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LONG-TERM BUILDING AIR MEASUREMENTS FOR VOLATILE ORGANIC COMPOUNDS INCLUDING ALDEHYDES AT A CALIFORNIA FIVE-BUILDING SUSTAINABLE OFFICE COMPLEX

VOLUME 2 of 2

Final Report Submitted to:

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Through

The Public Health Institute
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Preface

This study was conducted by the California Department of Health Services, beginning in 2003 and ending in June 2004. The research was conducted by the Indoor Air Quality Section of the Department's Environmental Health Laboratory Branch with the goal of expanding scientific investigation data for pre- and post-occupancy IAQ components. This study and accompanying data outline the role of IAQ and its relationship to the sustainable construction practices implemented at the Capitol Area East End Complex (CAEEC).

The study was supported, in part, through funding from the Indoor Environments Division, Office of Radiation and Indoor Air, United States Environmental Protection Agency, Contract Number 3W-2265-NANX, under the auspices of the Public Health Institute. This Final report is submitted in fulfillment of the contract requirements. Substantial in-kind support was provided by the Department of Health Services.

The report consists of two volumes: Volume 1 contains the study description, results, lessons learned, supporting tables and figures, whereas, Volume 2 contains detailed data and graphs for all sampled locations.

Disclaimer

This study was not requested or funded by the Department of General Services (DGS). As such, DGS is not responsible for any of the test results or interpretations of the scientific data associated with this study.

The CAEEC was constructed under the requirements of a detailed commissioning process that also included building material emissions testing and measurements of the chemicals in the indoor environment after completion of the construction. This information was submitted to California Department of Health Services (CDHS) and California Department of Education, the primary tenants of the CAEEC.

All sample results and discussions or interpretations of the data associated with this research study are not necessarily related to operations and maintenance of the CAEEC facilities by DGS.

Occupants of the CAEEC should contact their employer's Health and Safety Officer with any questions associated with this research study.

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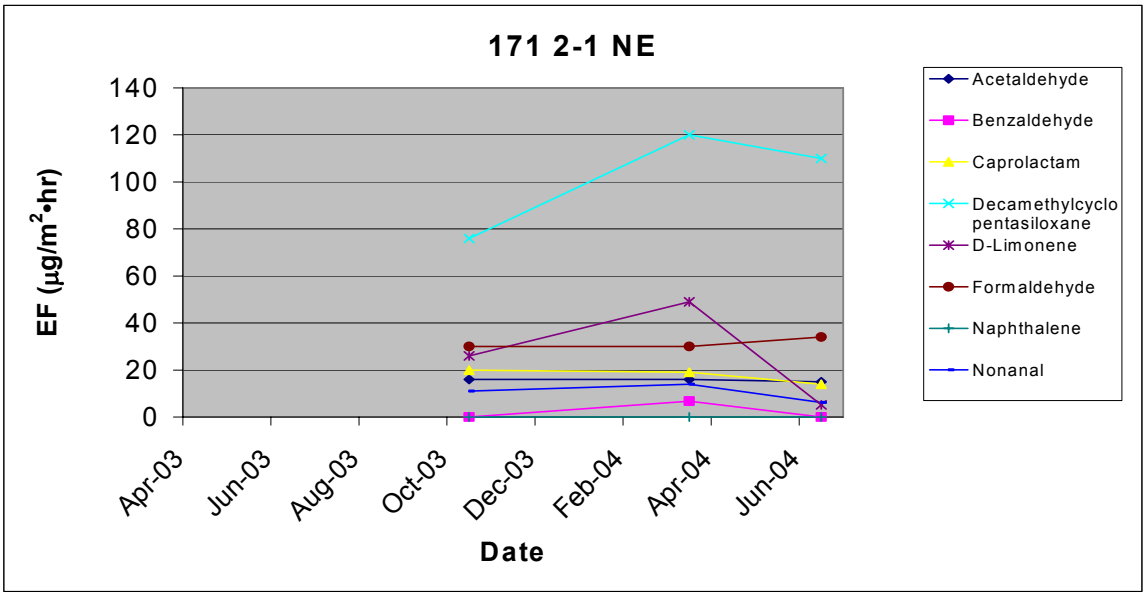
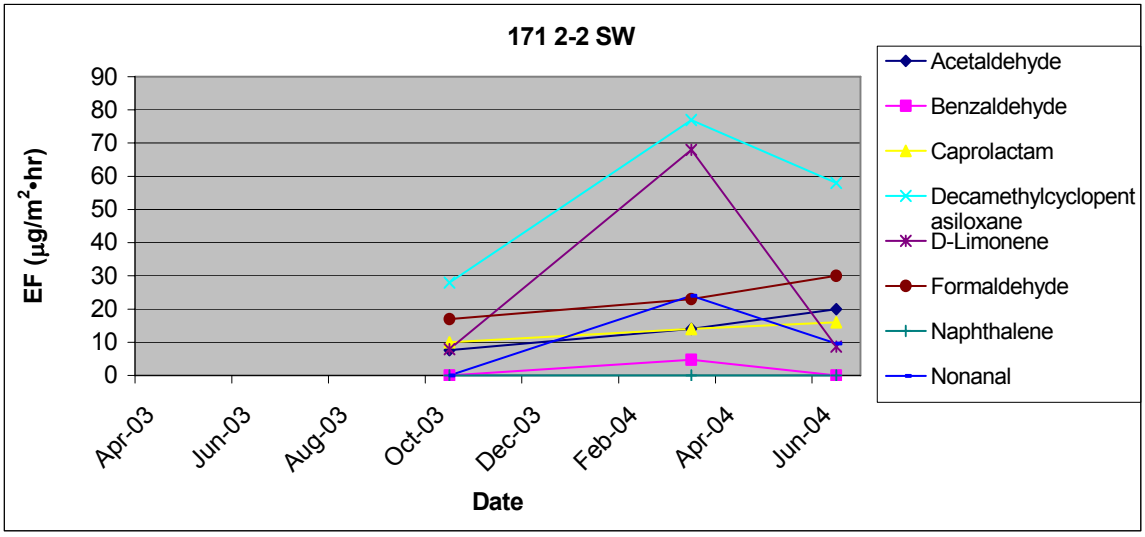
	Pre-occupancy[3]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[4]	0.57	0.57	0.5
	Concentration (µg/m^3)			
Acetaldehyde	2.7	9.8	6.9	11
Benzaldehyde		< 3	3	< 2
Caprolactam		8.7	8.2	6.9
Decamethylcyclopentasiloxane		34	54	55
D-Limonene		11	21	2.6
Formaldehyde	16	15	15	22
Naphthalene		< 1	< 0.9	< 0.9
Nonanal	<2.9	5	5.9	3.1
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnotes below	16	16	15
Benzaldehyde		< 6	6.8	< 5
Caprolactam		20	19	14
Decamethylcyclopentasiloxane		76	120	110
D-Limonene		26	49	5.2
Formaldehyde		30	30	34
Naphthalene		< 2	< 2	< 2
Nonanal		11	14	6.2



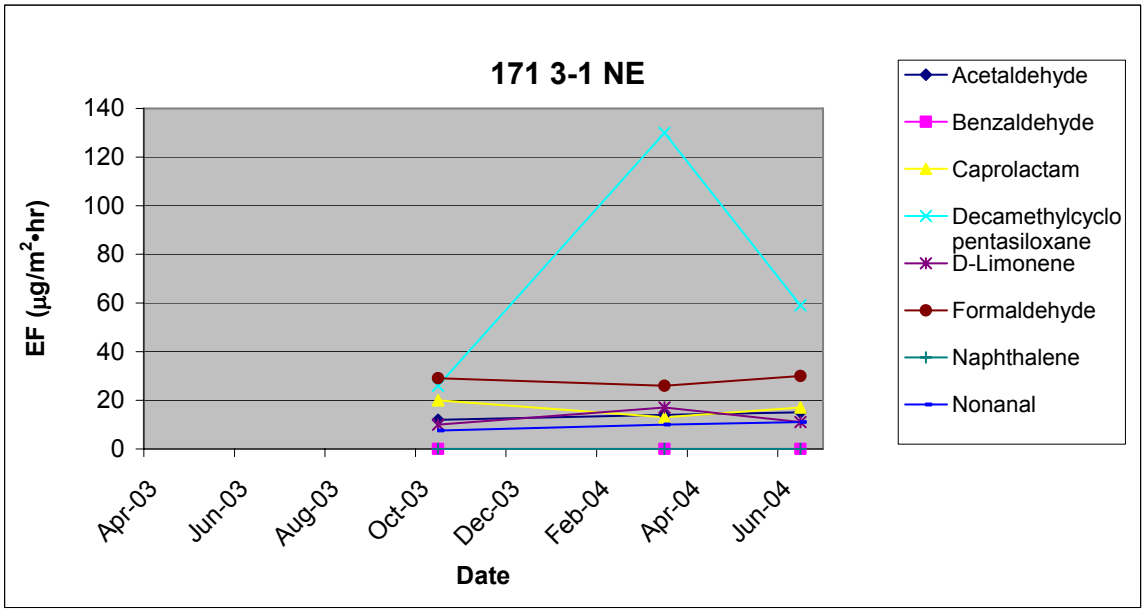
[2] Site located in building's North-East section and served by AHU 1-2
[3] GC/MS data for 04-30-03 unavailable due to instrument failure during sample analysis. Aldehyde data are listed above
[4] Ventilation rate not measured on 04-30-03

Table 1b. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 2-2[5]				
	Pre-occupancy[6]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[7]	0.59	0.49	0.47
	Concentration (µg/m3)			
Acetaldehyde	3.7	6.1	7.1	14
Benzaldehyde		< 3	2.4	< 2
Caprolactam		4.4	7	8.5
Decamethylcyclopentasiloxane		12	40	31
D-Limonene		3.3	35	4.6
Formaldehyde	32	9.7	14	21
Naphthalene		< 1	< 0.9	< 0.9
Nonanal	4.5	< 3	12	5.1
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	7.6	14	20
Benzaldehyde		< 7	4.7	< 4
Caprolactam		10	14	16
Decamethylcyclopentasiloxane		28	77	58
D-Limonene		7.9	68	8.7
Formaldehyde		17	23	30
Naphthalene		< 3	< 2	< 2
Nonanal		< 7	24	9.6



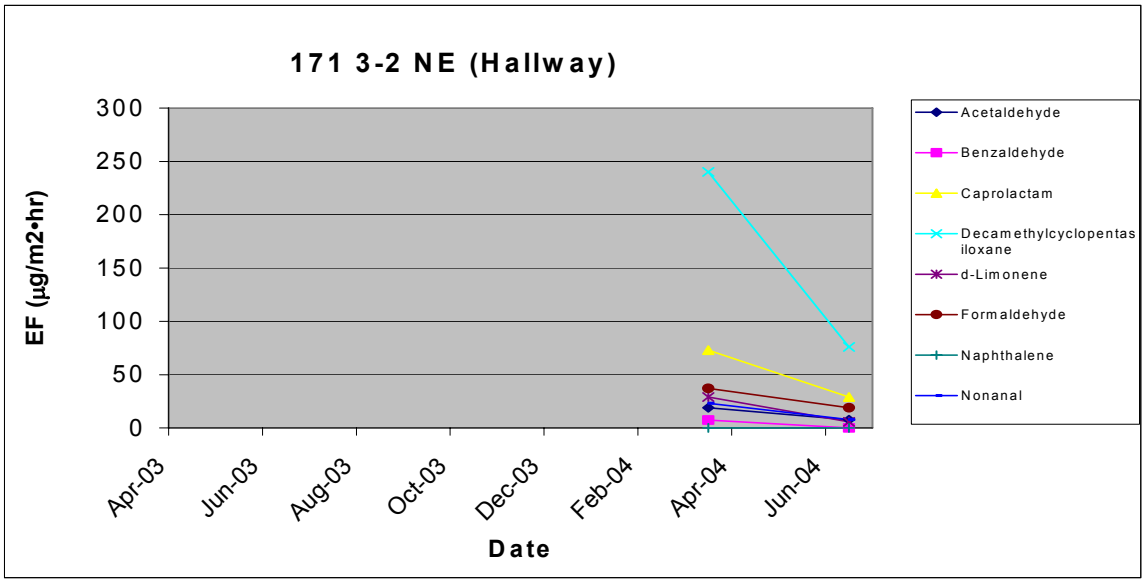
[5] Site located in building's South-West section and served by AHU 1-4
[6] GC/MS data for 04-30-03 unavailable due to instrument failure during sample analysis. Aldehyde data are listed above.
[7] Ventilation rate not measured on 04-30-03

Table 1c. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 3-1[8]				
	Pre-occupancy[9]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[10]	0.44	0.46	0.52
	Concentration (µg/m3)			
Acetaldehyde	See footnotes below	9.6	7.7	10
Benzaldehyde		< 3	2.2	< 2
Caprolactam		12	7.2	8.2
Decamethylcyclopentasiloxane		15	69	28
D-Limonene		5.9	9.1	5.3
Formaldehyde		19	16	20
Naphthalene		< 1	< 0.9	< 0.9
Nonanal		4.3	5.7	5.2
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	12	14	15
Benzaldehyde		< 5	< 4	< 5
Caprolactam		20	13	17
Decamethylcyclopentasiloxane		26	130	59
D-Limonene		10	17	11
Formaldehyde		29	26	30
Naphthalene		< 2	< 2	< 2
Nonanal		7.5	10	11



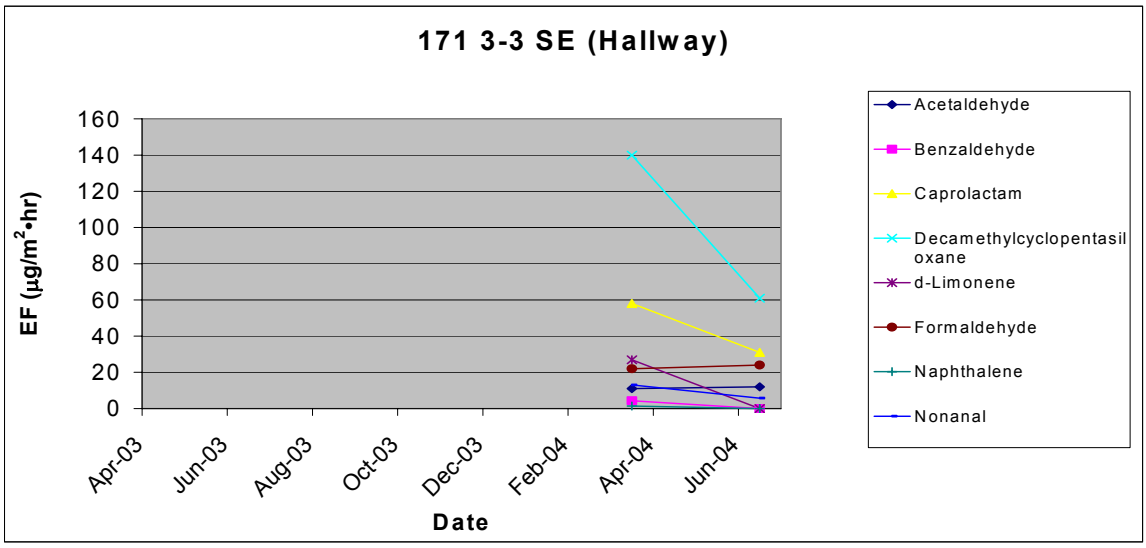
[8] Site located in building's North-East section and served by AHU 1-2
[9] No VOC data collected on 04-30-03 at this location
[10] Ventilation rate not measured on 04-30-03

Table 1d. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 3-2 (hallway)[11]				
	Pre-occupancy[12]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[13]		0.66	0.34
	Concentration (µg/m3)			
Acetaldehyde	See footnotes below		7.2	8.7
Benzaldehyde			2.9	< 2
Caprolactam			28	21
Decamethylcyclopentasiloxane			91	55
d-Limonene			11	4.1
Formaldehyde			16	19
Naphthalene			< 0.9	< 0.9
Nonanal			8.5	5.7
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below		19	7.7
Benzaldehyde			7.5	< 3
Caprolactam			73	29
Decamethylcyclopentasiloxane			240	76
d-Limonene			29	5.7
Formaldehyde			37	19
Naphthalene			< 2	< 1
Nonanal			23	7.8



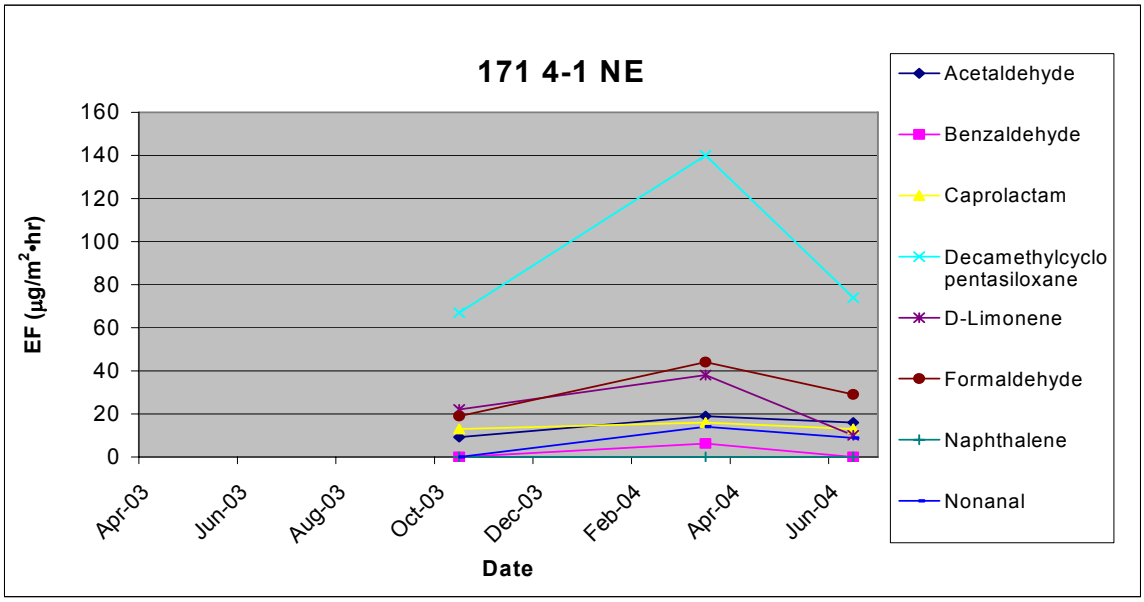
[11] Site located in building's North-East section and served by AHU 1-2
[12] No VOC data collected on 04-30-03 at this location
[13] Ventilation rate not measured on 04-30-03

Table 1e. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 3-3 (hallway)[14]				
	Pre-occupancy[15]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[16]		0.38	0.43
	Concentration (µg/m3)			
Acetaldehyde	See footnotes below		7.5	10
Benzaldehyde			2.8	< 2
Caprolactam			38	18
Decamethylcyclopentasiloxane			93	36
d-Limonene			17	< 2
Formaldehyde			16	19
Naphthalene			0.94	< 0.9
Nonanal			8.2	3.4
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below		11	12
Benzaldehyde			4.3	< 4
Caprolactam			58	31
Decamethylcyclopentasiloxane			140	61
d-Limonene			27	< 4
Formaldehyde			22	24
Naphthalene			1.4	< 2
Nonanal			13	5.8



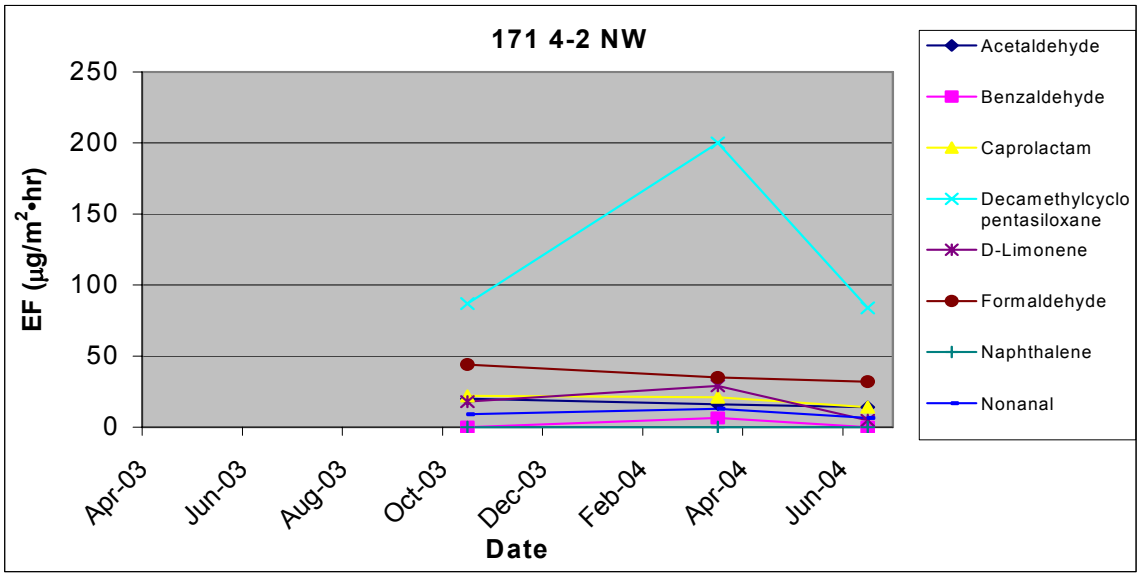
[14] Site located in building's South-East section and served by AHU 1-3
[15] No VOC data collected on 04-30-03 at this location
[16] Ventilation rate not measured on 04-30-03

Table 1f. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 4-1[17]				
	Pre-occupancy[18]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[19]	0.65	0.65	0.5
	Concentration (µg/m3)			
Acetaldehyde	4.5	6.4	7.4	11
Benzaldehyde		< 3	2.4	< 2
Caprolactam		4.8	6.3	6.2
Decamethylcyclopentasiloxane		26	53	36
D-Limonene		8.5	14	5
Formaldehyde	19	9.8	19	20
Naphthalene		< 1	< 0.9	< 0.9
Nonanal	6.4	< 3	5.6	4.3
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	9.2	19	16
Benzaldehyde		< 7	6.2	< 5
Caprolactam		13	16	13
Decamethylcyclopentasiloxane		67	140	74
D-Limonene		22	38	10
Formaldehyde		19	44	29
Naphthalene		< 3	< 2	< 2
Nonanal		< 7	14	8.8



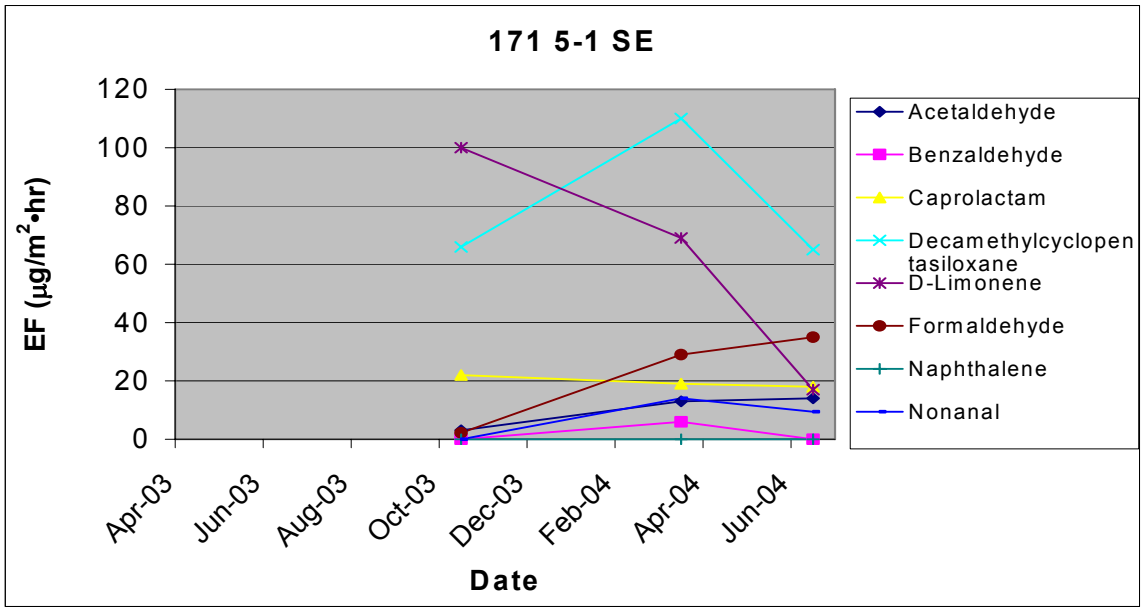
[17] Site located in building's North-East section and served by AHU 1-2
[18] GC/MS data for 04-30-03 unavailable due to instrument failure during sample analysis. Aldehyde data are listed above
[19] Ventilation rate not measured on 04-30-03

