

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 16786

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

Source Grouping No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *,**	
			lbs/hr	TPY
1	South (South Building VOC Stacks)	VOC	25.16	49.25
		Non-VOC	10.70	19.01
		Acid/Base	0.39	0.88
		Reactant Gas	0.08	0.16
		PM	0.40	1.00
		POC	<0.01	<0.01
		IOFC	0.03	0.03
2	S28AB (South Building Scrubbers)	VOC	1.11	3.89
		Non-VOC	0.16	0.53
		Acid/Base	0.71	1.89
		Reactant Gas	0.58	1.29
		PM	1.00	3.94
		POC	<0.01	0.01
		IOFC	0.31	0.26
3	S28C (South Building Oxidizer)	VOC	7.51	14.70
		Non-VOC	6.08	10.80
		Acid/Base	0.29	0.64
		Reactant Gas	0.01	0.01
		PM	0.73	1.60
		POC	11.98	52.73
		IOFC	0.01	0.01
4	S204207 (South Building Scrubber)	VOC	0.35	1.23
		Non-VOC	0.03	0.08
		Acid/Base	1.21	4.63
		Reactant Gas	0.08	0.16
		PM	1.44	5.00
		POC	0.31	0.54

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *,**</u>	
			lbs/hr	TPY
		IOFC	0.33	0.28
5	S109110 (South Building Boilers)	Non-VOC	1.11	0.18
		PM	0.06	0.14
		POC	2.84	4.10
6	S217 (South Building Scrubbers)	VOC	2.99	6.41
		Non-VOC	1.14	2.20
		Acid/Base	0.83	2.00
		Reactant Gas	0.18	0.40
		PM	1.81	4.85
		POC	<0.01	<0.01
		IOFC	0.06	0.05
7	Floyd (Floyd Building VOC and Acid Stacks)	VOC	1.33	2.61
		Non-VOC	4.19	7.45
		Acid/Base	<0.01	0.01
		Reactant Gas	0.01	0.01
		PM	0.01	0.03
		POC	<0.01	<0.01
8	Security (Security Building VOC and Acid Stacks)	VOC	1.19	2.33
		Non-VOC	1.30	2.31
		Acid/Base	0.18	0.39
		IOFC	0.03	0.03
9	Time (Cooling Water Chiller)	VOC	1.24	2.43
		Non-VOC	11.25	20.00
		Acid/Base	0.30	0.68
		PM	<0.01	<0.01
		POC	0.31	0.68
10	Reswest (Research West Building VOC and Acid Stacks)	VOC	7.88	15.41
		Non-VOC	5.60	9.95
		Acid/Base	1.34	2.98
		Reactant Gas	0.04	0.09
		PM	0.28	0.60

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			lbs/hr	TPY
		POC	<0.01	<0.01
		IOFC	0.11	0.11
11	RW96 (Research West VOC Stacks)	VOC	2.20	8.48
		Non-VOC	0.38	1.30
		Acid/Base	<0.01	0.01
		Reactant Gas	0.01	0.01
		PM	0.01	0.03

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *,**</u>	
			lbs/hr	TPY
12	Chem (Chemical Building Acid and Base Stacks)	VOC	0.13	0.24
		Non-VOC	<0.01	0.01
		Acid/Base	2.14	4.76
		PM	0.01	0.03
		POC	<0.01	<0.01
		IOFC	0.15	0.13
13	North (North Building Acid and Base Stacks)	VOC	0.50	0.98
		Non-VOC	0.24	0.42
		Acid/Base	0.26	0.58
		Reactant Gas	<0.01	0.01
		PM	0.01	0.04
		POC	0.07	0.16
		IOFC	0.01	0.01
14	NorthFug (North Building VOC Stacks)	VOC	4.78	9.35
		Non-VOC	2.71	4.82
		Acid/Base	0.05	0.11
		IOFC	<0.01	<0.01
15	N215216 (North Building VOC Stacks)	VOC	7.35	14.38
		Non-VOC	5.46	9.72
		Acid/Base	0.05	0.11
		IOFC	<0.01	<0.01
16	East (DMOS IV Acid Stacks)	Acid/Base	1.19	2.64
		Reactant Gas	0.29	0.65
		PM	0.54	1.19
		POC	<0.01	<0.01
		IOFC	0.75	0.63
17	East51E (DMOS IV Chemical Dock)	emergency release only		
18	S/C (Semiconductor Building VOC and Acid Stacks)	VOC	11.40	22.30
		Non-VOC	8.16	14.52
		Acid/Base	2.13	4.73

