

## Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 16786 and N038

This table lists the maximum allowable emission rates and all sources of air contaminants 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.	Source Name	Air Contaminant Name (1)	Emission Rates	
			lbs/hour	TPY (2)
2B, 19A, 19B, 26C, 32A, 32C, 32D, 36, 53A, 53B, 60, 62, S28, 217, 225, 204, 205, 206, 207, SBGEN, 226, 227B, 234, and KCGEN	South and Kilby Wafer Fab	VOC	13.03 (4)	33.40 (4)
		VOC	41.07 (5)	
		VOC	14.28 (8)	
		Exempt VOC	18.65 (4)	77.90 (4)
		Exempt VOC	9.90 (5)	
		Exempt VOC	13.69 (8)	
		PM	2.93	7.63
		PM <sub>10</sub>	2.93	7.63
		PM <sub>2.5</sub>	2.93	7.63
		GIC	10.99	35.63
		CO	0.40	1.76
		NO <sub>x</sub>	0.06	0.26
		VOC (3)	0.01	0.01
		PM (3)	0.13	0.44
		PM <sub>10</sub> (3)	0.13	0.44
		PM <sub>2.5</sub> (3)	0.13	0.44
		NO <sub>x</sub> (3)	6.96	30.45
		CO (3)	6.06	26.54
		SO <sub>2</sub> (3)	0.06	0.22

Emission Point No.	Source Name	Air Contaminant Name (1)	Emission Rates
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Project Numbers: 197998 and 197999

## Emission Sources - Maximum Allowable Emission Rates

			lbs/hour	TPY (2)
238,239, D5NAM, D5NAM2, 40E1, 40E2, 40E3, 40E4, DM5NGEN1, DM5NGEN2, 208, 209, 210, 218, 219, 220, DM5SGEN1, DM5SGEN2, DM5SGEN3, and DM5SGEN4	DMOS5 Wafer Fab	VOC	9.81 (4)	37.92 (4)
		VOC	71.45 (5)	
		Exempt VOC	23.91 (4)	104.04 (4)
		Exempt VOC	30.01 (5)	
		PM	1.41	5.10
		PM <sub>10</sub>	1.41	5.10
		PM <sub>2.5</sub>	1.41	5.10
		GIC	8.85	34.63
		CO	0.76	3.36
		NO <sub>x</sub>	0.10	0.44
		VOC (3)	0.01	0.01
		PM (3)	0.13	0.49
		PM <sub>10</sub> (3)	0.13	0.49
		PM <sub>2.5</sub> (3)	0.13	0.49
		NO <sub>x</sub> (3)	9.87	43.20
		CO (3)	8.99	39.35
		SO <sub>2</sub> (3)	0.02	0.04

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## Emission Sources - Maximum Allowable Emission Rates

			lbs/hour	TPY (2)
221A, 221B, 221C, 221D, 222, 223, 224, 251A, 251B, 251C, and DM6GEN1	DMOS6 Wafer Fab	VOC	4.98 (4)	20.88(4)
		VOC	35.20 (8)	
		Exempt VOC	10.51 (4)	46.01 (4)
		Exempt VOC	12.95 (8)	
		PM	0.47	2.07
		PM <sub>10</sub>	0.47	2.07
		PM <sub>2.5</sub>	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
		PM <sub>10</sub> (3)	0.05	0.17
		PM <sub>2.5</sub> (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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			lbs/hour	TPY (2)
228A, 228B, 228C, 229, 229A, 230, SCGEN1, SCGEN2, and SCGEN3	SC Wafer Fab	VOC	3.23 (4)	11.91 (4)
		VOC	15.06 (5)	
		Exempt VOC	0.47 (4)	2.02 (4)
		Exempt VOC	4.79 (5)	
		GIC	0.86	3.55
		VOC (3)	0.01	0.04
		PM (3)	0.02	0.06
		PM <sub>10</sub> (3)	0.02	0.06
		PM <sub>2.5</sub> (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, 227B, 228A, 228B, and 228C	South and Kilby, DMOS5, DMOS6, and SC Wafer Fabs	VOC		22.00 (8)
		Exempt VOC		1.60 (8)
101 and 103	Dallas Support Building	VOC	0.36	0.94
		Exempt VOC	0.42	1.85
		GIC	0.01	0.02
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	2.31
		GIC	0.15	0.34