Table 1g. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 4-2[20]				
	Pre-occupancy[21]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[22]	0.59	0.59	0.5
	Concentration (µg/m3)			
Acetaldehyde	See footnotes below	11	6.9	10
Benzaldehyde		< 3	2.8	< 2
Caprolactam		9.5	8.8	6.8
Decamethylcyclopentasiloxane		37	83	42
D-Limonene		7.5	12	2.4
Formaldehyde		21	17	21
Naphthalene		< 1	< 0.9	< 0.9
Nonanal		3.8	5.4	3.2
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	20	16	14
Benzaldehyde		< 6	6.5	< 5
Caprolactam		22	21	14
Decamethylcyclopentasiloxane		87	200	84
D-Limonene		18	29	4.8
Formaldehyde		44	35	32
Naphthalene		< 3	< 2	< 2
Nonanal		9	13	6.4



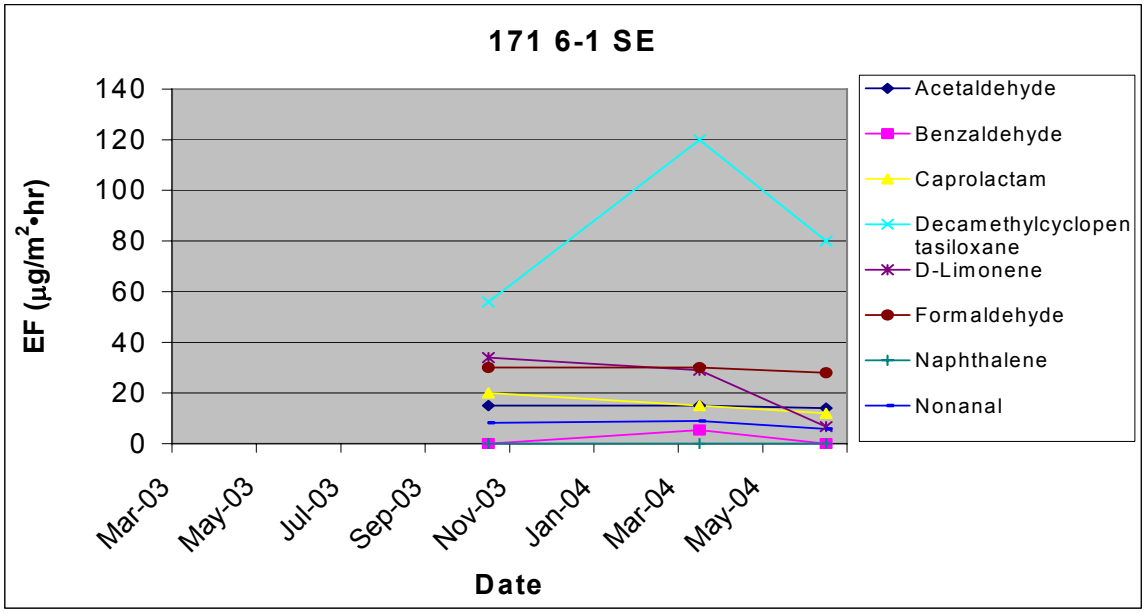
[20] Site located in building's North-West section and served by AHU 1-1
[21] No VOC data collected on 04-30-03 at this location
[22] Ventilation rate not measured on 04-30-03

Table 1h. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 5-1[23]				
	Pre-occupancy[24]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[25]	0.65	0.65	0.56
	Concentration (µg/m3)			
Acetaldehyde	See footnotes below	< 1	5.2	9.5
Benzaldehyde		< 3	2.3	< 2
Caprolactam		8.4	7.3	8.3
Decamethylcyclopentasiloxane		25	42	29
D-Limonene		39	26	7.6
Formaldehyde		< 0.8	13	21
Naphthalene		< 1	< 0.9	< 0.9
Nonanal		< 3	5.2	4.2
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	3.1	13	14
Benzaldehyde		< 7	6	< 5
Caprolactam		22	19	18
Decamethylcyclopentasiloxane		66	110	65
D-Limonene		100	69	17
Formaldehyde		2.2	29	35
Naphthalene		< 3	< 2	< 2
Nonanal		< 7	14	9.4



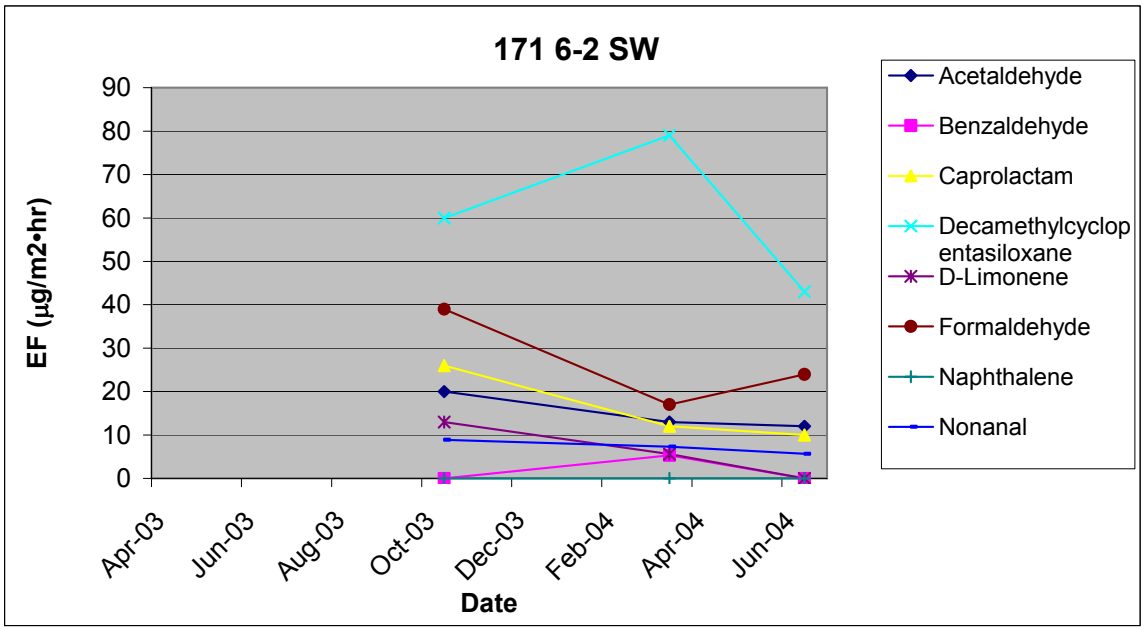
[23] Site located in building's South-East section and served by AHU 1-3
[24] No VOC data collected on 04-30-03 at this location
[25] Ventilation rate not measured on 04-30-03

Table 1i. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 6-1[26]				
	Pre-occupancy[27]	Post-occupancy #1	Post-occupancy #2	Post-occupancy #3
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[28]	0.56	0.56	0.48
	Concentration (µg/m3)			
Acetaldehyde	4.7	9.5	6.7	10
Benzaldehyde		< 3	2.4	< 2
Caprolactam		8.8	6.7	6.1
Decamethylcyclopentasiloxane		25	52	41
D-Limonene		15	13	3.5
Formaldehyde	4.7	16	15	20
Naphthalene		< 1	< 0.9	< 0.9
Nonanal	<2.9	3.7	4	3
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	15	15	14
Benzaldehyde		< 6	5.4	< 4
Caprolactam		20	15	12
Decamethylcyclopentasiloxane		56	120	80
D-Limonene		34	29	6.7
Formaldehyde		30	30	28
Naphthalene		< 2	< 2	< 2
Nonanal		8.2	8.9	5.8



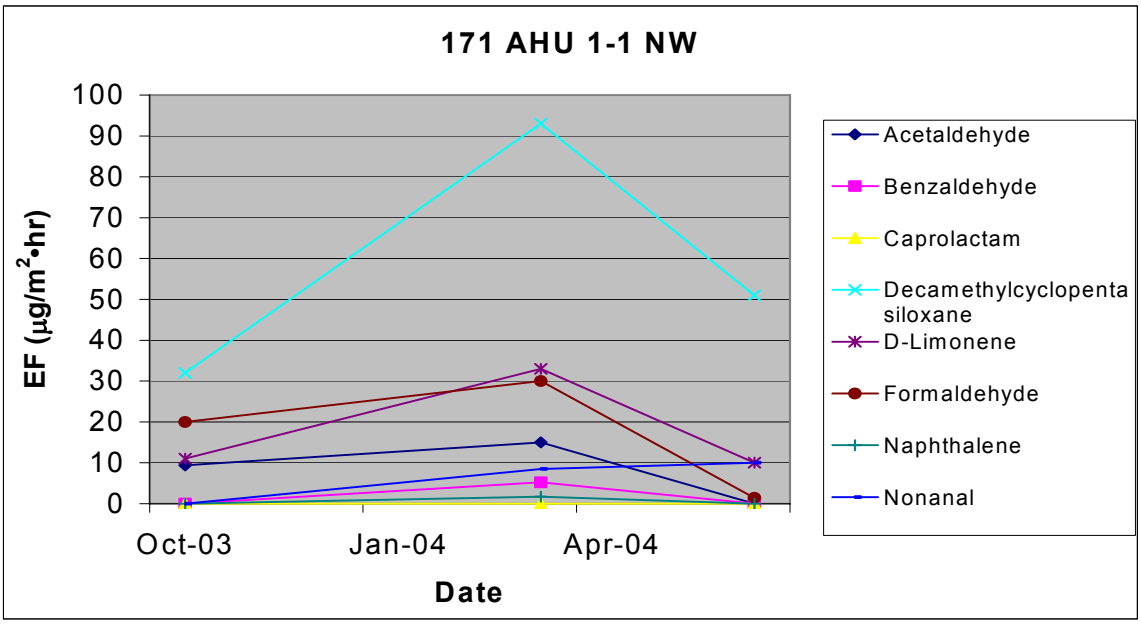
[26] Site located in building's South-East section and served by AHU 1-3
[27] GC/MS data for 04-30-03 unavailable due to instrument failure during sample analysis. Aldehyde data are listed above
[28] Ventilation rate not measured on 04-30-03

Table 1j. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 6-2[29]				
	Pre-occupancy[30]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[31]	0.58	0.58	0.45
	Concentration (µg/m3)			
Acetaldehyde	3	11	5.6	9.6
Benzaldehyde		< 3	2.3	< 2
Caprolactam		11	5	5.6
Decamethylcyclopentasiloxane		26	34	24
D-Limonene		5.5	2.4	< 2
Formaldehyde	11	19	9.4	18
Naphthalene		< 1	< 0.9	< 0.9
Nonanal	<2.9	3.8	3.1	3.2
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	20	13	12
Benzaldehyde		< 6	5.3	< 4
Caprolactam		26	12	10
Decamethylcyclopentasiloxane		60	79	43
D-Limonene		13	5.6	< 4
Formaldehyde		39	17	24
Naphthalene		< 2	< 2	< 2
Nonanal		8.9	7.3	5.7



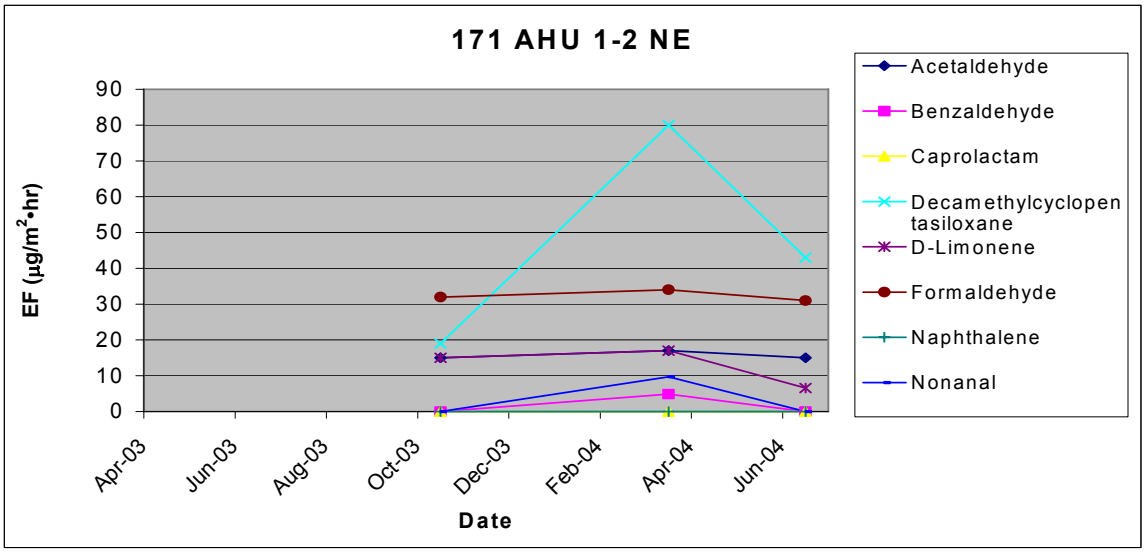
[29] Site located in building's South-West section and served by AHU 1-4
[30] GC/MS data for 04-30-03 unavailable due to instrument failure during sample analysis. Aldehyde data are listed above
[31] Ventilation rate not measured on 04-30-03

Table 1k. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 1-1[32]				
	Pre-occupancy[33]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[34]	0.48	0.48	0.47
	Concentration (µg/m3)			
Acetaldehyde	1.8	7.7	7.9	3.5
Benzaldehyde		< 3	2.6	< 2
Caprolactam		< 2	< 2	< 2
Decamethylcyclopentasiloxane		16	47	27
D-Limonene		5.8	17	5.3
Formaldehyde	11	13	17	5.2
Naphthalene		< 1	0.88	< 0.9
Nonanal	<2.9	< 3	4.3	5.2
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	9.4	15	< 2
Benzaldehyde		< 5	5.2	< 4
Caprolactam		< 4	< 4	< 4
Decamethylcyclopentasiloxane		32	93	51
D-Limonene		11	33	10
Formaldehyde		20	30	1.4
Naphthalene		< 2	1.7	< 2
Nonanal		< 5	8.5	10



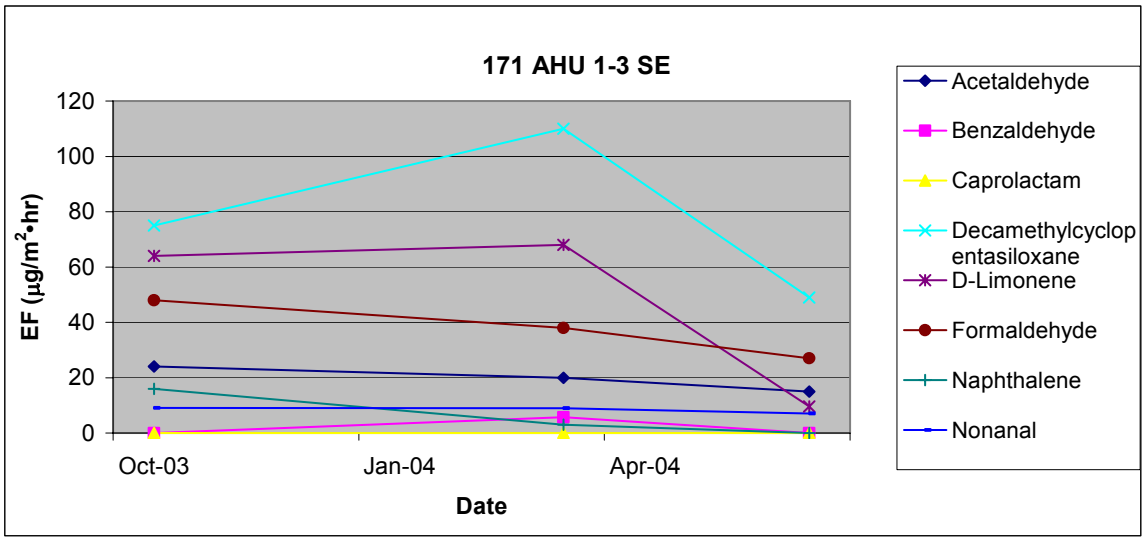
[32] Return air serving building's North-West section
[33] GC/MS data for 04-30-03 unavailable due to instrument failure during sample analysis. Aldehyde data are listed above
[34] Ventilation rate not measured on 04-30-03

Table 1l. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 1-2[35]				
	Pre-occupancy[36]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[37]	0.53	0.53	0.47
	Concentration (µg/m3)			
Acetaldehyde	4.1	9.9	7.8	11
Benzaldehyde		< 2	2.3	< 2
Caprolactam		< 2	< 2	< 2
Decamethylcyclopentasiloxane		8.9	37	23
D-Limonene		6.8	7.7	3.4
Formaldehyde	16	17	18	21
Naphthalene		< 1	< 0.8	< 0.9
Nonanal	9.3	< 2	4.5	< 2
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	15	17	15
Benzaldehyde		< 5	4.9	< 4
Caprolactam		< 5	< 4	< 4
Decamethylcyclopentasiloxane		19	80	43
D-Limonene		15	17	6.6
Formaldehyde		32	34	31
Naphthalene		< 2	< 2	< 2
Nonanal		< 5	9.7	< 4



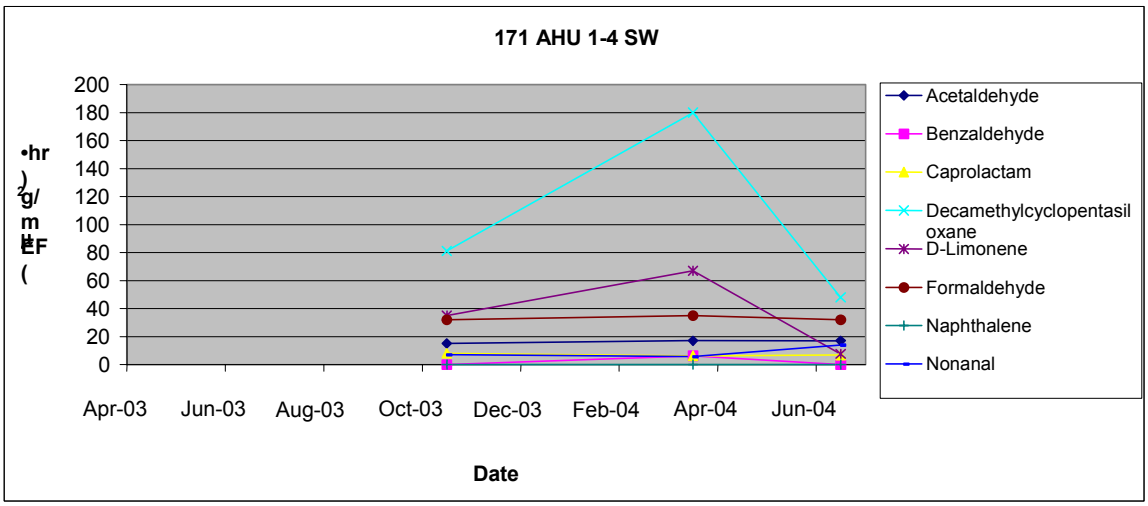
[35] Return air serving building's North-East section
[36] GC/MS data for 04-30-03 unavailable due to instrument failure during sample analysis. Aldehyde data are listed above
[37] Ventilation rate not measured on 04-30-03

Table 1m. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 1-3[38]				
	Pre-occupancy[39]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03[40]**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate		0.58	0.58	0.47
	Concentration (µg/m3)			
Acetaldehyde	5	13	8.4	11
Benzaldehyde		< 3	2.4	< 2
Caprolactam		< 2	< 2	< 2
Decamethylcyclopentasiloxane		32	47	26
D-Limonene		27	29	5
Formaldehyde	27	23	18	20
Naphthalene		6.9	1.2	< 0.9
Nonanal	3.5	3.9	3.8	3.7
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	24	20	15
Benzaldehyde		< 6	5.7	< 4
Caprolactam		< 5	< 5	< 4
Decamethylcyclopentasiloxane		75	110	49
D-Limonene		64	68	9.6
Formaldehyde		48	38	27
Naphthalene		16	3	< 2
Nonanal		9.1	9	7.1



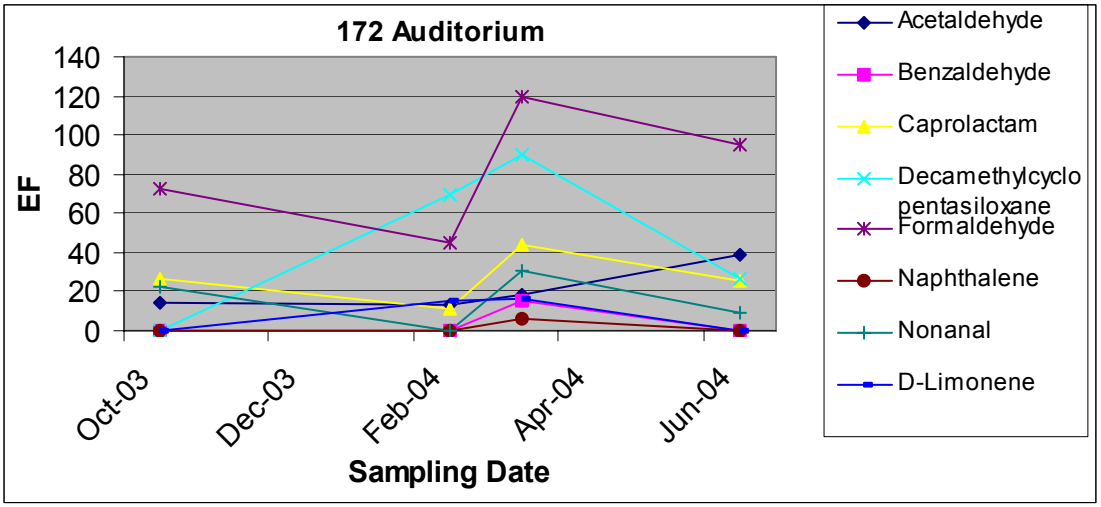
[38] Return air serving building's South-East section
[39] GC/MS data for 04-30-03 unavailable due to instrument failure during sample analysis. Aldehyde data are listed above
[40] Ventilation rate not measured on 04-30-03

Table 1n. Building 171: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 1-4[41]				
	Pre-occupancy[42]	Post-occupancy		
		#1	#2	#3
Sampling Date	**30-April-03**	**15-Oct-03**	**24-Mar-04**	**2-Jun-04**
Air Change Rate	[43]	0.58	0.58	0.46
	Concentration (µg/m3)			
Acetaldehyde	4.8	9.3	7.3	12
Benzaldehyde		< 3	2.7	< 2
Caprolactam		3.4	2.7	3.6
Decamethylcyclopentasiloxane		34	74	25
D-Limonene		15	28	4
Formaldehyde	24	16	17	22
Naphthalene		< 1	< 0.9	< 0.9
Nonanal	7.5	3	2.4	7.5
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	15	17	17
Benzaldehyde		< 6	6.3	< 4
Caprolactam		7.9	6.3	6.8
Decamethylcyclopentasiloxane		81	180	48
D-Limonene		35	67	7.6
Formaldehyde		32	35	32
Naphthalene		< 2	< 2	< 2
Nonanal		7	5.7	14



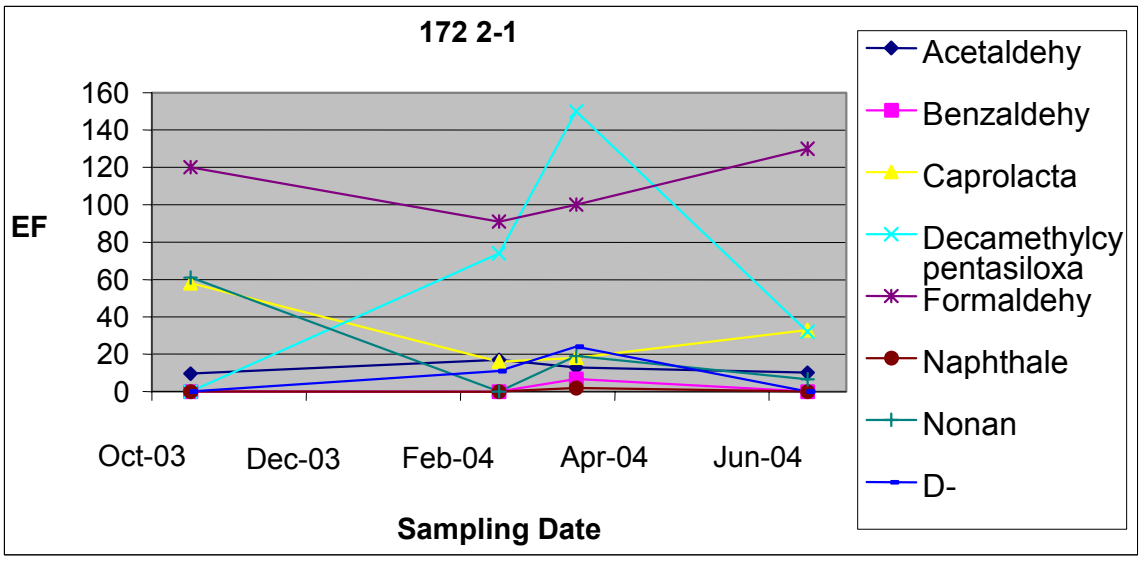
[41] Return air serving building's South-West section
[42] GC/MS data for 04-30-03 unavailable due to instrument failure during sample analysis. Aldehyde data are listed above
[43] Ventilation rate not measured on 04-30-03

