

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 16786 and N038

The total emissions of air contaminants from any of the sources listed on this table shall not exceed the stated values.

## AIR CONTAMINANTS DATA

Emission Point	Source Name	Air Contaminant Name (1)	Emission Rates	
			lb/hr	TPY (2)
2B, 19A, 19B, 26C, 32A, 32C, 32D, 36, 53A, 53B, 60, 62, S28, 217, 225, 204, 205, 206, 207, and SBGEN	South Wafer Fab	VOC	10.07 (4)	21.33 (4)
		VOC	41.07 (5)	
		Exempt VOC	8.45 (4)	39.03 (4)
		Exempt VOC	9.90 (5)	
		PM	2.20	5.63
		GIC	7.73	22.08
		CO	0.20	0.88
		NO <sub>x</sub> 0.03	0.13	
		VOC (3)	0.01	<0.01
		PM (3)	0.09	0.35
		NO <sub>x</sub> (3)	5.94	26.00
		CO (3)	4.83	21.14
		SO <sub>2</sub> (3)	0.05	0.20
101 and 103	Dallas Support Building	VOC	0.36	0.93
		Exempt VOC	0.25	1.10
		GIC	0.01	0.01
11 and 52	Facilities Building	VOC	0.30	1.24
		Exempt VOC	0.03	0.13
		GIC	0.11	0.23
74	Time Building	VOC	1.06	2.30
		GIC	0.15	0.34

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Emission Point	Source Name	Air Contaminant Name (1)	Emission Rates	
			lb/hr	TPY (2)
238, 239, D5NAM, D5NAM2, 40E1, 40E2, 40E3, 40E4, DM5NGEN1, and DM5NGEN2	DMOS5N Wafer Fab	VOC	4.01 (4)	16.96 (4)
		VOC	35.65 (5)	
		Exempt VOC	10.44 (4)	42.63 (4)
		Exempt VOC	13.49 (5)	
		PM	0.94	3.04
		GIC	4.31	17.04
		CO	0.38	1.68
		NO <sub>x</sub> 0.05	0.22	
		VOC (3)	<0.01	<0.01
		PM (3)	0.04	0.14
		NO <sub>x</sub> (3)	2.32	10.14
		CO (3)	2.77	12.11
		SO <sub>2</sub> (3)	0.01	0.02
99, CUP1, CUP2, CUP3, and CUP4	Central Utility Plant	VOC	1.00	4.38
		Exempt VOC	4.95	13.02
		GIC	0.01	<0.01
		VOC (3)	1.93 (6)	8.21 (7)
		PM (3)	7.64 (6)	12.88 (7)
		NO <sub>x</sub> (3)	41.00 (6)	104.05 (7)
		CO (3)	12.69 (6)	55.53 (7)
		SO <sub>2</sub> (3)	177.49 (6)	31.96 (7)
213	Solvent Building	VOC	1.75	6.86
		Exempt VOC	1.00	2.00
		GIC <0.01	<0.01	

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Emission Point	Source Name	Air Contaminant Name (1)	Emission Rates	
			lb/hr	TPY (2)
208, 209, 210, 218, 219, 220, DM5SGEN1, DM5SGEN2, and DM5SGEN3	DMOS5S Wafer Fab	VOC	5.80 (4)	20.96 (4)
		VOC	35.80 (5)	
		Exempt VOC	12.45 (4)	56.93 (4)
		Exempt VOC	15.50 (5)	
		PM	0.47	2.06
		GIC	4.54	17.58
		CO	0.38	1.68
		NO <sub>x</sub> 0.05	0.22	
		VOC (3)	<0.01	<0.01
		PM (3)	0.09	0.35
		NO <sub>x</sub> (3)	7.55	33.06
		CO (3)	6.22	27.24
		SO <sub>2</sub> (3)	0.01	0.02
221A, 221B, 221C, 221D, 222, 223, 224, and DM6GEN1	DMOS6 Wafer Fab	VOC	4.87 (4)	20.38 (4)
		VOC	35.20 (8)	
		Exempt VOC	10.45 (4)	45.76 (4)
		Exempt VOC	12.95 (8)	
		PM 0.47	2.07	
		GIC	6.58	23.11
		CO	0.38	1.68
		NO <sub>x</sub> 0.05	0.22	
		VOC (3)	<0.01	<0.01
		PM (3)	0.05	0.17
		NO <sub>x</sub> (3)	1.85	8.12
		CO (3)	2.33	10.21
		SO <sub>2</sub> (3)	0.01	0.01