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *,**</u>		
			lbs/hr	TPY	
		Reactant Gas	0.06		0.14
		PM	1.25		2.76
		POC	0.02		0.03
		IOFC	0.08		0.05

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *,**	
			lbs/hr	TPY
19	Reseast (Research East Building VOC and Acid Stacks)	VOC	2.35	4.60
		Non-VOC	0.56	1.00
		Acid/Base	0.46	1.04
		Reactant Gas	0.65	1.44
		PM	0.01	0.03
		POC	0.20	0.45
		IOFC	0.10	0.09
20	Cup (Central Utility Boiler Building boilers and Chillers)	VOC	8.84	17.27
		Non-VOC	33.14	59.91
		Acid/Base	0.01	0.01
		PM	0.84	1.86
		POC	130.58	348.40
21	Cup40E (Central Utility Boiler Building Oxidizer for DMOS IV)	emergency release only		
22	Solvent (Solvent Building VOC Stacks)	VOC	11.51	22.51
		Non-VOC	4.36	7.76
		Acid/Base	0.01	0.01
		PM	0.01	0.04
		POC	<0.01	<0.01
23	2E208209 (DP1 Building Acid and Base Scrubbers)	VOC	0.06	0.14
		Non-VOC	0.04	0.09
		Acid/Base	0.49	1.20
		Reactant Gas	0.01	0.03
		POC	<0.01	0.01
		IOFC	0.38	0.30
24	SE210 (DP1 Building Oxidizer)	VOC	4.91	12.11
		Non-VOC	0.25	0.44
		Acid/Base	0.40	0.89
		Reactant Gas	0.01	0.01
		PM	0.14	0.31
		POC	12.95	54.56
		IOFC	0.18	0.18

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *,**</u>	
			lbs/hr	TPY
25	SL200 (Floyd Road North Building Oxidizer)	VOC	0.21	0.81
		Acid/Base	0.01	0.05
		POC	2.89	12.63

26	SL201202 (Floyd Road North Building Acid and PM)	VOC	0.01	0.01
		Acid/Base	1.06	4.59
		Reactant Gas	0.03	0.03
		PM	0.51	2.23
		POC	3.08	6.00
		IOFC	0.33	0.33
27	2D218 (DMOS V Building Oxidizer)	VOC	2.24	8.65
		Acid/Base	0.03	0.09
		POC	7.36	32.25
28	2D219220 (DMOS V Building Scrubbers)	VOC	0.04	0.17
		Non-VOC	<0.01	0.01
		Acid/Base	0.08	0.35
		IOFC	0.01	0.01

(1) These are groupings of similar stacks as listed in the source grouping parameter table listed in attachment 1. The emissions are the sum of the stacks in each source grouping.

(2) Specific point source name. For fugitive sources use area name or fugitive source name.

- (3)
- VOC - volatile organic compounds as defined in General Rule 101.1
  - Non-VOC - compounds specifically excluded from the definition of volatile organic compounds as defined in General Rule 101.1
  - PM - particulate matter
  - POC - products of combustion including NOx, CO, SO2 and PM
  - Reactant - silicon and hydride dopants, and molecules of compounds of Gases group IIIb, IVb, and VB elements
  - Acid/Base - organic or inorganic polar acids or bases
  - IOFC - inorganic fluoride compounds

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

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



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\*\* These allowable emission rates represent the potential increases allowed under Special Condition No. 4. If Special Condition No. 4 is not used, then the allowable emission rates are those listed in the revised permit application dated September 20, 1994.

Dated \_\_\_\_\_