Table 2a. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 1-Aud (auditorium)[44]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	0.68	0.72	1.4	0.82
	Concentration (μg/m^3)			
Acetaldehyde	5.9	6.2	4.2	< 10
Benzaldehyde	< 3	< 4	2.4	< 2
Caprolactam	8.7	3.4	6.9	7.1
Decamethylcyclopentasiloxane	< 3	21	14	7.1
D-Limonene	< 3	4.6	2.5	< 2
Formaldehyde	27	17	20	30
Naphthalene	< 1	< 1	0.98	< 0.9
Nonanal	7	< 4	4.8	2.7
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	14	13	18	39
Benzaldehyde	< 9	< 10	15	< 9
Caprolactam	27	11	44	26
Decamethylcyclopentasiloxane	< 9	70	90	27
D-Limonene	< 9	15	16	< 9
Formaldehyde	73	45	120	95
Naphthalene	< 4	< 5	6.2	< 3
Nonanal	22	< 10	31	8.7



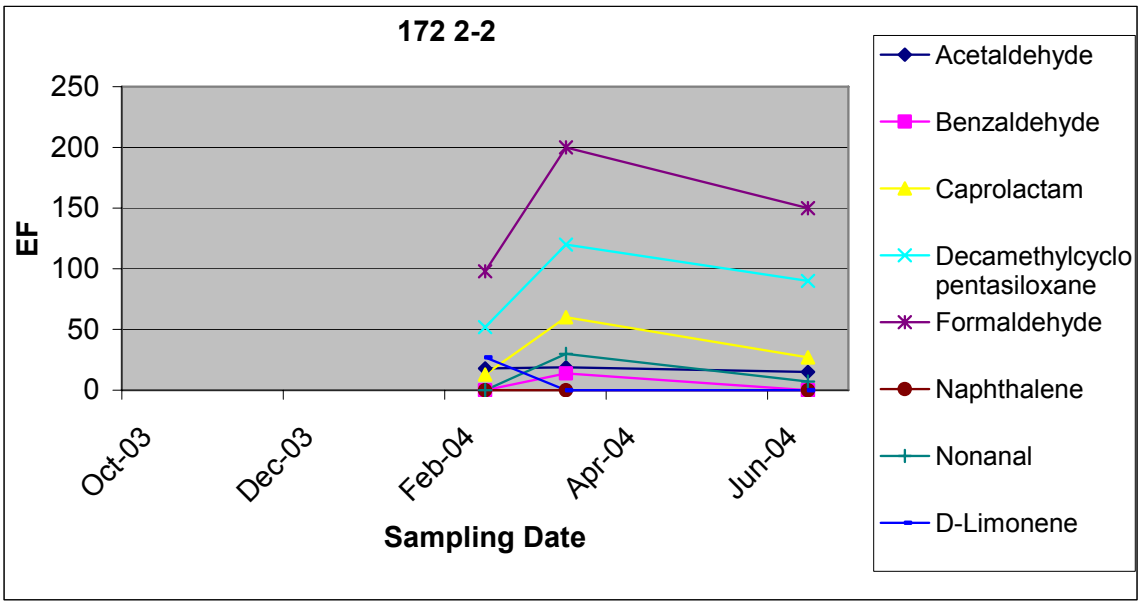
[44] Site located in building's Center section and served by AHU

Table 2b. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 2-1[45]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	1.1	0.8	0.5	0.71
	Concentration (μg/m^3)			
Acetaldehyde	3.6	7.6	7.9	6.3
Benzaldehyde	< 3	< 2	3.3	< 2
Caprolactam	13	5.1	8.9	12
Decamethylcyclopentasiloxane	< 3	23	74	11
D-Limonene	< 3	3.5	12	< 2
Formaldehyde	31	31	53	50
Naphthalene	< 1	< 1	0.92	< 0.9
Nonanal	14	< 2	9.2	4
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	9.6	17	13	10
Benzaldehyde	< 10	< 8	6.7	< 7
Caprolactam	58	16	18	33
Decamethylcyclopentasiloxane	< 10	74	150	32
D-Limonene	< 10	11	24	< 7
Formaldehyde	120	91	100	130
Naphthalene	< 5	< 3	1.9	< 3
Nonanal	61	< 8	19	6.6



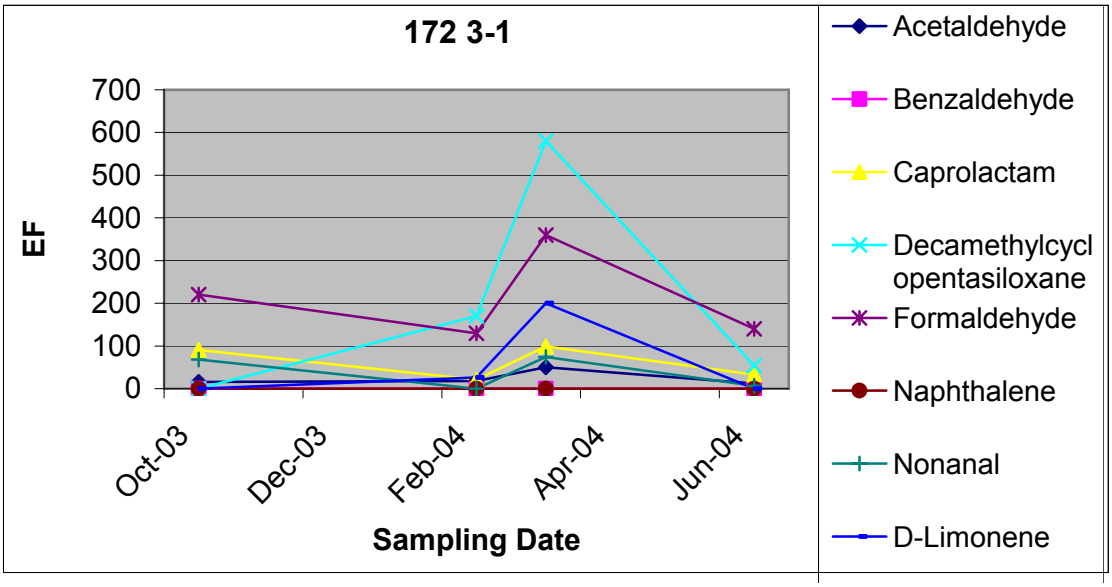
[45] Site located in building's West section and served by AHU

Table 2c. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 2-2[46]				
	Pre-occupancy[47]	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate		0.89	1.2	0.76
	Concentration (μg/m³)			
Acetaldehyde	See footnote below	7.3	5.3	7.8
Benzaldehyde		< 2	2.9	< 2
Caprolactam		3.7	13	9
Decamethylcyclopentasiloxane		15	26	30
D-Limonene		7.6	< 2	< 2
Formaldehyde		30	44	55
Naphthalene		< 1	< 0.9	< 0.9
Nonanal		< 2	6.3	4.5
	Net Emission Factor (indoors-outdoors) (μg/hr m²)			
Acetaldehyde	See footnote below	18	19	15
Benzaldehyde		< 9	14	< 7
Caprolactam		13	60	27
Decamethylcyclopentasiloxane		52	120	90
D-Limonene		27	< 10	< 7
Formaldehyde		98	200	150
Naphthalene		< 3	< 4	< 3
Nonanal		< 9	30	7.1



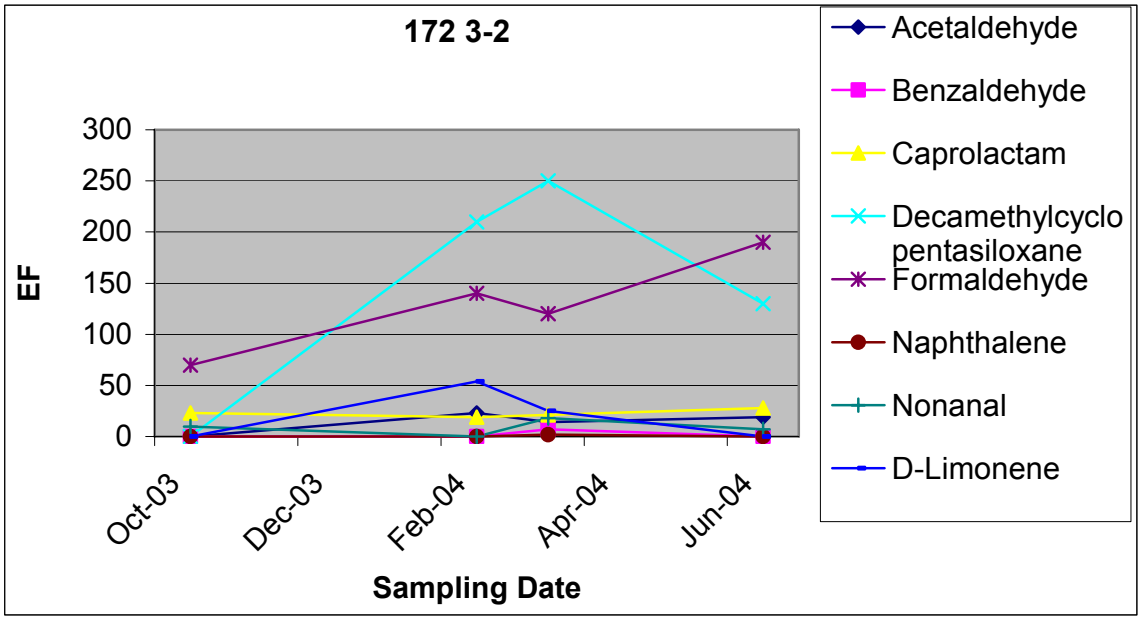
[46] Site located in building's East section and served by AHU
[47] No VOC or ventilation data collected at this location on 10-10-03

Table 2d. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 3-1[48]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	1.3	0.89	1.1	0.73
	Concentration (μg/m^3)			
Acetaldehyde	4.5	7.3	12	6.8
Benzaldehyde	< 3	< 2	< 8	< 2
Caprolactam	18	6	22	11
Decamethylcyclopentasiloxane	< 3	48	130	18
D-Limonene	< 3	7.2	43	< 2
Formaldehyde	47	40	81	51
Naphthalene	< 1	< 1	< 3	< 0.9
Nonanal	13	< 2	16	5.2
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	16	18	50	12
Benzaldehyde	< 20	< 9	< 40	< 7
Caprolactam	91	21	99	33
Decamethylcyclopentasiloxane	< 20	170	580	54
D-Limonene	< 20	26	200	< 7
Formaldehyde	220	130	360	140
Naphthalene	< 6	< 3	< 20	< 3
Nonanal	68	< 9	74	6.8



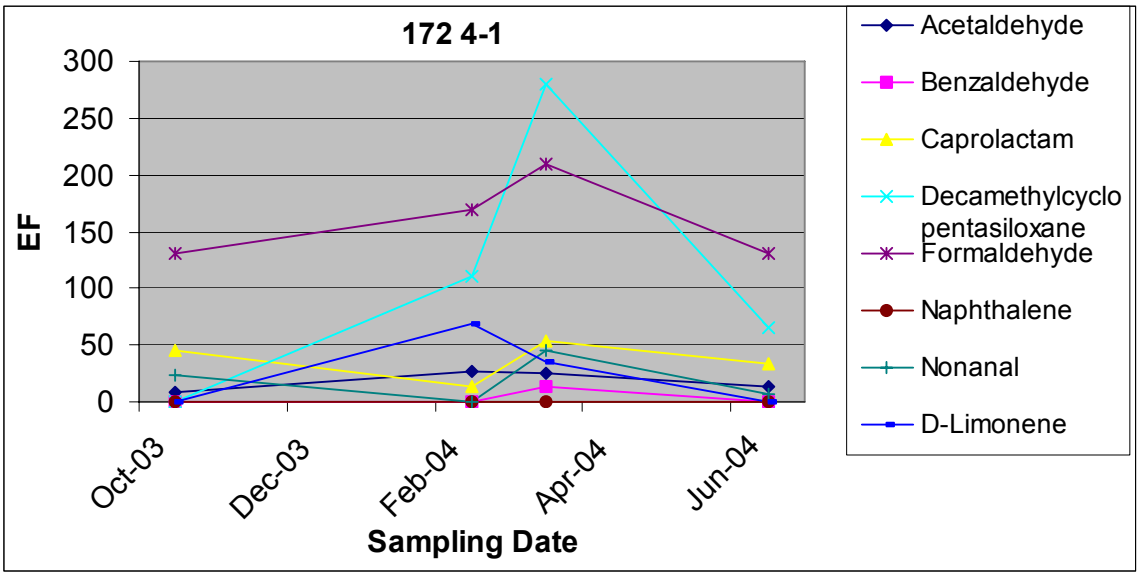
[48] Site located in building's West section and served by AHU

Table 2e. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 3-2[49]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	0.64	1	0.46	0.74
	Concentration (μg/m^3)			
Acetaldehyde	2.5	7.9	8.8	9
Benzaldehyde	< 3	< 2	3.9	< 2
Caprolactam	9	4.7	11	9.3
Decamethylcyclopentasiloxane	< 3	53	140	43
D-Limonene	< 3	13	14	< 2
Formaldehyde	31	39	69	68
Naphthalene	< 1	< 1	0.95	< 0.9
Nonanal	3.9	< 2	9.5	5.1
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	< 3	23	14	19
Benzaldehyde	< 8	< 10	7.2	< 7
Caprolactam	23	19	21	28
Decamethylcyclopentasiloxane	< 8	210	250	130
D-Limonene	< 8	54	25	< 7
Formaldehyde	70	140	120	190
Naphthalene	< 3	< 4	1.8	< 3
Nonanal	9.9	< 10	18	6.9



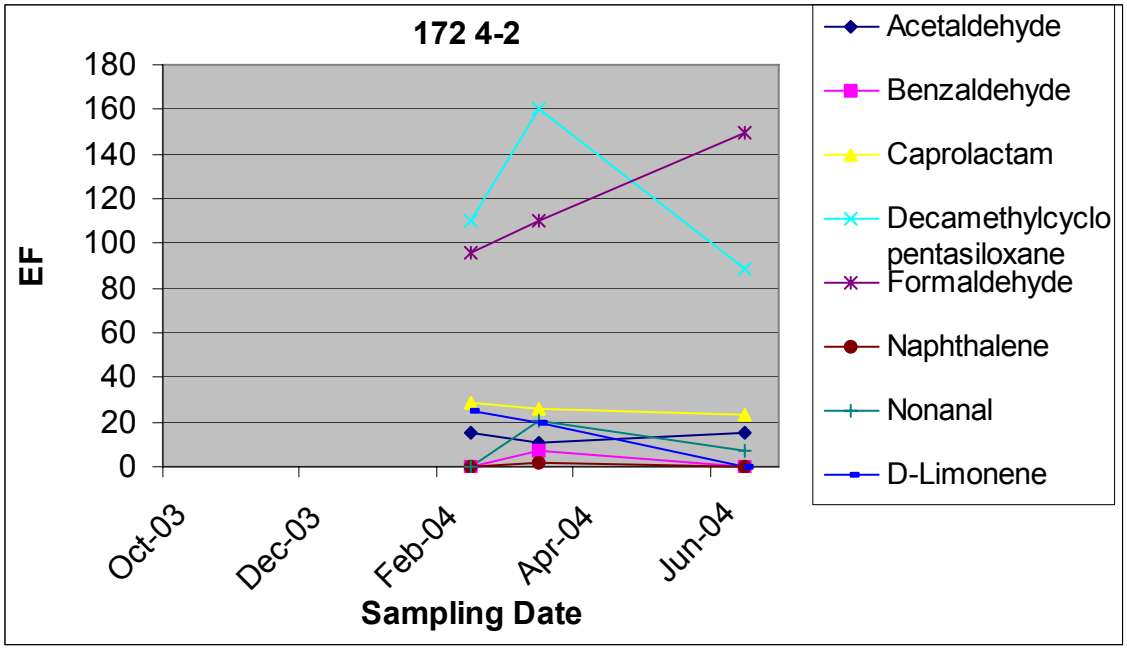
[49] Site located in building's East section and served by AHU

Table 2f. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 4-1[50]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	1.4	0.98	1.3	0.74
	Concentration (μg/m^3)			
Acetaldehyde	3	9.1	6.2	7
Benzaldehyde	< 3	< 2	2.8	< 2
Caprolactam	8.4	3.6	10	11
Decamethylcyclopentasiloxane	< 3	28	53	22
D-Limonene	< 3	18	6.9	< 2
Formaldehyde	28	47	42	50
Naphthalene	< 1	< 1	< 0.9	< 0.9
Nonanal	4.5	< 2	8.7	5.9
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	8.7	27	25	13
Benzaldehyde	< 20	< 9	14	< 7
Caprolactam	46	14	54	34
Decamethylcyclopentasiloxane	< 20	110	280	65
D-Limonene	< 20	69	36	< 7
Formaldehyde	130	170	210	130
Naphthalene	< 7	< 4	< 5	< 3
Nonanal	24	< 9	45	6.8



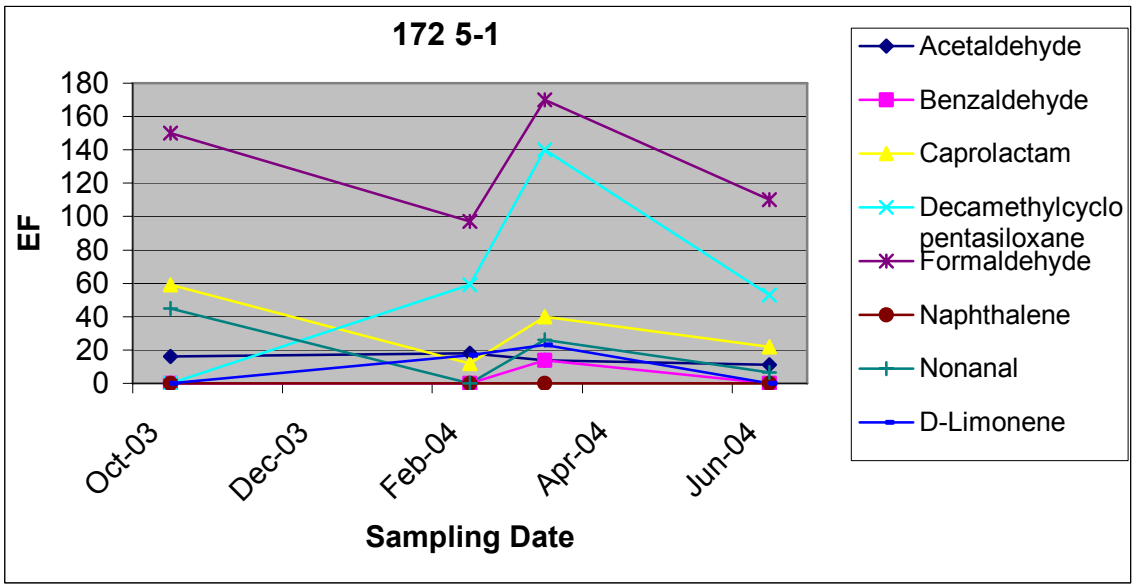
[50] Site located in building's West section and served by AHU

Table 2g. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 4-2[51]				
	Pre-occupancy[52]	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate		0.92	0.5	0.75
	Concentration (μg/m³)			
Acetaldehyde	See footnote below	6.3	7	7.8
Benzaldehyde		< 2	3.6	< 2
Caprolactam		7.8	13	7.7
Decamethylcyclopentasiloxane		30	78	30
D-Limonene		6.7	10	< 2
Formaldehyde		29	58	54
Naphthalene		< 0.9	0.91	< 0.9
Nonanal		< 2	10	4.2
	Net Emission Factor (indoors-outdoors) (μg/hr m²)			
Acetaldehyde	See footnote below	15	11	15
Benzaldehyde		< 9	7.2	< 7
Caprolactam		29	26	23
Decamethylcyclopentasiloxane		110	160	89
D-Limonene		25	20	< 7
Formaldehyde		96	110	150
Naphthalene		< 3	1.8	< 3
Nonanal		< 9	21	6.9



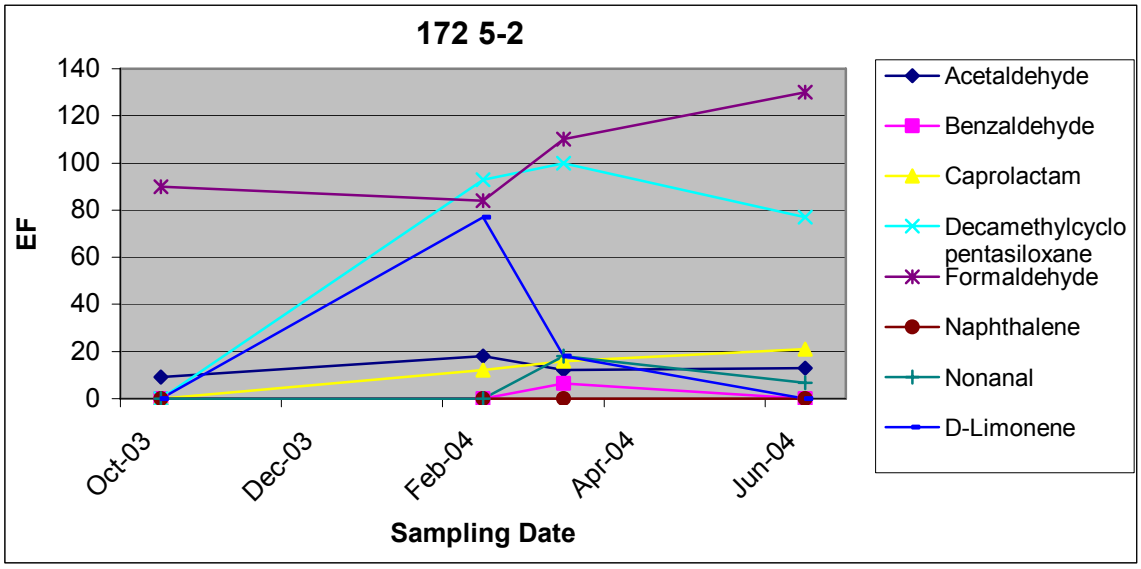
[51] Site located in building's East section and served by AHU
[52] No VOC or ventilation data collected at this location on 10-10-03

Table 2h. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 5-1[53]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	1.4	0.97	1.3	0.7
	Concentration (μg/m^3)			
Acetaldehyde	4.2	6.8	4.1	6.7
Benzaldehyde	< 3	< 2	2.7	< 2
Caprolactam	11	3	7.7	7.7
Decamethylcyclopentasiloxane	< 3	15	27	19
D-Limonene	< 3	4.4	4.5	< 2
Formaldehyde	30	28	34	42
Naphthalene	< 1	< 0.9	< 0.9	< 0.9
Nonanal	8.1	< 2	5	4.2
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	16	18	14	11
Benzaldehyde	< 20	< 9	14	< 6
Caprolactam	59	12	40	22
Decamethylcyclopentasiloxane	< 20	59	140	53
D-Limonene	< 20	17	23	< 6
Formaldehyde	150	97	170	110
Naphthalene	< 7	< 4	< 5	< 3
Nonanal	45	< 9	26	6.5



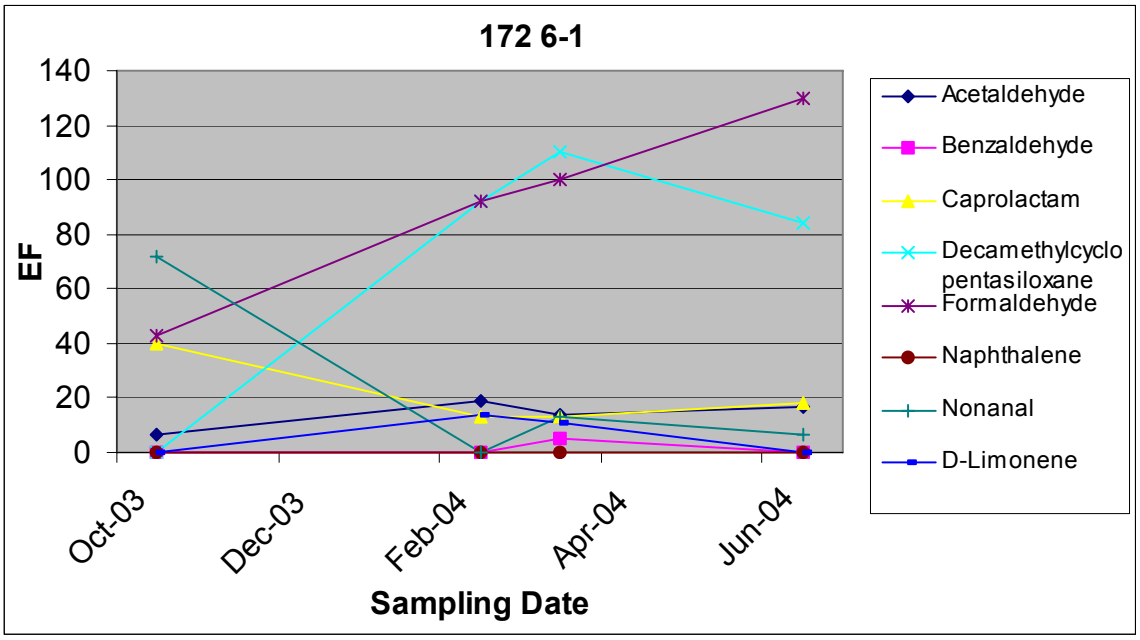
[53] Site located in building's West section and served by AHU