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Emission Point	Source Name	Air Contaminant Name (1)	Emission Rates	
			lb/hr	TPY (2)
226, 227A, 227B, 234, and KCGEN	Kilby Wafer Fab	VOC	2.92 (4)	11.90 (4)
		VOC	14.28 (8)	
		Exempt VOC	9.36 (4)	35.22 (4)
		Exempt VOC	13.69 (8)	
		PM 0.73	2.00	
		GIC 3.26	13.55	
		CO	0.20	0.88
		NO <sub>x</sub> 0.03	0.13	
		VOC (3)	<0.01	<0.01
		PM (3)	0.08	0.26
		NO <sub>x</sub> (3)	2.07	9.04
		CO (3)	2.69	11.79
		SO <sub>2</sub> (3)	0.01	0.03
228A, 228B, 228C, 229, 229A, 230, SCGEN1, SCGEN2, and SCGEN3	SC Wafer Fab	VOC	3.10 (4)	11.67 (4)
		VOC	15.06 (5)	
		Exempt VOC	0.46 (4)	2.00 (4)
		Exempt VOC	4.79 (5)	
		GIC	0.83	3.52
		VOC (3)	0.01	0.04
		PM (3)	0.02	0.06
		NO <sub>x</sub> (3)	0.68	3.00
		CO (3)	0.58	2.52
		SO <sub>2</sub> (3)	<0.01	<0.01
S28, 40E1, 40E2, 40E3, 40E4, 210, 218, 221A, 221B, 221C, 221D, 227A, 227B, 228A, 228B, and 228C	South, DMOS5N, DMOS5S, DMOS6, Kilby, and SC Wafer Fabs	VOC		22.00 (8)
		Exempt VOC		1.60 (8)
109, 110, 41200, 72111,	15 Boilers (Other than in	VOC (3)	0.85 (6)	3.64 (9)

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Emission Point	Source Name	Air Contaminant Name (1)	Emission Rates	
			lb/hr	TPY (2)
156653, 182206, 182207, 190311, 190312, 190313, 190314, 190315, 190316, 190317, and 202991	Central Utility Plant)	PM (3)	3.45 (6)	5.21 (9)
		NO <sub>x</sub> (3)	22.01 (6)	39.57 (9)
		CO (3)	12.80 (6)	55.47 (9)
		SO <sub>2</sub> (3)	46.63 (6)	4.15 (9)
To Be Assigned	Additional Thermal Oxidizer	VOC (3)	0.02	0.06
		PM (3)	0.02	0.01
		NO <sub>x</sub> (3)	0.87	3.81
		CO (3)	1.09	4.79
		SO <sub>2</sub> (3)	0.01	0.02
Attachment 1	55 Fuel and Process Material Storage Tanks	VOC	3.06	5.65
		Exempt VOC	0.35	0.44
No Designations	Degreasers, Inorganic Storage Tanks, Cooling Towers, Wastewater Neutralization Systems, Labs, and Cafeterias	VOC	0.51	0.76
		Exempt VOC	0.10	0.01
		GIC	0.01	0.01
		PM	0.03	0.15
All applicable to Sources	South, DMOS5N, DMOS5S, DMOS6, Kilby and SC Wafer Fabs; Dallas Support, Facilities and Time Buildings; and all other TI sources on the site	Single HAP		<10.00
		Multiple HAP		<25.00

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- (1) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1 (30 TAC § 101.1).  
Exempt VOC - exempt solvents as defined in 30 TAC § 101.1.  
PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub>  
PM<sub>10</sub> - particulate matter 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.  
GIC - gaseous inorganic compounds including acids and caustics  
CO - carbon monoxide  
NO<sub>x</sub> - nitrogen oxides  
SO<sub>2</sub> - sulfur dioxide  
HAP - hazardous air pollutants as identified in Title 40 Code of Federal Regulations Part 63, Subpart C.
- (2) Rate is for a rolling 12 consecutive months.
- (3) Combustion product.
- (4) Rate during normal operation with thermal oxidizer(s).
- (5) Rate during scheduled maintenance on thermal oxidizer(s) or gas curtailments.
- (6) Rate from burning No. 2 fuel oil.
- (7) Rate from burning natural gas and No. 2 fuel oil with the burning of No. 2 fuel oil limited to 360 hours per year (hrs/yr) per four boilers.
- (8) Rate during scheduled maintenance on thermal oxidizers, gas curtailments, and switching to backup thermal oxidizers.
- (9) Rate from burning natural gas and No. 2 fuel oil. Burning No. 2 fuel oil is limited as follows:

<u>Boiler Location</u>	<u>EPN</u>	<u>Hrs/Yr Limit</u>	
South	109	168	
DMOS6	190315		168
DMOS6	190316		168
DMOS6	190317		168
DMOS6	190311, 190312, 190313, and 190314	504 combined	

Dated October 13, 2006