10}	0.075	0.12
BFOX2-63	Bake Furnace S-7 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00013	0.0013
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.0027
		PM_{10}	0.12	0.19

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
BFOX3-74	Bake Furnace S-5 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00005	0.002
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.004
		PM_{10}	0.12	0.19
BGDC4	"A" Graphitizer Baghouse	PM	0.257	0.096
BGTVS5	"A" Graphitizer Hopper Baghouse	PM	0.017	0.001
GSS3	"A" Graphitizer Scrubber	H_2S	0.11	0.02
HGTDC2	"B" Graphitizer Baghouse	PM	0.257	0.129
HGIS6	"B" Graphitizer Oxidizer	PM	3.8	8.4
		SO_2	3.1	6.9
		NO_x	0.02	0.07
		VOC	0.001	0.003
		CO	0.004	0.014
		$FeSO_4$	0.033	0.011
		SO_3	2.1	3.9
		H_2S	0.029	0.045
CGRAPH59	"C" Graphitizer Oxidizer	PM	5.0	11.0
		SO_2	4.0	9.0
		NO_x	0.04	0.17
		VOC	0.002	0.006
		CO	0.009	0.04
		$FeSO_4$	0.004	0.014
		SO_3	2.7	5.1
		H_2S	0.029	0.045

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Point No. (1)	Source Name (2)	AIR CONTAMINANTS DATA Air Contaminant Name (3)	Emission Rates * lb/hr	 TPY
DGRAPH85	"D" Graphitizer Oxidizer/ Scrubber/Baghouse	PM	0.21	0.44
		SO_2	0.41	0.90
		NO_x	0.08	0.34
		VOC	0.004	0.012
		CO	0.018	0.08
		$FeSO_4$	0.008	0.028
		SO_3	0.27	0.51
		H_2S	0.058	0.09
DGDC86	"D" Graphitizer Baghouse (Local area dust collector)	PM	0.86	0.43
SPC12	SIC, SP, and GC Processes Scrubber	Chlorine	0.14	0.28
		HCl	0.033	0.043
BGVH53	BG Hood	VOC	0.02	0.01
VPE54	E2, BG, and GC Vacuum Pump	VOC	3.2	0.64
BGDO56	BG Oven	VOC	0.5	1.0
E2VH55	E2 Hood	VOC	0.2	0.01
GCVH68	GC Hood	HCl	0.007	0.001
GCDH71	GC Air Dry	VOC	0.50	0.06
GCDO70	GC Oven	VOC	0.96	0.69
GC69	GC Furnace	VOC	0.4	0.012

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Point No. (1)	Source Name (2)	AIR CONTAMINANTS DATA Air Contaminant Name (3)	Emission Rates * lb/hr	 TPY
HBF8	Harper Furnace Oxidizer	P_2O_5	2.5	0.42
		HCl	5.1	0.87
		NO_x	0.12	0.16
		SO_2	0.001	0.001
		CO	0.02	0.03
		VOC	0.01	0.01
		PM	0.01	0.01
SF9	Stewart Furnace	VOC	0.006	0.003
		NO_x	0.13	0.48
		SO_2	0.0008	0.0029
		CO	0.027	0.1
		PM	0.004	0.009
FL7	"A" Graphitizer Vent	VOC	0.64	0.46
		NO_x	0.10	0.07
		SO_2	0.001	0.004
		PM	0.01	0.004
		CO	0.02	0.014
KILNS82	SC Kilns	PM	0.08	0.31
JSDC62	East Baghouse	PM	1.5	6.2
FESDC35	South Baghouse	PM	0.64	2.6
PPNDC43	PP North Baghouse	PM	0.21	0.21
PPWDC47	PP West Baghouse	PM	0.29	0.29
PPSDC45	PP South Baghouse	PM	0.26	0.26

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
BFS2-90	Bake Furnace S-2 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00005	0.0013
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.0027
		PM_{10}	0.12	0.19
BFS3-91	Bake Furnace S-3 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00005	0.0013
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.0027
		PM_{10}	0.12	0.19
BFS6-88	Bake Furnace S-6 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00013	0.0013
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.0027
		PM_{10}	0.12	0.19
BFS8-89	Bake Furnace S-8 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00013	0.0013
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.0027
		PM_{10}	0.12	0.19

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
BFS4-87	Bake Furnace S-4 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00005	0.002
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.004
		PM_{10}	0.12	0.19
BFS9-92	Bake Furnace S-9 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00013	0.002
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.004
		PM_{10}	0.12	0.19
BFS10-93	Bake Furnace S-10 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00005	0.002
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.004
		PM_{10}	0.12	0.19
BFS11-94	Bake Furnace S-11 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00005	0.002
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.004
		PM_{10}	0.12	0.19

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
BFS12-95	Bake Furnace S-12 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00005	0.002
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.004
		PM_{10}	0.12	0.19
BFS13-96	Bake Furnace S-13 Oxidizer	NO_x	0.52	0.9
		CO	0.59	1.02
		VOC	0.027	0.04
		H_2S	0.00005	0.002
		SO_2	0.22	0.34
		SO_3	0.067	0.12
		COS	0.001	0.004
		PM_{10}	0.12	0.19
SIC98	SIC Process Scrubber	PM_{10}	0.072	0.09
		HCl	0.35	0.44
SICF99	Exhaust System Cleaning Fugitives	HCl	1.0	0.13
SICVH100	SIC Cleaning Vent Hood	HCl	0.02	0.02
		HNO_3	0.003	0.0032
S5SHC101	PS5 Conveyor	PM	0.021	0.02
S5SHD102	PS5 Conveyor	PM	0.021	0.02
S5SHE103	PS5 Conveyor	PM	0.021	0.02

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
S5SHF104	PS5 Conveyor	PM	0.021	0.02
S5SHG105	PS5 Conveyor	PM	0.021	0.02
S5SHH106	PS5 Conveyor	PM	0.021	0.02
PS6JM108	Product Stack No. 6 Conveyor	PM	0.171	0.257
CSTS107	Bunker Conveyor	PM	0.035	0.040
FMA109	FMA Furnace	NO_x	0.047	0.042
		CO 0.011	0.010	
		VOC 0.0009	0.0009	
		SO_2 0.0022	0.0019	
		SO_3 0.015	0.013	
		PM_{10} 0.023	0.021	

(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, suspended in the atmosphere, including PM_{10}
PM_{10} - particulate matter (PM) equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
VOC - volatile organic compounds as defined in 30 Texas Administrative Code Section 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
CO - carbon monoxide
SO_3 - sulfur trioxide
H_2S - hydrogen sulfide
COS - carbonyl sulfide
$FeSO_4$ - ferrous sulfate
P_2O_5 - phosphorus pentoxide
HCl - hydrogen chloride
HNO_3 - nitric acid

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

24 Hrs/day 7 Days/week 52 Weeks/year or 8,760 Hrs/year

** Stockpile

Dated May 16, 2000