Table 2i. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 5-2[54]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	0.94	0.95	0.51	0.73
	Concentration (μg/m^3)			
Acetaldehyde	3.8	7	7.4	7.4
Benzaldehyde	< 3	< 2	3.2	< 2
Caprolactam	< 3	3.2	8.1	7.1
Decamethylcyclopentasiloxane	< 3	24	50	27
D-Limonene	< 3	20	8.7	< 2
Formaldehyde	28	25	56	50
Naphthalene	< 1	< 0.9	< 0.9	< 0.9
Nonanal	< 3	< 2	8.8	4.8
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	9.1	18	12	13
Benzaldehyde	< 10	< 9	6.5	< 7
Caprolactam	< 10	12	16	21
Decamethylcyclopentasiloxane	< 10	93	100	77
D-Limonene	< 10	77	18	< 7
Formaldehyde	90	84	110	130
Naphthalene	< 5	< 3	< 2	< 3
Nonanal	< 10	< 9	18	6.7



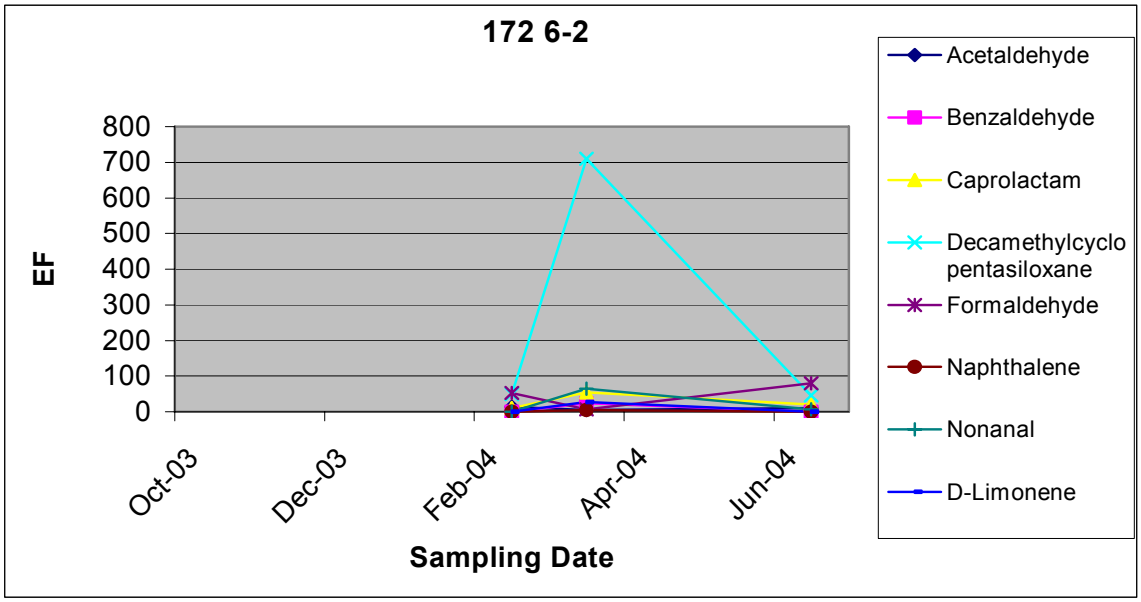
[54] Site located in building's East section and served by AHU

Table 2j. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 6-1[55]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	0.92	0.97	0.52	0.72
	Concentration (μg/m^3)			
Acetaldehyde	3.1	7.1	7.9	8.7
Benzaldehyde	< 3	< 2	2.5	< 2
Caprolactam	11	3.4	6.4	6.4
Decamethylcyclopentasiloxane	< 3	24	52	29
D-Limonene	< 3	3.7	5.2	< 2
Formaldehyde	15	27	50	50
Naphthalene	< 1	< 0.9	< 0.9	< 0.9
Nonanal	20	< 2	6.1	4.2
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	6.4	19	14	17
Benzaldehyde	< 10	< 9	5.1	< 7
Caprolactam	40	13	13	18
Decamethylcyclopentasiloxane	< 10	92	110	84
D-Limonene	< 10	14	11	< 7
Formaldehyde	43	92	100	130
Naphthalene	< 4	< 4	< 2	< 3
Nonanal	72	< 9	13	6.5



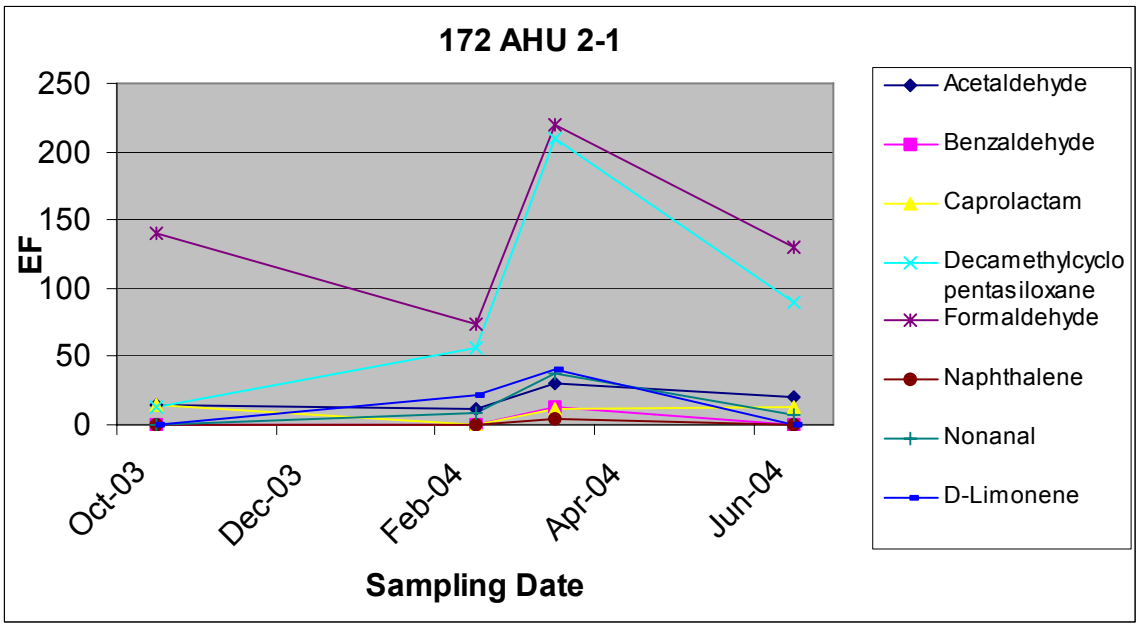
[55] Site located in building's East section and served by AHU

Table 2k. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 6-2[56]				
	Pre-occupancy[57]	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate		0.97	1.4	0.71
	Concentration (μg/m³)			
Acetaldehyde	See footnote below	5.9	< 1	6.3
Benzaldehyde		< 2	4.4	< 2
Caprolactam		2.7	10	7.1
Decamethylcyclopentasiloxane		13	130	16
D-Limonene		< 2	4.9	< 2
Formaldehyde		17	3.3	33
Naphthalene		< 0.9	0.99	< 0.9
Nonanal		< 2	12	4.6
	Net Emission Factor (indoors-outdoors) (μg/hr m²)			
Acetaldehyde	See footnote below	14	5.5	10
Benzaldehyde		< 9	24	< 6
Caprolactam		11	55	20
Decamethylcyclopentasiloxane		49	710	46
D-Limonene		< 9	27	< 6
Formaldehyde		53	6.5	80
Naphthalene		< 4	5.4	< 3
Nonanal		< 9	65	6.5



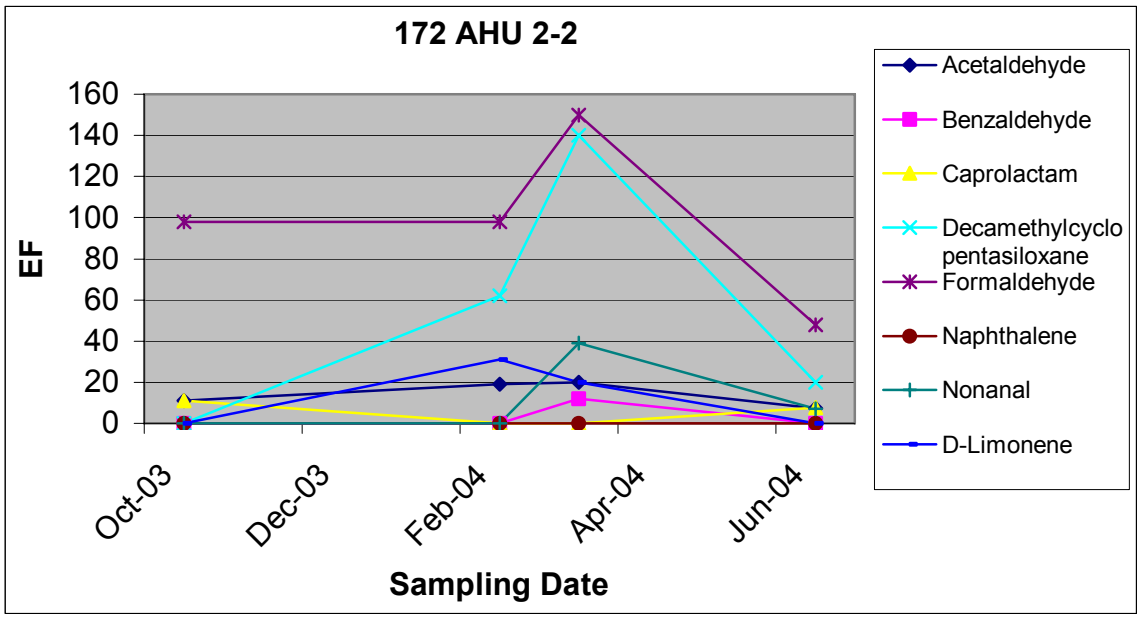
[56] Site located in building's West section and served by AHU
[57] No VOC or ventilation data collected at this location on 10-10-03

Table 2l. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 2-1[58]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	0.67	0.85	1.1	0.71
	Concentration (μg/m^3)			
Acetaldehyde	6.5	5.3	7.7	9.3
Benzaldehyde	< 3	< 2	2.7	< 2
Caprolactam	4.9	< 2	2.5	4.3
Decamethylcyclopentasiloxane	4.3	15	44	29
D-Limonene	< 3	6	8.3	< 2
Formaldehyde	53	23	48	47
Naphthalene	< 1	< 0.9	0.96	< 0.9
Nonanal	< 3	2.4	7.8	4.9
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	15	11	30	20
Benzaldehyde	< 9	< 8	13	< 7
Caprolactam	14	< 7	12	13
Decamethylcyclopentasiloxane	13	56	210	90
D-Limonene	< 9	22	40	< 7
Formaldehyde	140	73	220	130
Naphthalene	< 4	< 3	4.6	< 3
Nonanal	< 9	9	38	7



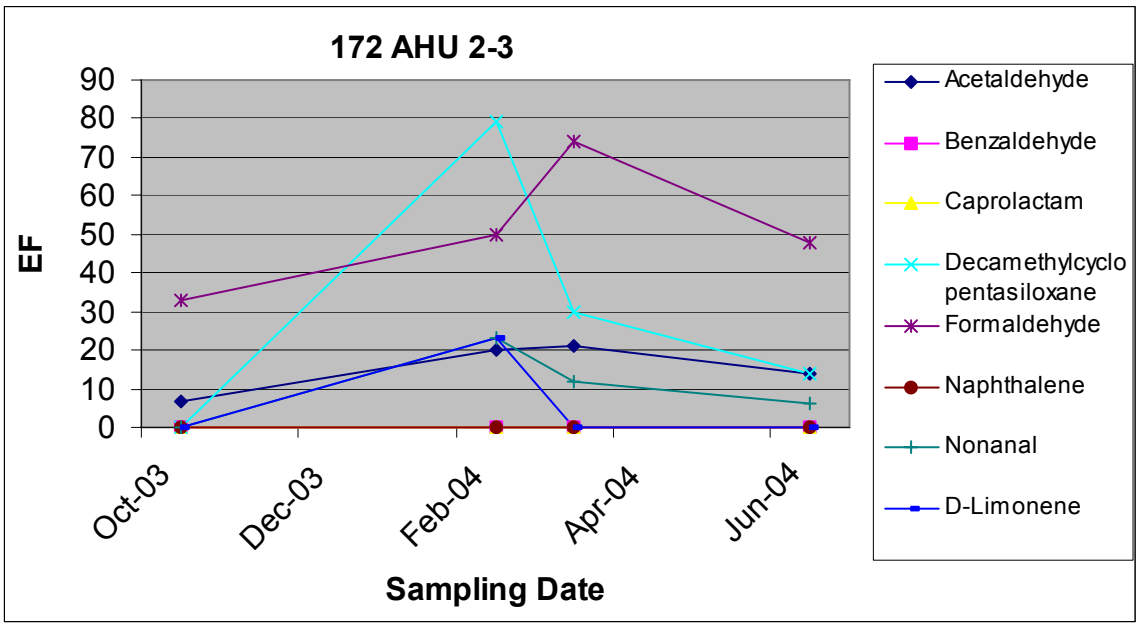
[58] Return air serving building's East section

Table 2m. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 2-2[59]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	0.84	0.9	1.1	0.73
	Concentration (μg/m^3)			
Acetaldehyde	4.3	7.2	5.6	5.1
Benzaldehyde	< 3	< 2	2.4	< 2
Caprolactam	3.1	< 2	< 2	2.4
Decamethylcyclopentasiloxane	< 3	16	29	6.2
D-Limonene	< 3	8	4.2	< 2
Formaldehyde	31	28	33	20
Naphthalene	< 1	< 0.9	< 0.9	< 0.9
Nonanal	< 3	< 2	8.1	4
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	11	19	20	7.5
Benzaldehyde	< 10	< 9	12	< 7
Caprolactam	11	< 8	< 10	7.6
Decamethylcyclopentasiloxane	< 10	62	140	20
D-Limonene	< 10	31	20	< 7
Formaldehyde	98	98	150	48
Naphthalene	< 4	< 4	< 4	< 3
Nonanal	< 10	< 9	39	7.2



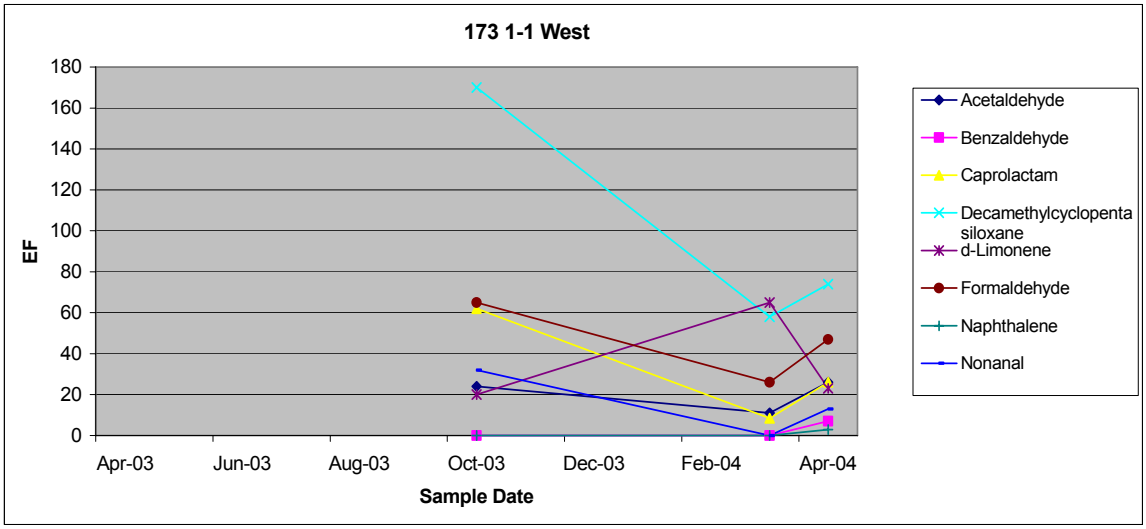
[59] Return air serving building's West section

Table 2n. Building 172: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 2-3[60]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sample Date	**10-Oct-03**	**11-Feb-04**	**30-Mar-04**	**8-Jun-04**
Air Change Rate	0.56	0.7	0.98	0.65
	Concentration (μg/m^3)			
Acetaldehyde	4.4	9.4	6.6	7.8
Benzaldehyde	< 3	< 2	< 2	< 2
Caprolactam	< 3	< 2	< 2	< 2
Decamethylcyclopentasiloxane	< 3	28	7.6	5.1
D-Limonene	< 3	8	< 2	< 2
Formaldehyde	18	20	21	23
Naphthalene	< 1	< 0.9	< 0.9	< 0.9
Nonanal	< 3	8.1	3	< 2
	Net Emission Factor (indoors-outdoors) (μg/hr m^2)			
Acetaldehyde	6.9	20	21	14
Benzaldehyde	< 7	< 6	< 9	< 6
Caprolactam	< 6	< 6	< 8	< 5
Decamethylcyclopentasiloxane	< 7	79	30	14
D-Limonene	< 7	23	< 9	< 6
Formaldehyde	33	50	74	48
Naphthalene	< 3	< 3	< 4	< 2
Nonanal	< 7	23	12	6



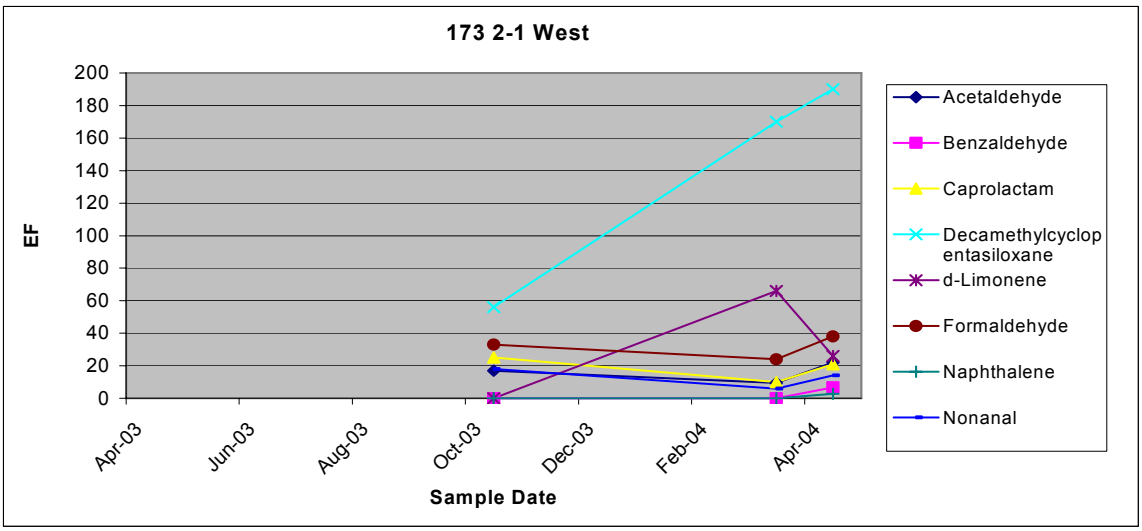
[60] Return air serving building's Center section

Table 3a. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 1-1[61]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[62]	1.6	0.56	0.71
	Concentration (µg/m^3)			
Acetaldehyde		6.2	7.1	15
Benzaldehyde		< 3	< 2	3
Caprolactam		9.8	3.8	9.1
Decamethylcyclopentasiloxane		26	30	31
d-Limonene		3.1	29	8.2
Formaldehyde		15	15	25
Naphthalene		< 1	< 1	1
Nonanal		5	< 2	4.4
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	24	11	26
Benzaldehyde		< 20	< 5	7.1
Caprolactam		62	8.5	26
Decamethylcyclopentasiloxane		170	58	74
d-Limonene		20	65	23
Formaldehyde		65	26	47
Naphthalene		< 7	< 2	2.9
Nonanal		32	< 5	13



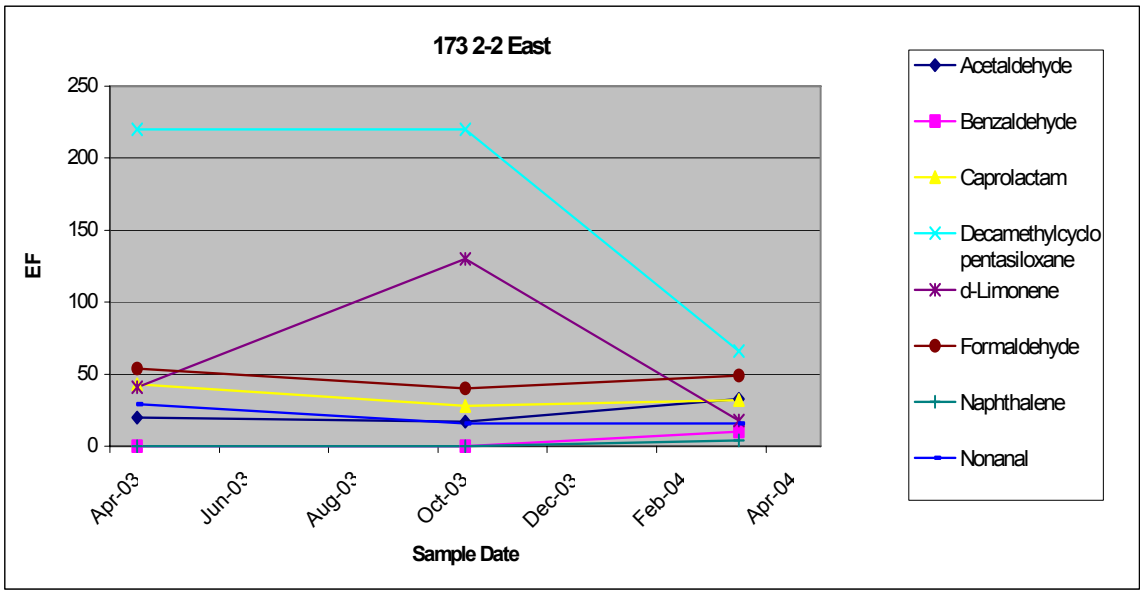
[61] Site located in building's West section and served by AHU 3-1
[62] Ventilation rates not measured on 04-11-03

Table 3b. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 2-1[63]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[64]	0.9	0.59	0.67
	Concentration (µg/m^3)			
Acetaldehyde	3.3	7	6.1	14
Benzaldehyde	< 4	< 3	< 2	3.4
Caprolactam	7.1	7	4.5	7.9
Decamethylcyclopentasiloxane	< 4	16	78	76
d-Limonene	< 4	< 3	28	9.7
Formaldehyde	9.8	14	14	23
Naphthalene	2.5	< 1	< 1	1
Nonanal	24	4.9	2.5	5.3
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnote below	17	9.5	22
Benzaldehyde		< 10	< 6	6.7
Caprolactam		25	10	21
Decamethylcyclopentasiloxane		56	170	190
d-Limonene		< 10	66	26
Formaldehyde		33	24	38
Naphthalene		< 4	< 2	2.7
Nonanal		18	5.9	14



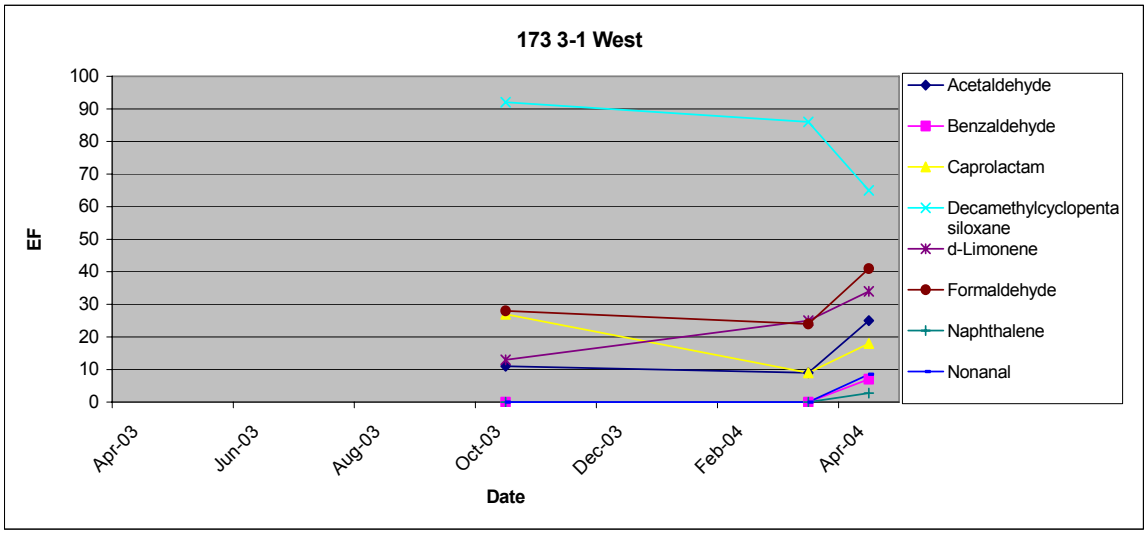
[63] Site located in building's West section and served by AHU 3-1
[64] Ventilation rates not measured on 04-11-03