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Emission Sources - Maximum Allowable Emission Rates

			lbs/hour	TPY (2)
213	Solvent Building	VOC	1.75	6.86
		Exempt VOC	1.00	2.00
		GIC	<0.01	<0.01
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)	1.71 (6)	7.25 (7)
		PM (3)	7.26 (6)	11.21 (7)
		PM <sub>10</sub> (3)	7.26 (6)	11.21 (7)
		PM <sub>2.5</sub> (3)	7.26 (6)	11.21 (7)
		NO <sub>x</sub> (3)	36.98 (6)	86.42 (7)
		CO (3)	11.71 (6)	51.24 (7)
		SO <sub>2</sub> (3)	177.48 (6)	31.94 (7)
41200, 156653, 182206, 182207, 190311, 190312, 190313, 190314, 190315, 190316, 190317, and 202991	12 Boilers (Other than in Central Utility Plant)	VOC (3)	0.76 (6)	3.25 (9)
		PM (3)	3.24 (6)	4.66 (9)
		PM <sub>10</sub> (3)	3.24 (6)	4.66 (9)
		PM <sub>2.5</sub> (3)	3.24 (6)	4.66 (9)
		NO <sub>x</sub> (3)	19.70 (6)	32.26 (9)
		CO (3)	11.49 (6)	49.51 (6)
		SO <sub>2</sub> (3)	44.76 (6)	3.95 (9)
Attachment 1	69 Fuel and Process Material Storage Tanks	VOC	3.21	6.03
		Exempt VOC	0.35	0.44
		GIC	<0.01	0.04

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Emission Sources - Maximum Allowable Emission Rates

			lbs/hour	TPY (2)
Site	Degreasers, Inorganics Storage Tanks, Cooling Towers, Wastewater Neutralization Systems, Labs, Cafeterias, and Remediation	VOC	0.70	1.55
		Exempt VOC	0.13	0.26
		GIC	0.01	0.01
		PM	0.03	0.15
		PM <sub>10</sub>	0.03	0.15
		PM <sub>2.5</sub>	0.03	0.15
All TI Emission Points at the Site	All TI Sources at the Site	Single HAP		<10.00
		All HAP		<25.00

- (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> and PM<sub>2.5</sub>  
PM<sub>10</sub> - particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>  
PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter  
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 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.

Date: December 15, 2014

**Attachment 1 to**  
**Emission Sources - Maximum Allowable Emission Rates**

Permit Numbers 16786 and N038

Storage Tank Emission Points

75	T51VOC	T85VOC	T121VOC
76	T52VOC	T86VOC	T122VOC
T53	T54VOC	T87VOC	T123VOC
T1VOC	T55VOC	T88VOC	T100ING
T2VOC	T58VOC	T89VOC	T101ING
T3VOC	T61VOC	T90VOC	D5SST1
T5VOC	T62VOC	T91VOC	D5SST2
T23VOC	T63VOC	T92VOC	D5SST4
T24VOC	T64VOC	T93VOC	D5NST1
T25VOC	T74VOC	T100VOC	D6ST1
T39VOC	T77VOC	T101VOC	D6ST2
T40VOC	T78VOC	T102VOC	KCST1
T41VOC	T79VOC	T103VOC	SBST1
T42VOC	T80VOC	T110VOC	SBST2
T47VOC	T81VOC	T111VOC	SCST1
T48VOC	T82VOC	T112VOC	
T49VOC	T83VOC	T113VOC	
T50VOC	T84VOC	T114VOC	

Date: December 15, 2014