Table 3c. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 2-2[65]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[66]	1	0.72	1
	Concentration (µg/m³)			
Acetaldehyde	5.9	7.4	7.8	14
Benzaldehyde	< 4	< 3	< 2	3
Caprolactam	5.5	11	9.5	8
Decamethylcyclopentasiloxane	< 4	56	81	21
d-Limonene	32	10	44	4.5
Formaldehyde	14	18	17	21
Naphthalene	< 1	< 1	< 1	< 1
Nonanal	11	7.3	5.7	3.9
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnote below	20	17	33
Benzaldehyde		< 10	< 7	10
Caprolactam		43	28	32
Decamethylcyclopentasiloxane		220	220	66
d-Limonene		41	130	18
Formaldehyde		54	40	49
Naphthalene		< 4	< 3	4.1
Nonanal		29	16	16



[65] Site located in building's East section and served by AHU 3-2
[66] Ventilation rates not measured on 04-11-03

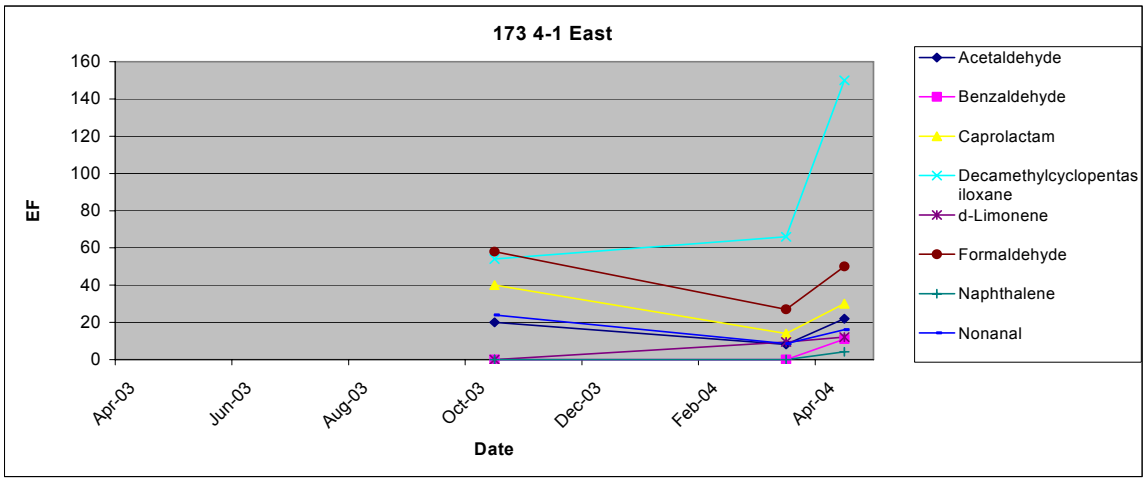
Table 3d. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 3-1[67]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[68]	1	0.56	0.7
	Concentration (µg/m^3)			
Acetaldehyde	5.6	5.1	6.1	14
Benzaldehyde	< 7	< 3	< 2	2.6
Caprolactam	11	6.7	4.1	6.2
Decamethylcyclopentasiloxane	7.6	23	42	28
d-Limonene	7.7	3.3	11	12
Formaldehyde	15	12	14	23
Naphthalene	< 3	< 1	< 1	< 1
Nonanal	29	< 3	< 2	3
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnote below	11	9	25
Benzaldehyde		< 10	< 5	7
Caprolactam		27	9	18
Decamethylcyclopentasiloxane		92	86	65
d-Limonene		13	25	34
Formaldehyde		28	24	41
Naphthalene		< 4	< 2	2.8
Nonanal		< 10	< 5	8.5



[67] Site located in building's West section and served by AHU 3-1
[68] Ventilation rates not measured on 04-11-03

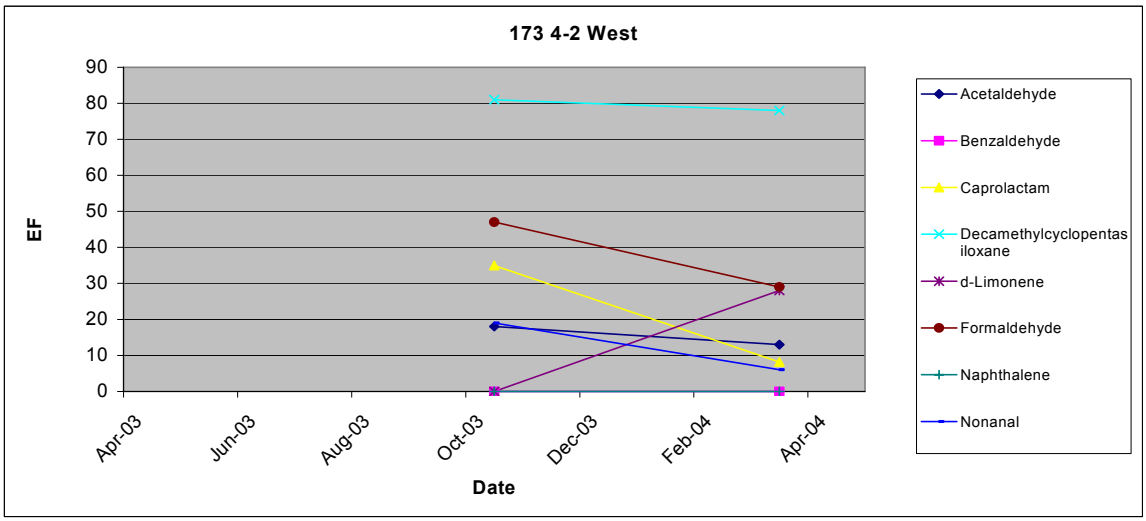
Table 3e. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 4-1[69]

	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[70]	1.2	0.83	1.1
	Concentration (µg/m^3)			
Acetaldehyde	3.3	6.4	4.5	11
Benzaldehyde	< 3	< 3	< 2	3.2
Caprolactam	7	8.4	4.2	7.2
Decamethylcyclopentasiloxane	< 3	11	24	41
d-Limonene	< 3	< 3	2.9	2.9
Formaldehyde	10	17	11	20
Naphthalene	2.4	< 1	< 1	1
Nonanal	28	4.9	2.6	3.8
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnote below	20	8.2	22
Benzaldehyde		< 10	< 8	11
Caprolactam		40	14	30
Decamethylcyclopentasiloxane		54	66	150
d-Limonene		< 10	9.5	12
Formaldehyde		58	27	50
Naphthalene		< 5	< 3	4.2
Nonanal		24	8.6	16



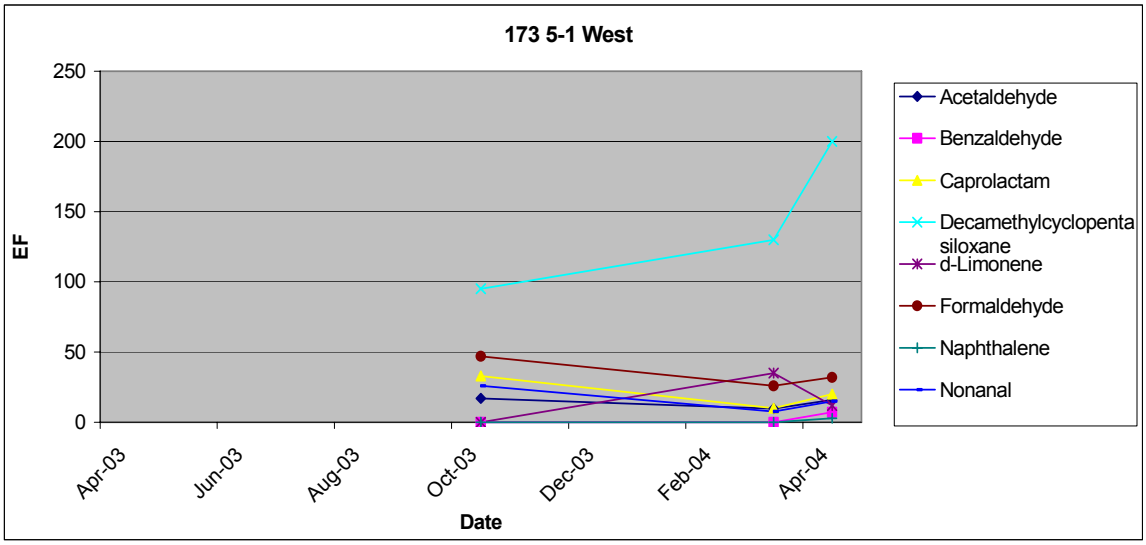
[69] Site located in building's East section and served by AHU 3-2
[70] Ventilation rates not measured on 04-11-03

Table 3f. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 4-2[71]				
	Pre-occupancy[72]	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[73]	1.2	0.61	
	Concentration (µg/m^3)			
Acetaldehyde	See footnotes below	6.2	7.4	
Benzaldehyde		< 3	< 2	
Caprolactam		7.4	3.4	
Decamethylcyclopentasiloxane		17	36	
d-Limonene		< 3	12	
Formaldehyde		15	15	
Naphthalene		< 1	< 1	
Nonanal		4	2.5	
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	18	13	
Benzaldehyde		< 10	< 6	
Caprolactam		35	8.2	
Decamethylcyclopentasiloxane		81	78	
d-Limonene		< 10	28	
Formaldehyde		47	29	
Naphthalene		< 5	< 2	
Nonanal		19	6	



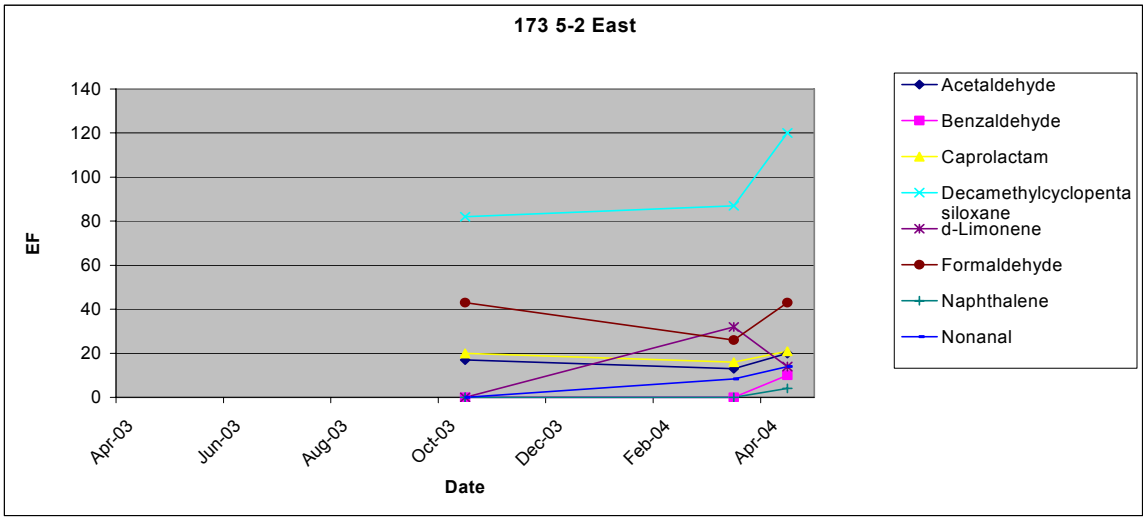
[71] Site located in building's West section and served by AHU 3-1
[72] No VOC samples collected at this location on 04-11-03
[73] Ventilation rates not measured on 04-11-03

Table 3g. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 5-1[74]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[75]	1.1	0.64	0.72
	Concentration (µg/m^3)			
Acetaldehyde	6.3	6.2	5.9	11
Benzaldehyde	< 3	< 3	< 2	3.5
Caprolactam	7	7.5	4	7
Decamethylcyclopentasiloxane	< 3	22	54	74
d-Limonene	< 3	< 3	14	4.3
Formaldehyde	11	16	13	19
Naphthalene	< 1	< 1	< 0.9	1
Nonanal	21	6	3	5
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See notes below	17	9.7	16
Benzaldehyde		< 10	< 6	7.2
Caprolactam		33	10	20
Decamethylcyclopentasiloxane		95	130	200
d-Limonene		< 10	35	12
Formaldehyde		47	26	32
Naphthalene		< 5	< 2	2.9
Nonanal		26	7.6	15



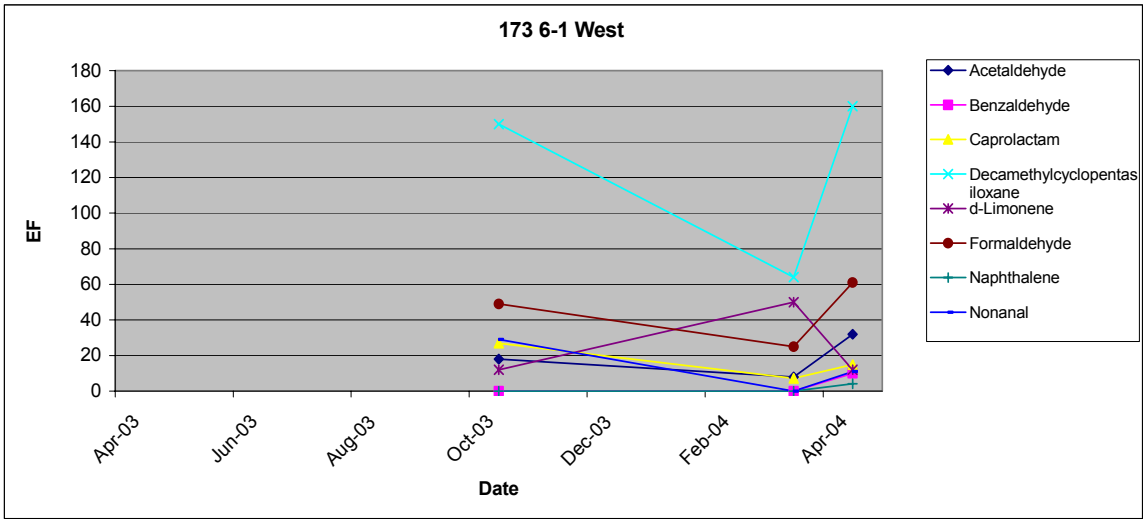
[74] Site located in building's West section and served by AHU 3-1
[75] Ventilation rates not measured on 04-11-03

Table 3h. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 5-2[76]				
	Pre-occupancy[77]	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[78]	1.1	0.84	1
	Concentration (µg/m^3)			
Acetaldehyde	See footnotes below	6.3	5.9	10
Benzaldehyde		< 3	< 2	3.3
Caprolactam		4.5	4.6	5.2
Decamethylcyclopentasiloxane		19	30	33
d-Limonene		< 3	9.5	3.4
Formaldehyde		15	11	19
Naphthalene		< 1	< 1	1
Nonanal		< 3	2.5	3.3
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	17	13	20
Benzaldehyde		< 10	< 8	10
Caprolactam		20	16	21
Decamethylcyclopentasiloxane		82	87	120
d-Limonene		< 10	32	14
Formaldehyde		43	26	43
Naphthalene		< 5	< 3	4.1
Nonanal		< 10	8.4	14



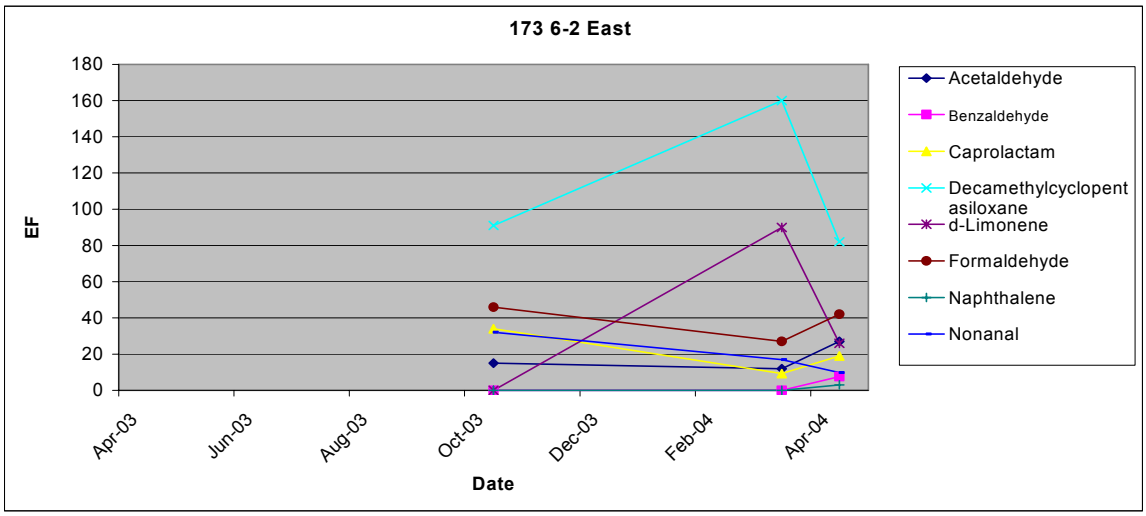
[76] Site located in building's East section and served by AHU 3-2
[77] No VOC data collected at this location on 04-11-03
[78] Ventilation rates not measured on 04-11-03

Table 3i. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 6-1[79]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[80]	1.1	0.59	1.1
	Concentration (µg/m^3)			
Acetaldehyde	4.5	6.5	5.5	13
Benzaldehyde	< 3	< 3	< 2	2.9
Caprolactam	5.9	6.1	3.1	3.5
Decamethylcyclopentasiloxane	< 3	34	31	42
d-Limonene	< 3	2.8	21	2.7
Formaldehyde	25	16	14	23
Naphthalene	2.4	< 1	< 0.9	< 1
Nonanal	19	6.6	< 2	2.6
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde		18	8	32
Benzaldehyde		< 10	< 6	10
Caprolactam		27	7.2	15
Decamethylcyclopentasiloxane		150	64	160
d-Limonene		12	50	12
Formaldehyde		49	25	61
Naphthalene		< 5	< 2	4.2
Nonanal		29	< 6	11



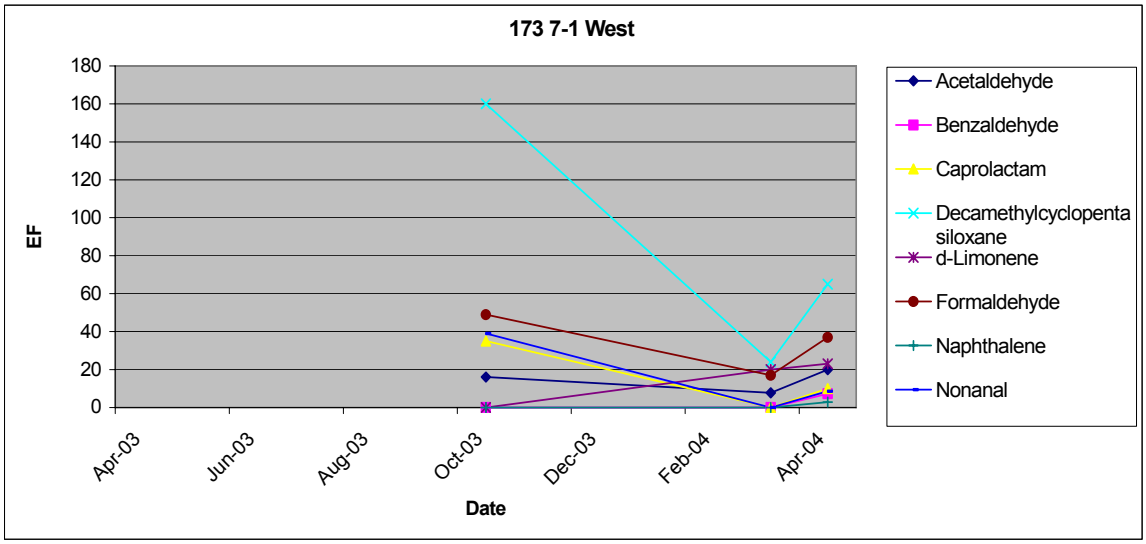
[79] Site located in building's West section and served by AHU 3-1
[80] Ventilation rates not measured on 04-11-03

Table 3j. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 6-2[81]				
	Pre-occupancy[82]	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[83]	1.4	0.87	0.75
	Concentration (µg/m^3)			
Acetaldehyde	See footnotes below	5.1	5.5	14
Benzaldehyde		< 3	< 2	3.3
Caprolactam		6.1	2.6	6.2
Decamethylcyclopentasiloxane		16	49	32
d-Limonene		< 3	26	8.6
Formaldehyde		13	11	23
Naphthalene		< 1	< 1	1
Nonanal		5.8	4.8	3.3
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnotes below	15	12	27
Benzaldehyde		< 20	< 8	7.6
Caprolactam		34	9.2	19
Decamethylcyclopentasiloxane		91	160	82
d-Limonene		< 20	90	26
Formaldehyde		46	27	42
Naphthalene		< 6	< 3	3
Nonanal		32	17	9.8



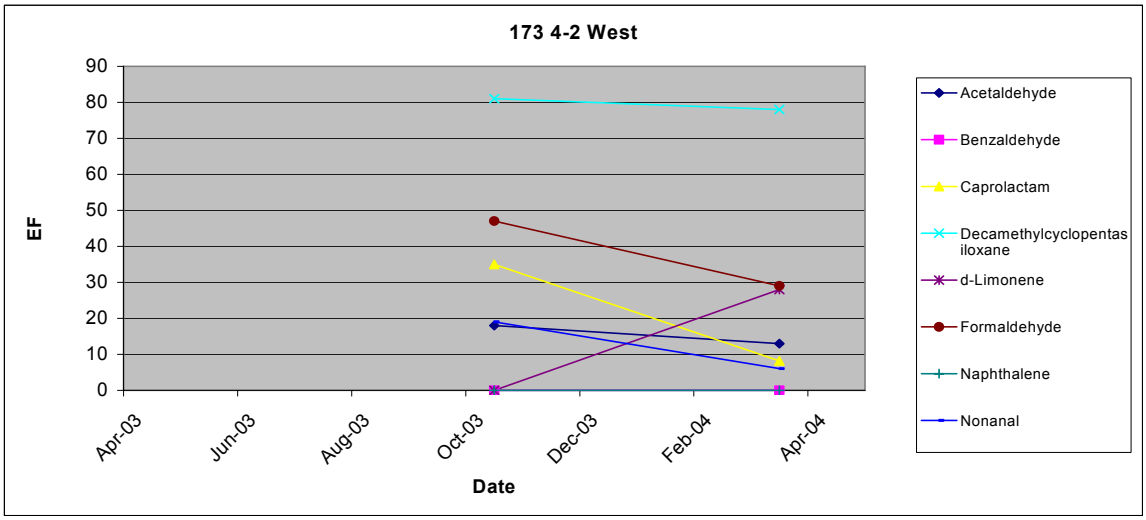
[81] Site located in building's East section and served by AHU 3-2
[82] No VOC data collected at this location on 04-11-03
[83] Ventilation rates not measured on 04-11-03

Table 3k. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 7-1[84]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[85]	1.2	0.67	0.74
	Concentration (µg/m^3)			
Acetaldehyde	8.7	5.6	4.9	12
Benzaldehyde	< 3	< 3	< 2	2.7
Caprolactam	6.1	7.3	< 2	3.5
Decamethylcyclopentasiloxane	< 3	34	13	27
d-Limonene	< 3	< 3	7.3	7.9
Formaldehyde	12	15	9.4	21
Naphthalene	2.2	< 1	< 0.9	< 1
Nonanal	16	8.1	< 2	2.9
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnote below	16	7.7	20
Benzaldehyde		< 10	< 6	7.3
Caprolactam		35	< 5	10
Decamethylcyclopentasiloxane		160	24	65
d-Limonene		< 10	20	23
Formaldehyde		49	17	37
Naphthalene		< 5	< 2	2.9
Nonanal		39	< 6	8.6



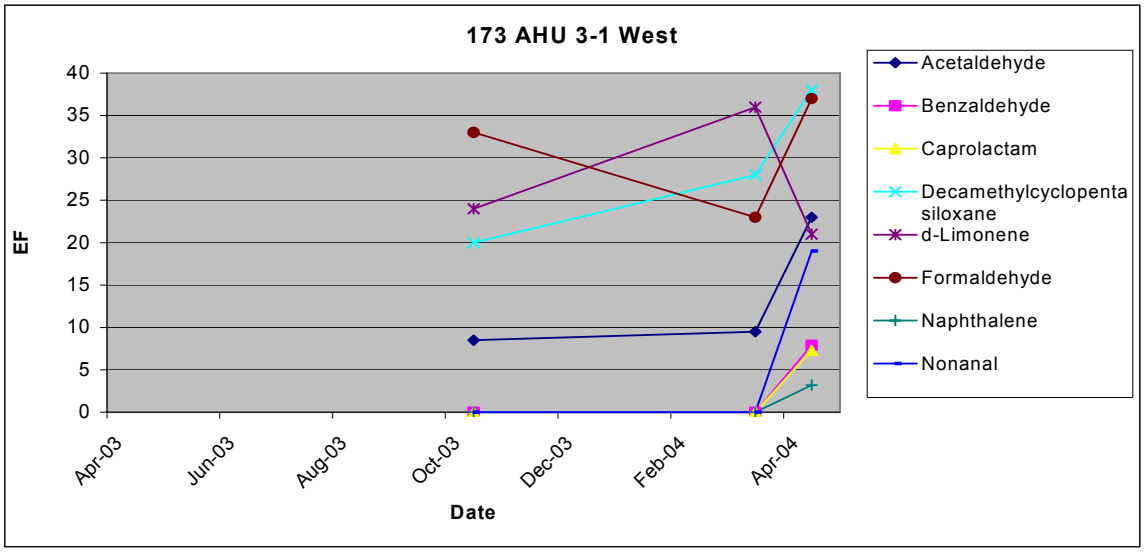
[84] Site located in building's West section and served by AHU 3-1
[85] Ventilation rates not measured on 04-11-03

Table 3l. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 7-2[86]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[87]	1.1	0.88	1
	Concentration (µg/m^3)			
Acetaldehyde	3.1	5.8	2.8	12
Benzaldehyde	< 3	< 3	< 2	3.4
Caprolactam	5.3	5.6	< 2	4.5
Decamethylcyclopentasiloxane	< 3	27	15	22
d-Limonene	< 3	2.6	< 2	3.3
Formaldehyde	9.9	14	6.2	20
Naphthalene	< 1	< 1	< 0.9	1
Nonanal	21	3.9	< 2	3.6
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnote below	15	< 4	25
Benzaldehyde		< 10	< 8	10
Caprolactam		25	< 7	18
Decamethylcyclopentasiloxane		120	38	72
d-Limonene		11	< 8	13
Formaldehyde		41	11	46
Naphthalene		< 5	< 3	< 4
Nonanal		17	< 8	15



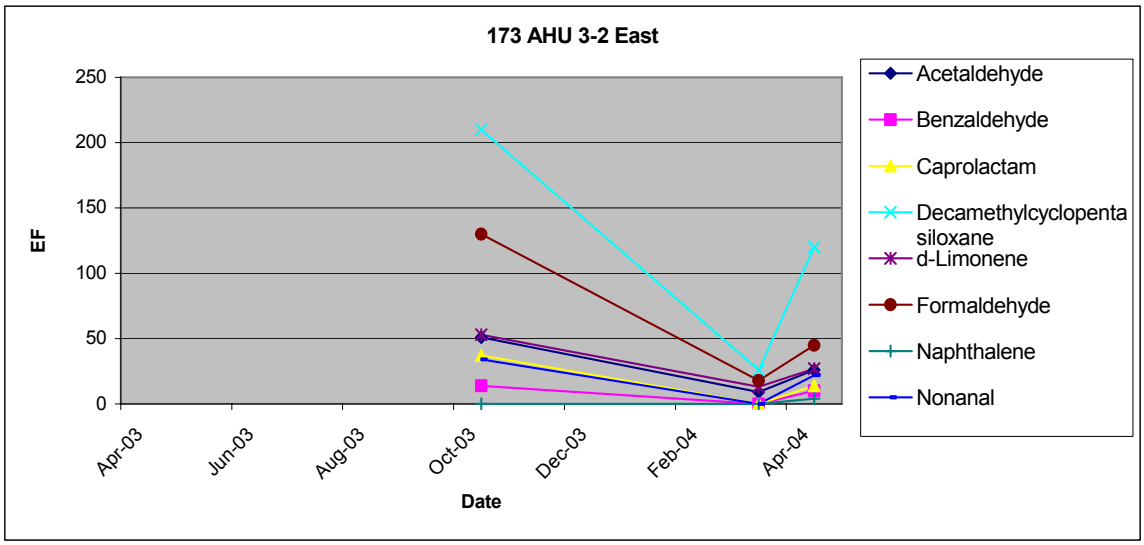
[86] Site located in building's East section and served by AHU 3-2
[87] Ventilation rates not measured on 04-11-03

Table 3m. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 3-1[88]				
	Pre-occupancy[89]	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[90]	1.3	0.6	0.73
	Concentration (µg/m^3)			
Acetaldehyde		3.9	5.7	13
Benzaldehyde		< 2	< 2	< 2
Caprolactam		< 2	< 2	2.3
Decamethylcyclopentasiloxane		3.5	15	17
d-Limonene		4.2	14	6.4
Formaldehyde		11	12	20
Naphthalene		< 1	< 1	< 1
Nonanal		< 2	< 2	5.8
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde		8.5	9.5	23
Benzaldehyde		< 10	< 6	7.9
Caprolactam		< 10	< 6	7.3
Decamethylcyclopentasiloxane		20	28	38
d-Limonene		24	36	21
Formaldehyde		33	23	37
Naphthalene		< 6	< 3	3.2
Nonanal		< 10	< 6	19



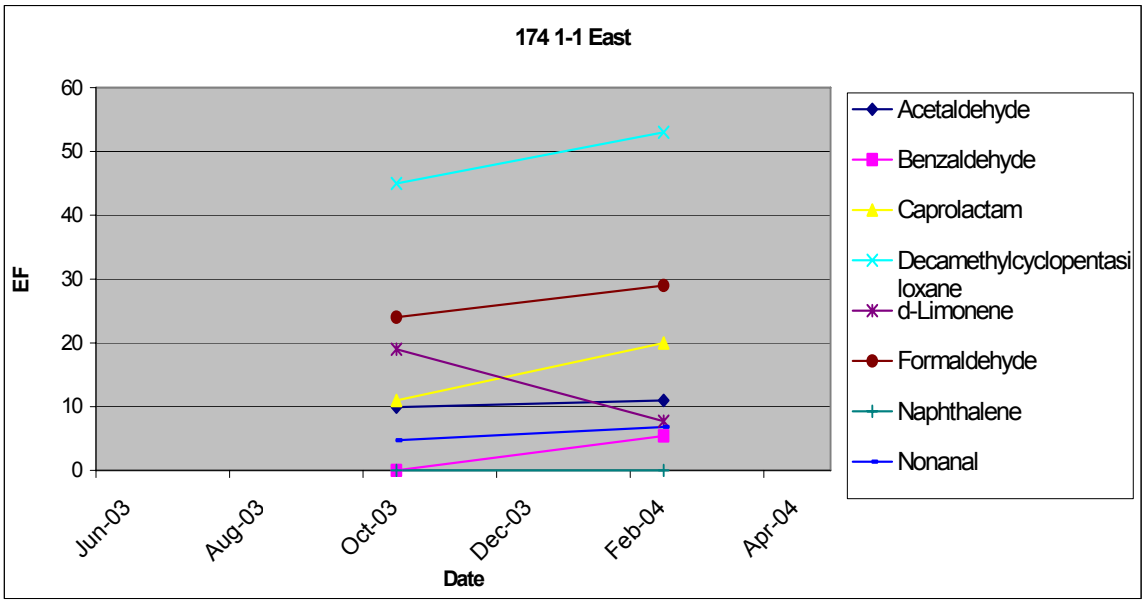
[88] Return air serving building's West section
[89] VOC & aldehyde samples could not be retrieved due to a malfunctioning HVAC door
[90] Ventilation rates not measured on 04-11-03

Table 3l. Building 173: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 3-2[91]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**11-Apr-03**	**29-Oct-03**	**3-Mar-04**	**27-Apr-04**
Air change rate	[92]	1.2	0.75	0.94
	Concentration (µg/m^3)			
Acetaldehyde	3.8	12	4.8	12
Benzaldehyde	2.9	2.7	< 2	2.7
Caprolactam	3.2	7.1	< 2	3.5
Decamethylcyclopentasiloxane	< 3	40	12	33
d-Limonene	3.7	10	4.1	6.6
Formaldehyde	11	30	8.6	20
Naphthalene	1.9	< 1	< 0.9	1
Nonanal	19	6.5	< 2	5.4
	Net Emission Factor (indoors-outdoors) (µg/m2•hr)			
Acetaldehyde	See footnote below	51	9	26
Benzaldehyde		14	< 8	10
Caprolactam		37	< 7	14
Decamethylcyclopentasiloxane		210	26	120
d-Limonene		53	13	27
Formaldehyde		130	18	45
Naphthalene		< 5	< 3	4
Nonanal		34	< 8	22



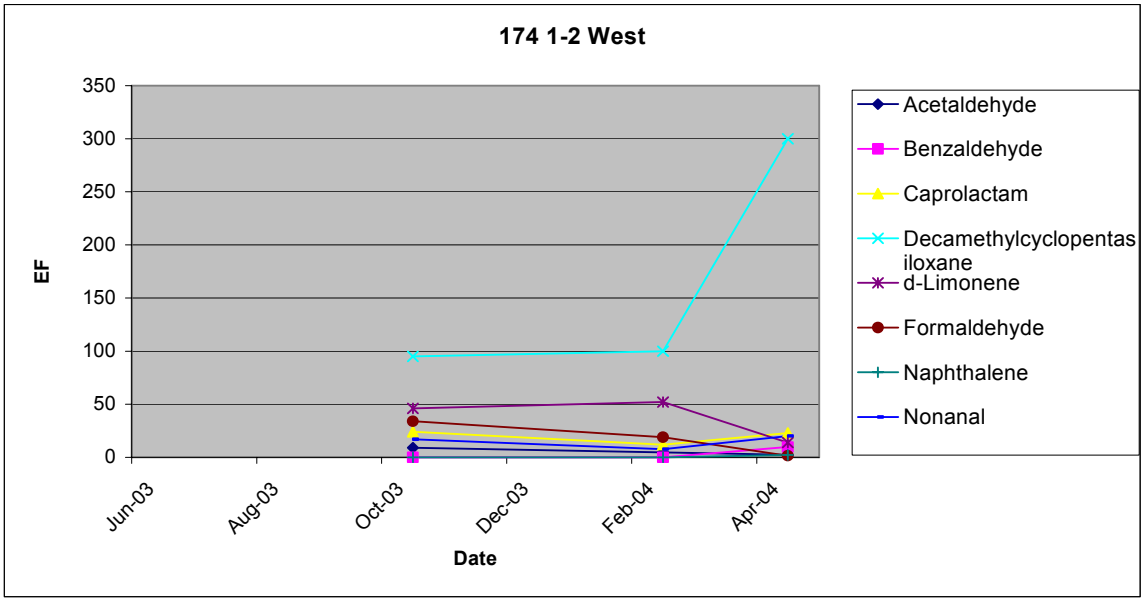
[91] Return air serving building's East section
[92] Ventilation rates not measured on 04-11-03

Table 4a. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 1-1[93]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[94]		0.5	0.6
	Concentration (µg/m^3)			
Acetaldehyde	8.1		6.6	6.8
Benzaldehyde	2.7		< 2	2.3
Caprolactam	9.9		5.6	8.5
Decamethylcyclopentasiloxane	< 3		26	32
d-Limonene	2.9		9.6	3.2
Formaldehyde	27		15	16
Naphthalene	1.8		< 0.9	< 0.9
Nonanal	20		2.3	5.1
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below		9.9	11
Benzaldehyde			< 5	5.4
Caprolactam			11	20
Decamethylcyclopentasiloxane			45	53
d-Limonene			19	7.7
Formaldehyde			24	29
Naphthalene			< 2	< 2
Nonanal			4.7	6.8



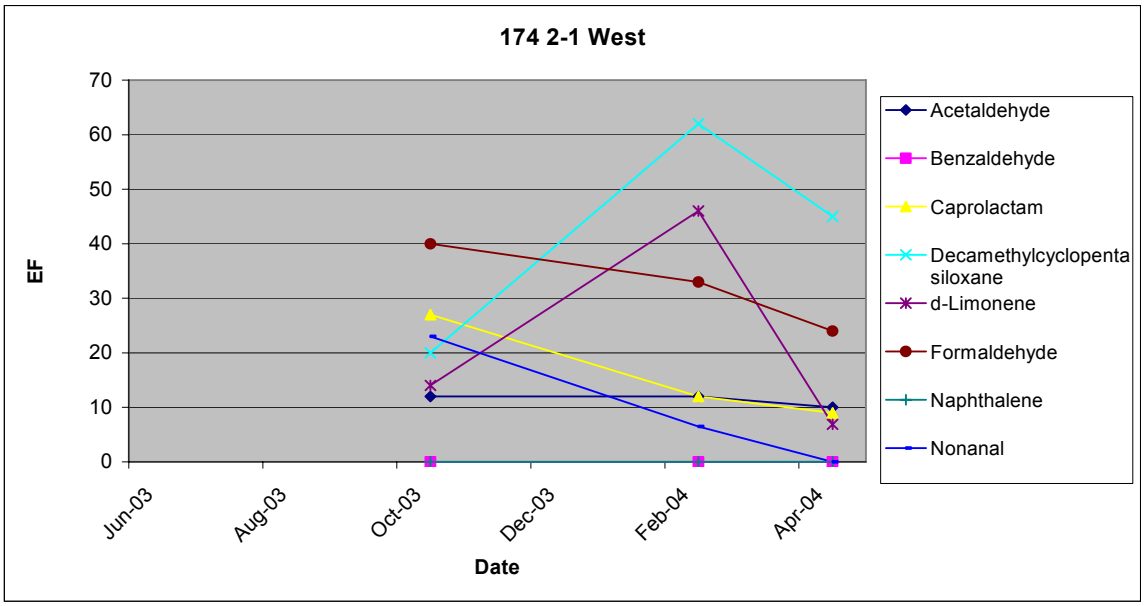
[93] Site located in building's East section and served by AHU 4-1
[94] Ventilation rates not measured on 06-04-03

Table 4b. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 1-2[95]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[96]	1	0.6	0.6
	Concentration (µg/m^3)			
Acetaldehyde	8.1	6.1	3.7	< 1
Benzaldehyde	< 3	< 3	< 3	4
Caprolactam	5.5	6.1	4.9	9.6
Decamethylcyclopentasiloxane	< 3	27	45	130
d-Limonene	< 3	12	22	5.9
Formaldehyde	24	15	11	2.1
Naphthalene	1.9	< 1	< 1	0.93
Nonanal	21	4.2	3.2	11
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	9	4.7	2.4
Benzaldehyde		< 10	< 8	9.6
Caprolactam		24	12	23
Decamethylcyclopentasiloxane		95	100	300
d-Limonene		46	52	14
Formaldehyde		34	19	1.6
Naphthalene		< 5	< 3	2.2
Nonanal		17	7.7	20



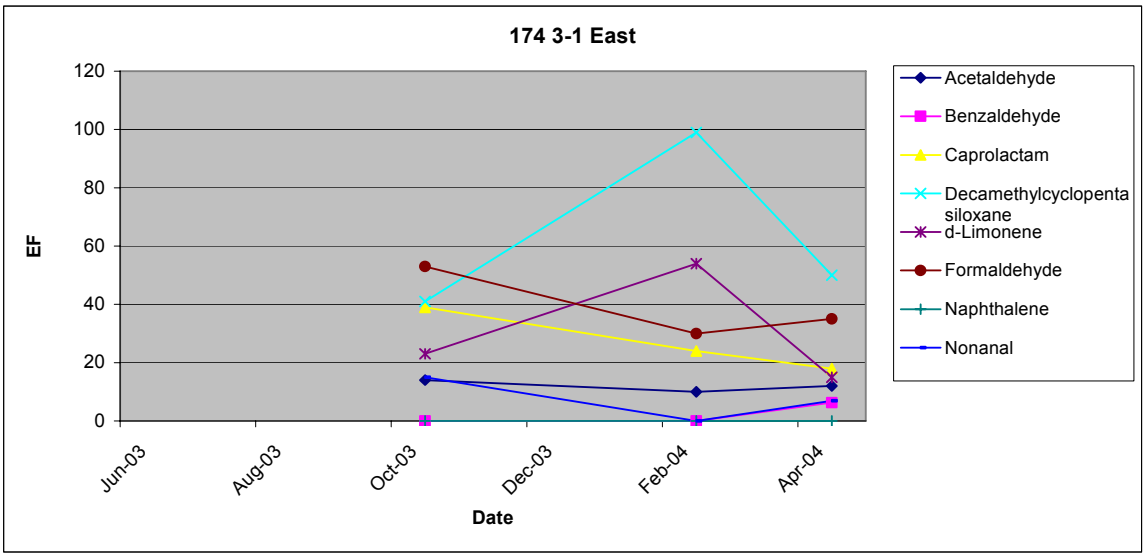
[95] Site located in building's West section and served by AHU 4-2
[96] Ventilation rates not measured on 06-04-03

Table 4c. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 2-1[97]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[98]	1	0.6	0.6
	Concentration (µg/m^3)			
Acetaldehyde	6.1	6.9	6.8	6.5
Benzaldehyde	< 3	< 3	< 2	< 2
Caprolactam	4.1	6.7	5.1	3.7
Decamethylcyclopentasiloxane	< 3	8.4	29	29
d-Limonene	< 3	3.6	19	2.9
Formaldehyde	23	16	16	13
Naphthalene	1.8	< 1	< 0.9	< 0.9
Nonanal	6.6	5.7	2.7	3.8
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	12	12	10
Benzaldehyde		< 10	< 5	< 5
Caprolactam		27	12	9
Decamethylcyclopentasiloxane		20	62	45
d-Limonene		14	46	6.9
Formaldehyde		40	33	24
Naphthalene		< 5	< 2	< 2
Nonanal		23	6.5	< 5



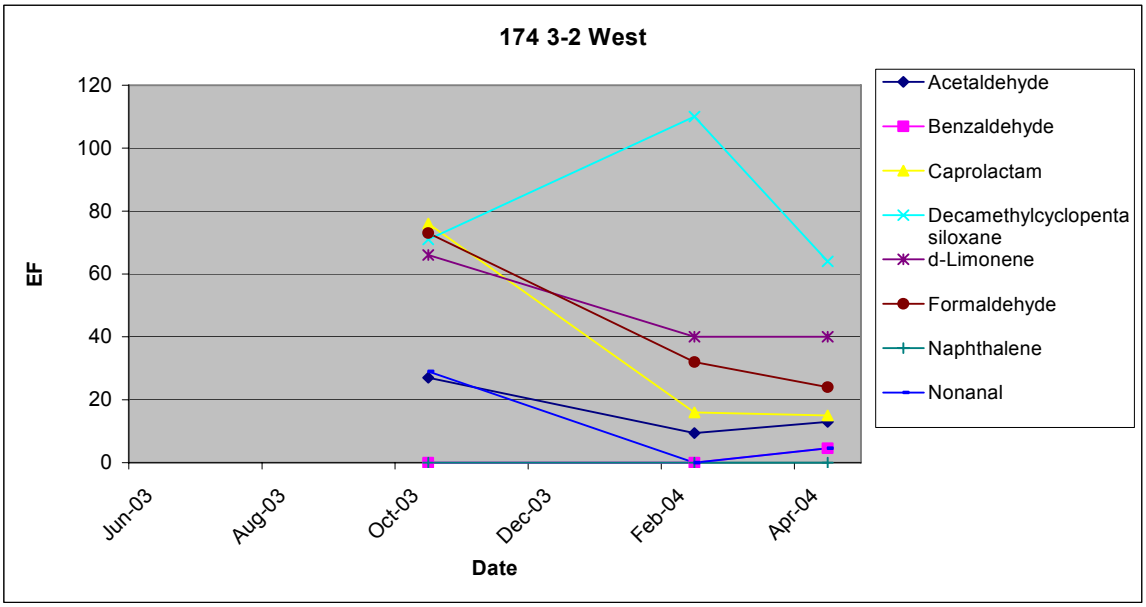
[97] Site located in building's West section and served by AHU 4-2
[98] Ventilation rates not measured on 06-04-03

Table 4d. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 3-1[99]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[100]	1	0.6	0.7
	Concentration (µg/m^3)			
Acetaldehyde	3.6	7.3	5.9	6.4
Benzaldehyde	< 3	< 3	< 3	2.2
Caprolactam	7.9	9.7	10	6.6
Decamethylcyclopentasiloxane	< 3	14	45	28
d-Limonene	< 3	5.8	22	5.4
Formaldehyde	18	19	15	16
Naphthalene	1.8	< 1	< 1	< 0.9
Nonanal	12	3.8	< 3	4.7
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	14	10	12
Benzaldehyde		< 10	< 8	6.3
Caprolactam		39	24	18
Decamethylcyclopentasiloxane		41	99	50
d-Limonene		23	54	15
Formaldehyde		53	30	35
Naphthalene		< 5	< 3	< 2
Nonanal		15	< 8	6.9



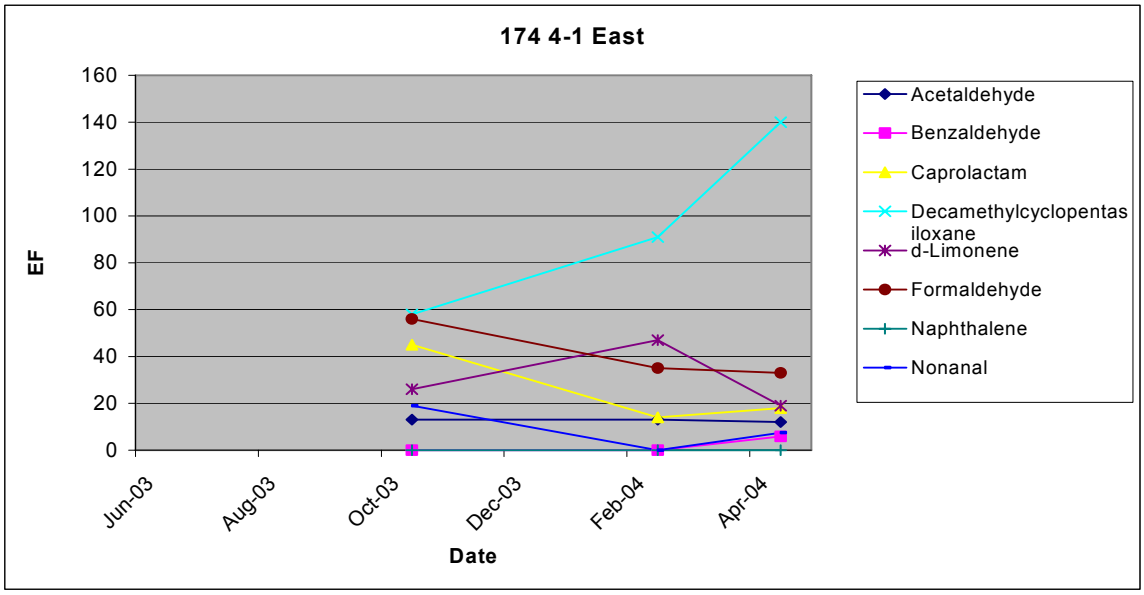
[99] Site located in building's East section and served by AHU 4-1
[100] Ventilation rates not measured on 06-04-03

Table 4e. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 3-2[101]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[102]	1	0.6	0.5
	Concentration (µg/m^3)			
Acetaldehyde	6.7	11	5.6	8.4
Benzaldehyde	< 3	< 3	< 2	2.3
Caprolactam	7.8	19	6.9	7.4
Decamethylcyclopentasiloxane	< 3	21	50	42
d-Limonene	< 3	16	17	20
Formaldehyde	22	24	16	16
Naphthalene	1.8	< 1	< 0.9	< 0.9
Nonanal	20	7.1	< 2	4.5
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	27	9.4	13
Benzaldehyde		< 10	< 6	4.6
Caprolactam		76	16	15
Decamethylcyclopentasiloxane		71	110	64
d-Limonene		66	40	40
Formaldehyde		73	32	24
Naphthalene		< 5	< 2	< 2
Nonanal		29	< 6	4.6



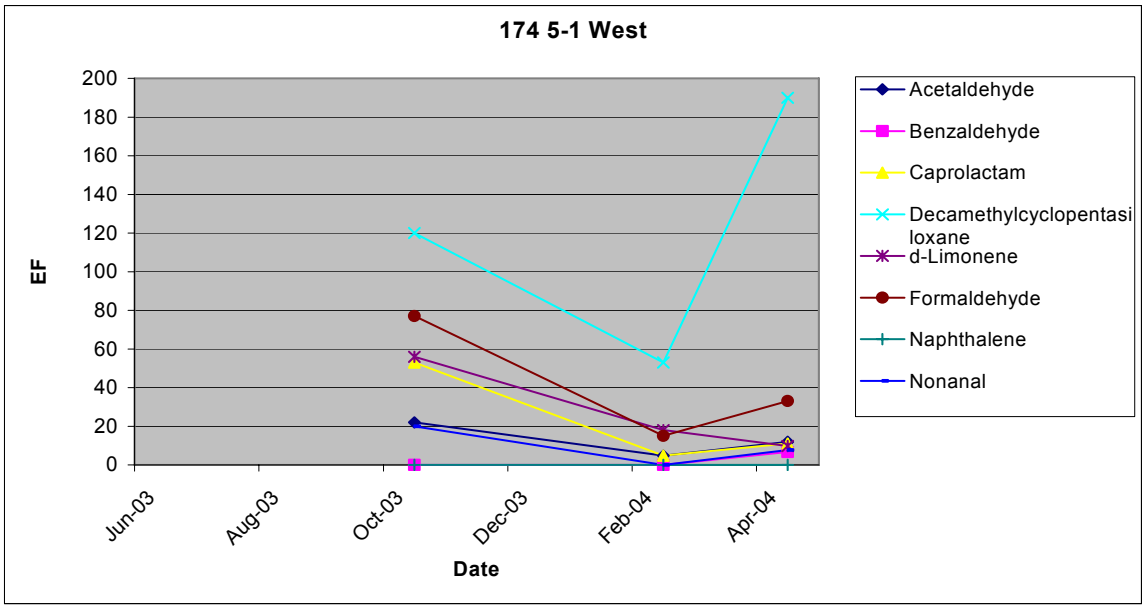
[101] Site located in building's West section and served by AHU 4-2
[102] Ventilation rates not measured on 06-04-03

Table 4f. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 4-1[103]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[104]	1	0.6	0.6
	Concentration (µg/m^3)			
Acetaldehyde	5.4	7.2	7.1	7.2
Benzaldehyde	< 3	< 3	< 2	2.4
Caprolactam	5.4	11	5.9	7.4
Decamethylcyclopentasiloxane	< 3	18	41	68
d-Limonene	< 3	6.5	20	7.7
Formaldehyde	18	20	17	17
Naphthalene	1.8	< 1	< 0.9	< 0.9
Nonanal	10	4.8	< 2	5.3
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	13	13	12
Benzaldehyde		< 10	< 5	5.9
Caprolactam		45	14	18
Decamethylcyclopentasiloxane		58	91	140
d-Limonene		26	47	19
Formaldehyde		56	35	33
Naphthalene		< 5	< 2	< 2
Nonanal		19	< 5	7.5



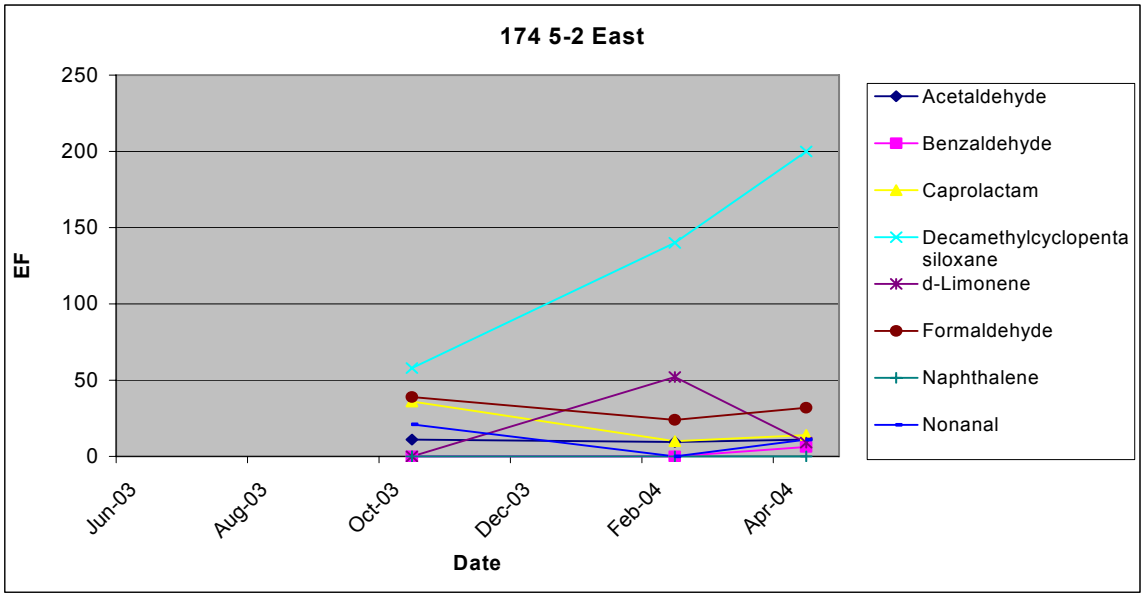
[103] Site located in building's East section and served by AHU 4-1
[104] Ventilation rates not measured on 06-04-03

Table 4g. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 5-1[105]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[106]	1	0.5	0.7
	Concentration (µg/m^3)			
Acetaldehyde	5.9	9.4	4.1	6.2
Benzaldehyde	< 3	< 3	< 2	2.4
Caprolactam	5.9	13	2.3	4
Decamethylcyclopentasiloxane	< 3	33	30	79
d-Limonene	< 3	14	8.9	3.5
Formaldehyde	20	25	9.9	15
Naphthalene	1.8	< 1	< 0.9	< 0.9
Nonanal	9	5	< 2	5
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	22	4.7	12
Benzaldehyde		< 10	< 4	6.7
Caprolactam		53	4.7	11
Decamethylcyclopentasiloxane		120	53	190
d-Limonene		56	18	9.8
Formaldehyde		77	15	33
Naphthalene		< 5	< 2	< 2
Nonanal		20	< 4	7.7



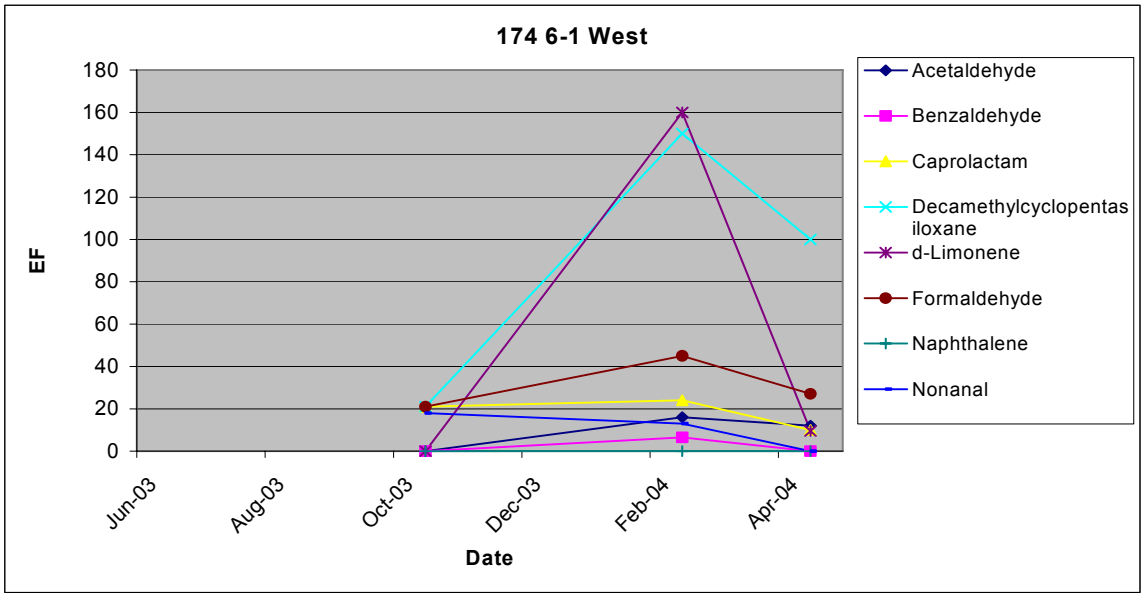
[105] Site located in building's West section and served by AHU 4-2
[106] Ventilation rates not measured on 06-04-03

Table 4h. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 5-2[107]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[108]	1	0.5	0.7
Concentration (µg/m^3)				
Acetaldehyde	4.6	6.7	6.5	6.1
Benzaldehyde	< 3	< 3	< 2	2.2
Caprolactam	6.3	9.1	5	4.9
Decamethylcyclopentasiloxane	< 3	18	71	81
d-Limonene	< 3	< 3	26	3.2
Formaldehyde	14	16	15	15
Naphthalene	1.8	< 1	< 0.9	< 0.9
Nonanal	11	5.3	< 2	6.2
Net Emission Factor (indoors-outdoors) (µg/m^2•hr)				
Acetaldehyde	See footnote below	11	9.5	11
Benzaldehyde		< 10	< 5	6.2
Caprolactam		36	10	14
Decamethylcyclopentasiloxane		58	140	200
d-Limonene		< 10	52	9
Formaldehyde		39	24	32
Naphthalene		< 5	< 2	< 2
Nonanal		21	< 5	11



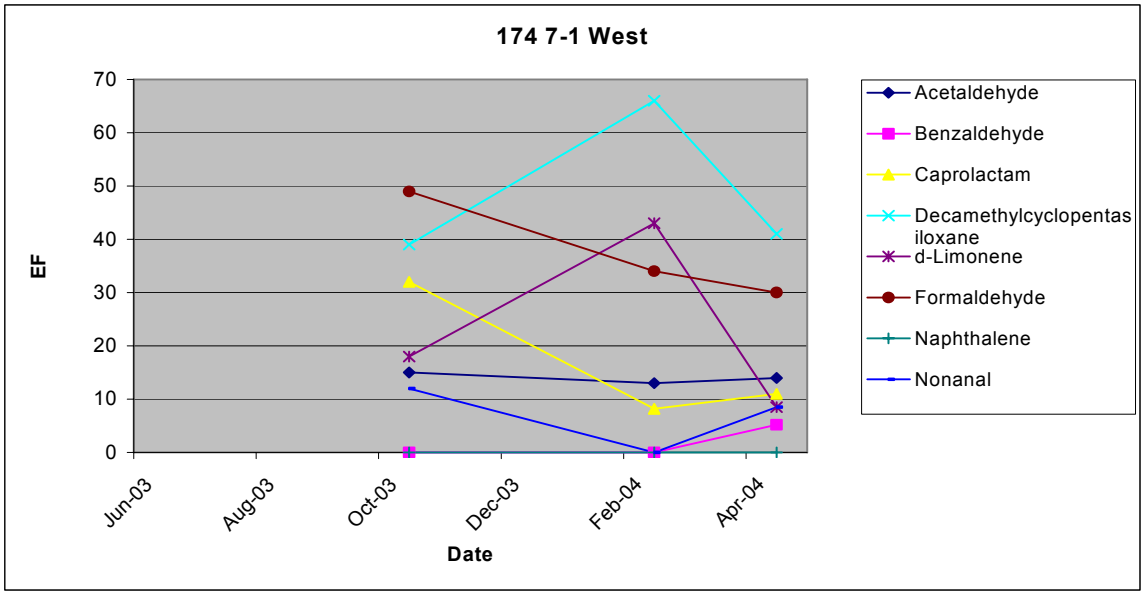
[107] Site located in building's East section and served by AHU 4-1
[108] Ventilation rates not measured on 06-04-03

Table 4i. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 6-1[109]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[110]	1	0.6	0.6
	Concentration (µg/m^3)			
Acetaldehyde	6.3	5	8.6	7.1
Benzaldehyde	2.8	< 3	2.7	< 2
Caprolactam	7	5.4	10	4.2
Decamethylcyclopentasiloxane	< 3	8.7	68	54
d-Limonene	< 3	< 3	66	4
Formaldehyde	21	11	22	15
Naphthalene	1.8	< 1	< 0.9	< 0.9
Nonanal	11	4.6	5.6	4.3
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	< 5	16	12
Benzaldehyde		< 10	6.5	< 5
Caprolactam		21	24	10
Decamethylcyclopentasiloxane		21	150	100
d-Limonene		< 10	160	9.5
Formaldehyde		21	45	27
Naphthalene		< 5	< 2	< 2
Nonanal		18	13	< 5



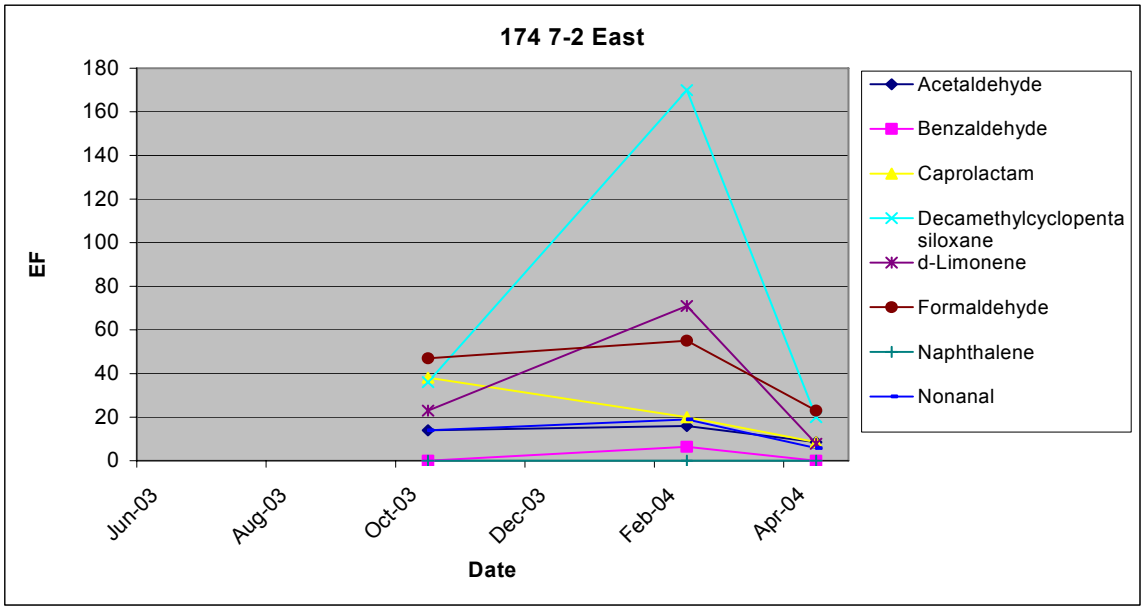
[109] Site located in building's West section and served by AHU 4-2
[110] Ventilation rates not measured on 06-04-03

Table 4j. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 7-1[111]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[112]	**1**	**0.6**	**0.6**
	Concentration (µg/m^3)			
Acetaldehyde	5.7	7.6	7.2	7.8
Benzaldehyde	< 3	< 3	< 2	2.2
Caprolactam	4.8	8	3.4	4.5
Decamethylcyclopentasiloxane	< 3	13	31	27
d-Limonene	< 3	4.5	18	3.5
Formaldehyde	19	18	17	16
Naphthalene	1.8	< 1	< 0.9	< 0.9
Nonanal	11	3.1	< 2	5.8
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	15	13	14
Benzaldehyde		< 10	< 5	5.2
Caprolactam		32	8.2	11
Decamethylcyclopentasiloxane		39	66	41
d-Limonene		18	43	8.5
Formaldehyde		49	34	30
Naphthalene		< 5	< 2	< 2
Nonanal		12	< 5	8.5



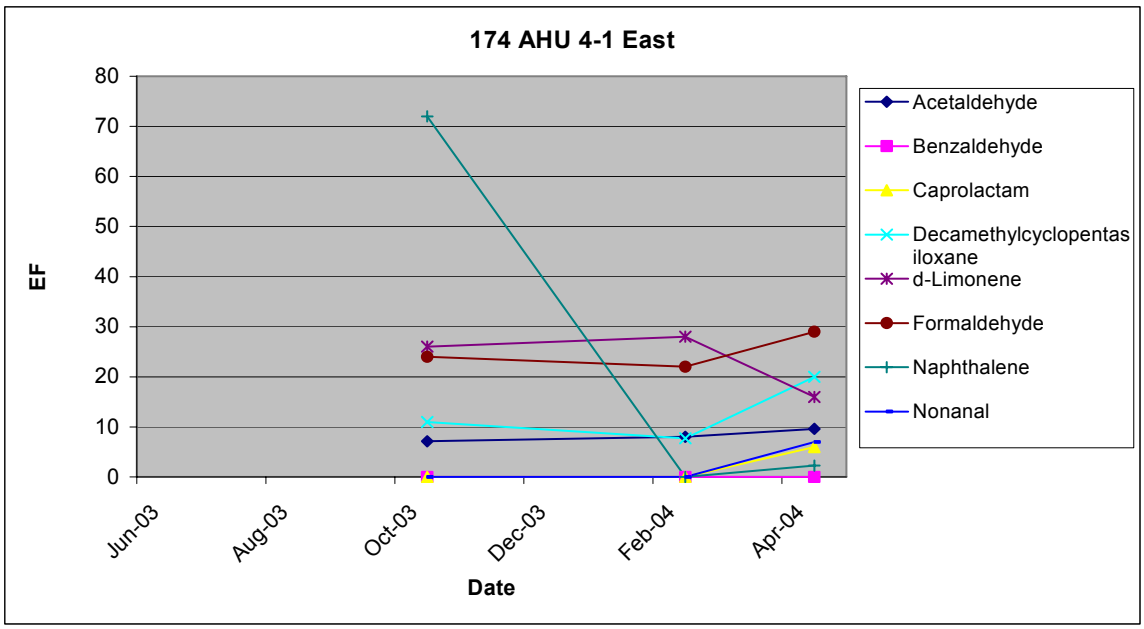
[111] Site located in building's West section and served by AHU 4-2
[112] Ventilation rates not measured on 06-04-03

Table 4k. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 7-2[113]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[114]	1	0.6	0.5
	Concentration (µg/m^3)			
Acetaldehyde	6.9	7.3	8.3	6.4
Benzaldehyde	< 3	< 3	2.7	< 2
Caprolactam	4.7	9.6	8.4	4.2
Decamethylcyclopentasiloxane	< 3	12	76	21
d-Limonene	< 3	5.7	30	3.9
Formaldehyde	22	18	25	15
Naphthalene	1.8	< 1	< 0.9	< 0.9
Nonanal	13	3.4	7.7	5.1
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	14	16	8.5
Benzaldehyde		< 10	6.4	< 4
Caprolactam		38	20	8.5
Decamethylcyclopentasiloxane		36	170	20
d-Limonene		23	71	7.8
Formaldehyde		47	55	23
Naphthalene		< 5	< 2	< 2
Nonanal		14	19	5.8



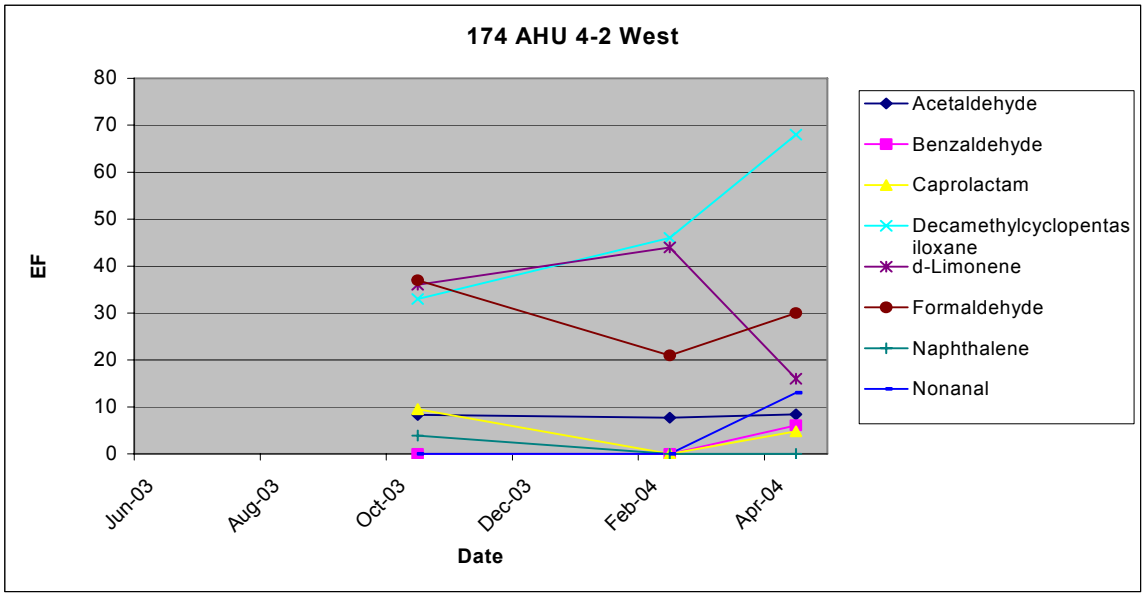
[113] Site located in building's East section and served by AHU 4-1
[114] Ventilation rates not measured on 06-04-03

Table 4I. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 4-1[115]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[116]	1	0.6	0.6
	Concentration (µg/m^3)			
Acetaldehyde	7	5.5	4.8	5.9
Benzaldehyde	< 2	< 3	< 3	2.1
Caprolactam	3.3	< 2	< 3	2.4
Decamethylcyclopentasiloxane	< 2	< 3	< 3	18
d-Limonene	2.6	6.2	11	6.3
Formaldehyde	28	12	11	15
Naphthalene	< 1	17	< 1	0.92
Nonanal	8.7	< 3	< 3	5
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	7.1	8	9.6
Benzaldehyde		< 10	< 8	< 5
Caprolactam		< 10	< 7	6
Decamethylcyclopentasiloxane		11	7.7	20
d-Limonene		26	28	16
Formaldehyde		24	22	29
Naphthalene		72	< 3	2.3
Nonanal		< 10	< 8	7



[115] Return air serving building's East section
[116] Ventilation rates not measured on 06-04-03

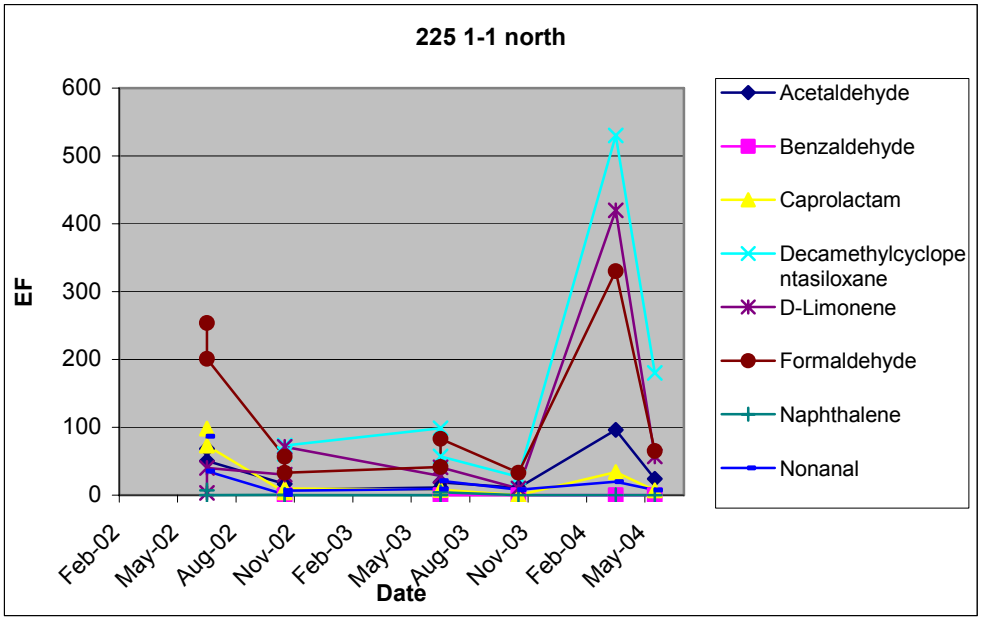
Table 4m. Building 174: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 4-2[117]				
	Pre-occupancy	Post-occupancy		
		#1	#2	#3
Sampling date	**4-Jun-03**	**7-Oct-03**	**4-Feb-04**	**21-Apr-04**
Air change rate	[118]	0.9	0.6	0.6
	Concentration (µg/m^3)			
Acetaldehyde	6.2	6	4.7	5.4
Benzaldehyde	< 3	< 3	< 3	2.4
Caprolactam	3.5	2.5	< 3	1.9
Decamethylcyclopentasiloxane	< 3	12	21	37
d-Limonene	< 3	9.6	17	6.2
Formaldehyde	26	16	11	15
Naphthalene	1.8	1	< 1	< 0.9
Nonanal	8.4	< 3	< 3	7.2
	Net Emission Factor (indoors-outdoors) (µg/m^2•hr)			
Acetaldehyde	See footnote below	8.3	7.7	8.4
Benzaldehyde		< 10	< 8	6.1
Caprolactam		9.5	< 7	4.8
Decamethylcyclopentasiloxane		33	46	68
d-Limonene		36	44	16
Formaldehyde		37	21	30
Naphthalene		3.9	< 3	< 2
Nonanal		< 10	< 8	13



[117] Return air serving building's West section
[118] Ventilation rates not measured on 06-04-03

Table 5a. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 1-1[119]

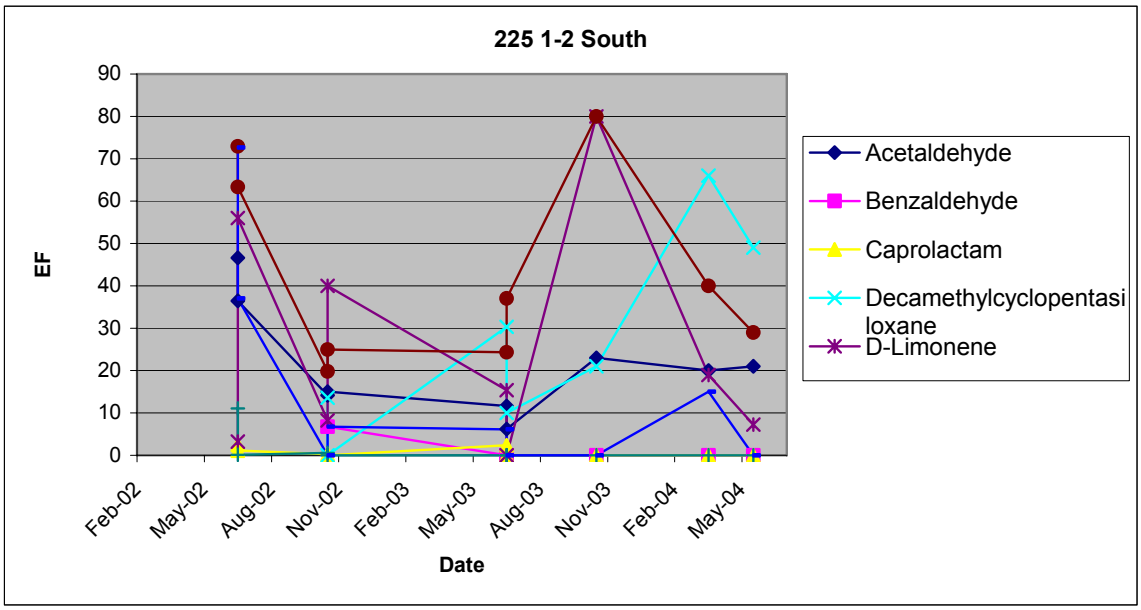
	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/03		10/23/03	3/10/04	5/19/04
Air exchange rate			3.3	1.7	0.7	0.7	0.5	0.5	0.7	1.3	0.6
Concentration (µg/m^3)											
Acetaldehyde			9.1	9.6	7.3	4.3	8	10	5.3	18	11
Benzaldehyde						4.1		< 3	< 2	< 3	< 2
Caprolactam			8.2	11.4	1.6	3.3	4.2	3.5	< 2	5.8	2.6
Decamethylcyclopentasiloxane					21.9	23	49.3	26	8.4	90	66
D-Limonene			0.5	6.3	10.7	23	14.1	18	3.3	72	21
Formaldehyde			25	33	23	13	24	40	15	60	27
Naphthalene			1.0	0.3	0.4	1.6	0.2	1.8	< 1	< 1	< 0.8
Nonanal			8.4	7.1	5.8	7.2	7.6	14	< 2	5.2	2.8
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde			68.2	50.3	16.4	7.9	11.5	19	11	96	24
Benzaldehyde						< 7		< 6	< 8	< 20	< 6
Caprolactam			98.0	72.9	4.3	10	8	7.8	< 7	34.0	7.0
Decamethylcyclopentasiloxane					60.7	73	99	57	27	530	180
D-Limonene			3.1	40.2	30.1	71	28	41	10	420	57
Formaldehyde			253.9	201.0	56.7	33	41.5	83	33	330	65
Naphthalene			7.0	0.0	0.6	< 3	0.2	4.1	< 3	< 8	< 2
Nonanal			86.7	35.5	0.9	6.8	8.91	21	7.8	20	7.6



[119] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

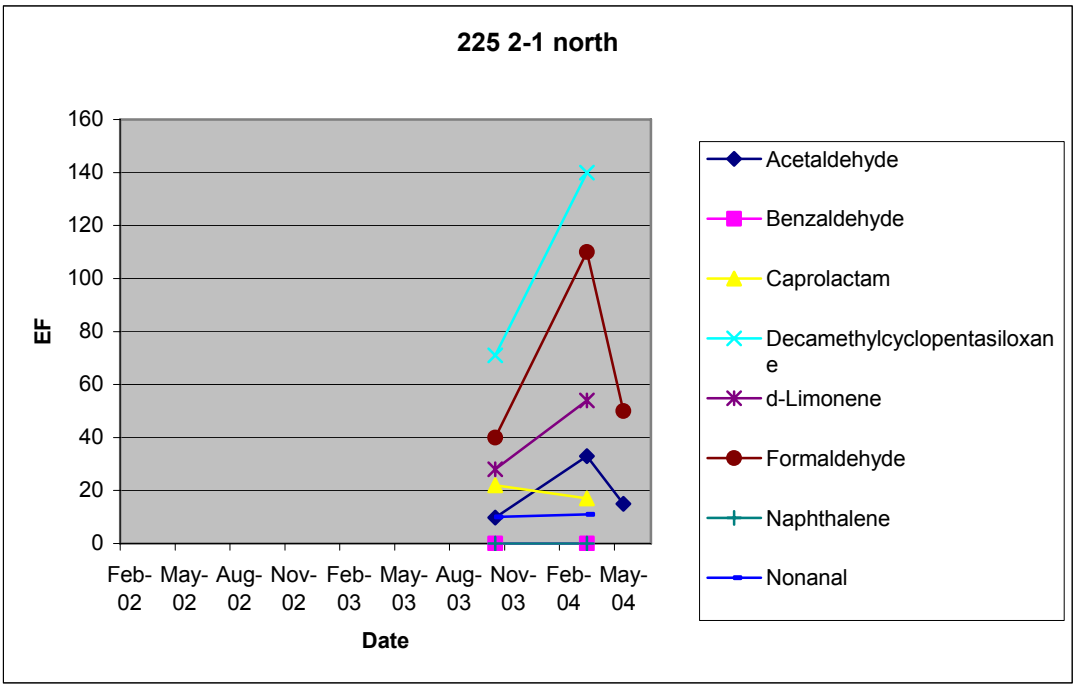
Table 5b. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 1-2[120]

	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/03		10/23/03	3/10/04	5/19/04
Air exchange rate			3.6	1.7	0.7	0.7	0.8	0.8	1.4	1.6	0.8
Concentration (µg/m^3)											
Acetaldehyde			7.2	7.6	6.5	6.7	5.9	3.6	5.6	4.1	7.4
Benzaldehyde						< 2		< 3	< 2	< 2	< 2
Caprolactam			1.0	1.0	0.2	< 2	1	< 2	< 2	< 2	< 2
Decamethylcyclopentasiloxane					5.3	< 2	10	2.9	3.3	9.1	14
D-Limonene			0.5	8.6	3	13	4.9	< 3	13	2.6	2
Formaldehyde			11	13	10	10	11	14	17	8.1	11
Naphthalene			1.3	0.5	0.4	1.7	0.1	< 1	< 1	< 0.8	< 0.8
Nonanal			6.9	7.3	2.2	< 2	5.1	5.9	< 2	< 2	< 2
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde			46.7	36.5	14.2	15.0	11.7	6.2	23.0	20.0	21.0
Benzaldehyde						6.8	0.0	< 9	< 20	< 20	< 7
Caprolactam			2.5	1.1	0.3	< 6	2.4	< 8	< 10	< 10	< 6
Decamethylcyclopentasiloxane					13.6	< 7	30.3	10.0	21.0	66.0	49.0
D-Limonene			3.3	56.0	8.2	40.0	15.4	< 9	80.0	19.0	7.3
Formaldehyde			72.9	63.3	19.8	25.0	24.3	37.0	80.0	40.0	29.0
Naphthalene			11.0	0.2	0.6	< 3	0.0	< 4	< 6	< 6	< 3
Nonanal			72.7	37.0	0.0	6.8	6.2	< 9	< 20	15.0	< 7



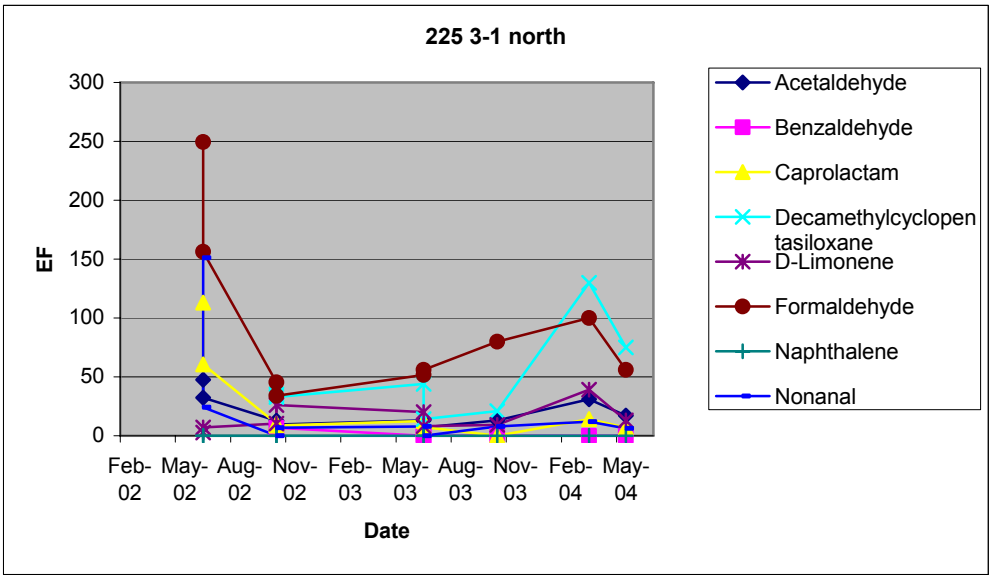
[120] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

Table 5c. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 2-1[121]											
	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/2003		10/23/03	3/10/04	5/19/04
Air exchange rate									0.76	1.3	0.6
Concentration (μg/m^3)											
Acetaldehyde									5.2	7.6	7.5
Benzaldehyde									< 3	< 2	
Caprolactam									7.1	3.2	
Decamethylcyclopentasiloxane									23	28	
d-Limonene									9.4	10	
Formaldehyde									18	24	24
Naphthalene									< 1	< 0.9	
Nonanal									3.4	2.4	
Net emission factor (indoors-outdoors) (μg/m^2•hr)											
Acetaldehyde									9.8	33	15
Benzaldehyde									< 10	< 10	
Caprolactam									22	17	
Decamethylcyclopentasiloxane									71	140	
d-Limonene									28	54	
Formaldehyde									40	110	50
Naphthalene									< 4	< 4	
Nonanal									10	11	



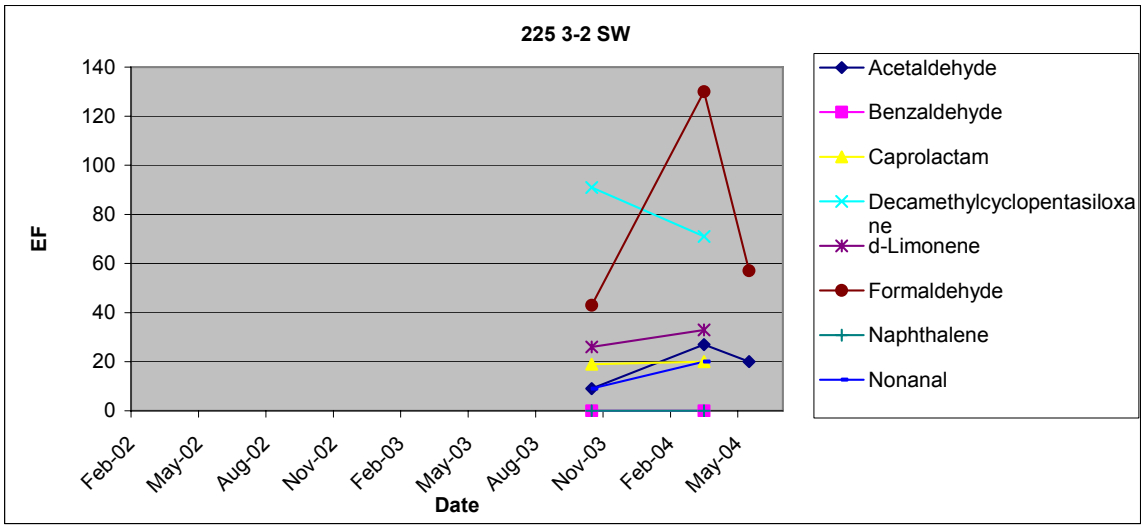
[121] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

Table 5d. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 3-1[122]											
	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/03		10/23/03	3/10/04	5/19/04
Air exchange rate			3.3	1.2	0.7	0.7	0.7	0.7	0.78	1.4	0.6
Concentration (μg/m^3)											
Acetaldehyde			8.0	9.8	6.6	5.2	7.5	4.4	6.2	6.9	8.4
Benzaldehyde						< 2		< 3	< 3	< 2	< 2
Caprolactam			10.3	14.9	4.2	3.1	5.2	2.6	< 2	2.5	2.8
Decamethylcyclopentasiloxane					14.4	12	18.1	5	6.6	23	31
D-Limonene			0.5	2.2	4.2	9.4	8.1	2.9	2.9	7	5.5
Formaldehyde			27.0	40.0	21.0	14	24	23	30	20	26
Naphthalene			0.5	0.3	0.2	1.7	0.1	< 1	< 1	< 0.9	< 0.9
Nonanal			14.7	7.6	3.1	3.4	6.3	5	2.8	2.1	2.6
Net emission factor (indoors-outdoors) (μg/m^2•hr)											
Acetaldehyde			47.5	32.4	12.9	9.5	13.1	7.1	13	31	17
Benzaldehyde						6.7	0.0	< 7	< 8	< 10	< 5
Caprolactam			113.1	60.6	10.3	8.6	12.5	7.4	< 7	14.0	6.7
Decamethylcyclopentasiloxane					35.0	33	44.0	14	21	130	75
D-Limonene			2.7	7.2	10.3	26	20.0	8.1	9.2	39.0	13.0
Formaldehyde			249.5	156.4	45.4	34	51.7	56	80	100	56
Naphthalene			0.0	0.0	0.0	< 3	0.0	< 3	< 3	< 5	< 2
Nonanal			151.1	24.3	0.0	6.7	7.8	< 7	7.8	12	6.3



[122] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

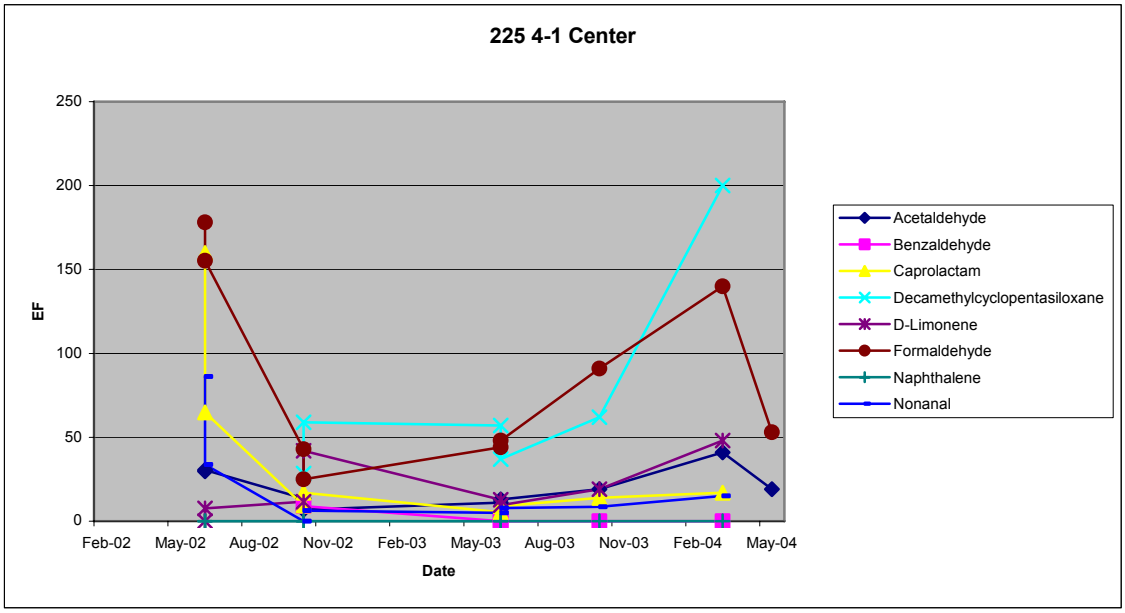
Table 5e. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 3-2[123]											
	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/03		10/23/03	3/10/04	5/19/04
Air exchange rate									0.9	2	0.6
Concentration (µg/m^3)											
Acetaldehyde									4.5	4.7	9.8
Benzaldehyde									< 3	< 3	
Caprolactam									5.2	2.4	
Decamethylcyclopentasiloxane									25	8.9	
d-Limonene									7.1	4.2	
Formaldehyde									17	18	27
Naphthalene									< 1	< 1	
Nonanal									3.1	< 3	
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde									9.1	27	20
Benzaldehyde									< 9	< 20	
Caprolactam									19	20	
Decamethylcyclopentasiloxane									91	71	
d-Limonene									26	33	
Formaldehyde									43	130	57
Naphthalene									< 4	< 8	
Nonanal									9.1	20	



[123] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

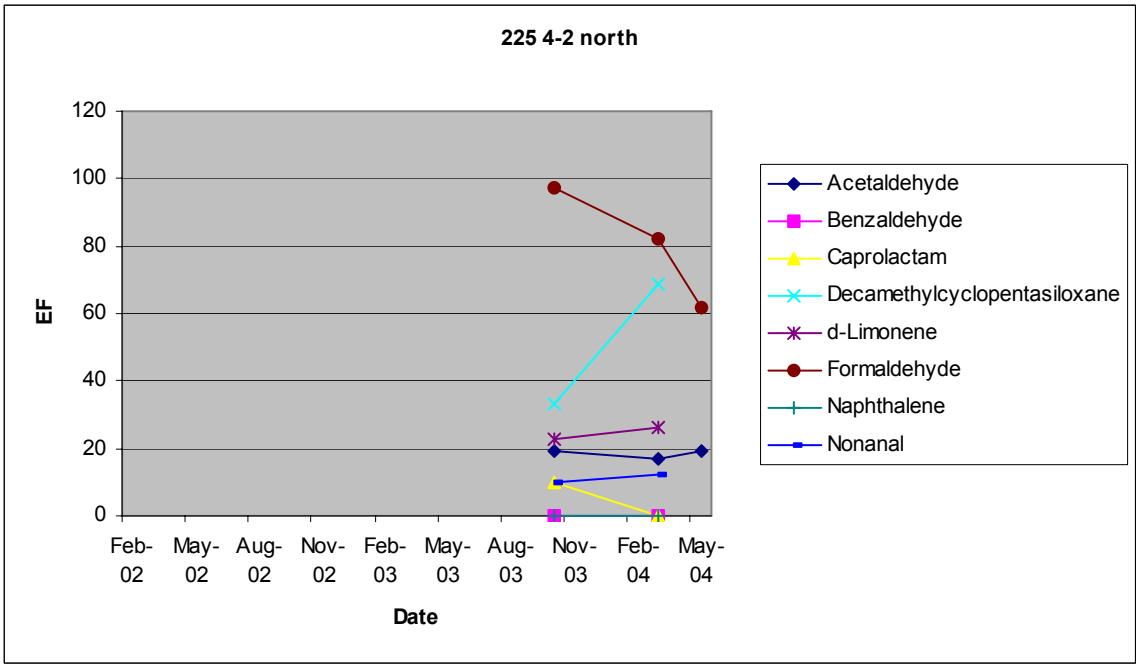
Table 5f. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 4-1[124]

	Pre-Occupancy				Post-Occupancy						
	#1	**#2**	**#3**	**#4**	**#1A**	**#1B**	**#2A**	**#2B**	**#3**	**#4**	**#5**
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02	10/29/02	6/5/03	6/5/03	10/23/03	3/10/04	5/19/04
Air exchange rate			3.3	1.1	0.7	0.7	0.7	0.7	0.86	1.5	0.6
Concentration (µg/m^3)											
Acetaldehyde			6.5	10.0	6.9	4.2	6.7	6.4	7.6	8.2	9.3
Benzaldehyde						5.9		< 3	< 2	< 2	
Caprolactam			14.3	17.2	3.8	6.1	2.4	3.2	4.2	2.8	
Decamethylcyclopentasiloxane					11.8	21	23.3	13	18	33	
D-Limonene			0.3	2.4	4.7	15	5.2	3.4	5.4	8	
Formaldehyde			21.0	43.0	20.0	11	21.0	21	31	26	25
Naphthalene			0.5	0.3	0.2	1.8	0.1	< 1	< 1	< 1	
Nonanal			9.2	10.5	3.4	10	5.2	7.4	2.5	3.2	
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde			29.7	30.5	13.6	6.8	11.1	13.0	19.0	41.0	19
Benzaldehyde						9.0	0.0	< 7	< 9	< 20	
Caprolactam			159.9	64.8	9.3	17.0	5.4	8.9	14.0	17.0	
Decamethylcyclopentasiloxane					28.5	59.0	57.1	37.0	62.0	200.0	
D-Limonene			0.0	7.6	11.6	42.0	12.7	9.6	19.0	48.0	
Formaldehyde			178.2	155.2	42.8	25.0	44.1	48.0	91.0	140.0	53
Naphthalene			0.0	0.0	0.0	< 3	0.0	< 3	< 3	< 6	
Nonanal			86.1	33.8	0.0	6.3	5.0	7.9	8.6	15.0	



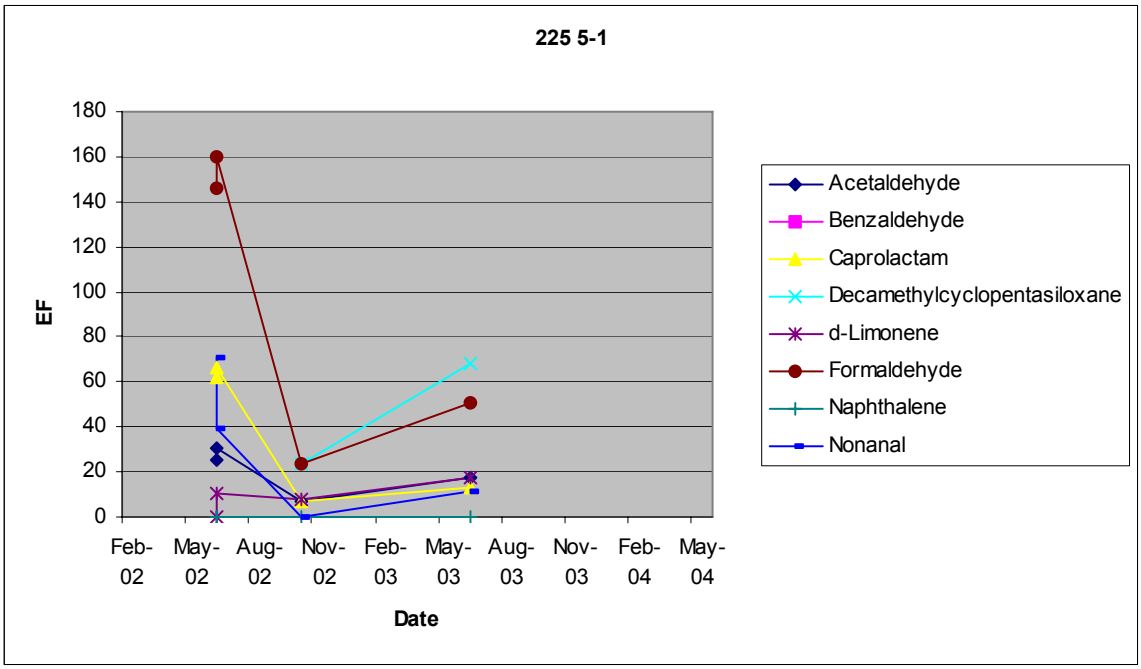
[124] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

Table 5g. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 4-2[125]											
	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/03		10/23/03	3/10/04	5/19/04
Air exchange rate									0.95	1.4	0.6
Concentration (µg/m^3)											
Acetaldehyde									7	4.3	9.5
Benzaldehyde									< 3	< 2	
Caprolactam									2.7	< 2	
Decamethylcyclopentasiloxane									8.7	12	
d-Limonene									6.1	4.6	
Formaldehyde									30	17	29
Naphthalene									< 1	< 0.9	
Nonanal									4.1	< 2	
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde									19	17	19
Benzaldehyde									< 10	< 10	
Caprolactam									10	< 10	
Decamethylcyclopentasiloxane									33	69	
d-Limonene									23	26	
Formaldehyde									97	82	62
Naphthalene									< 4	< 5	
Nonanal									10	12	



[125] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

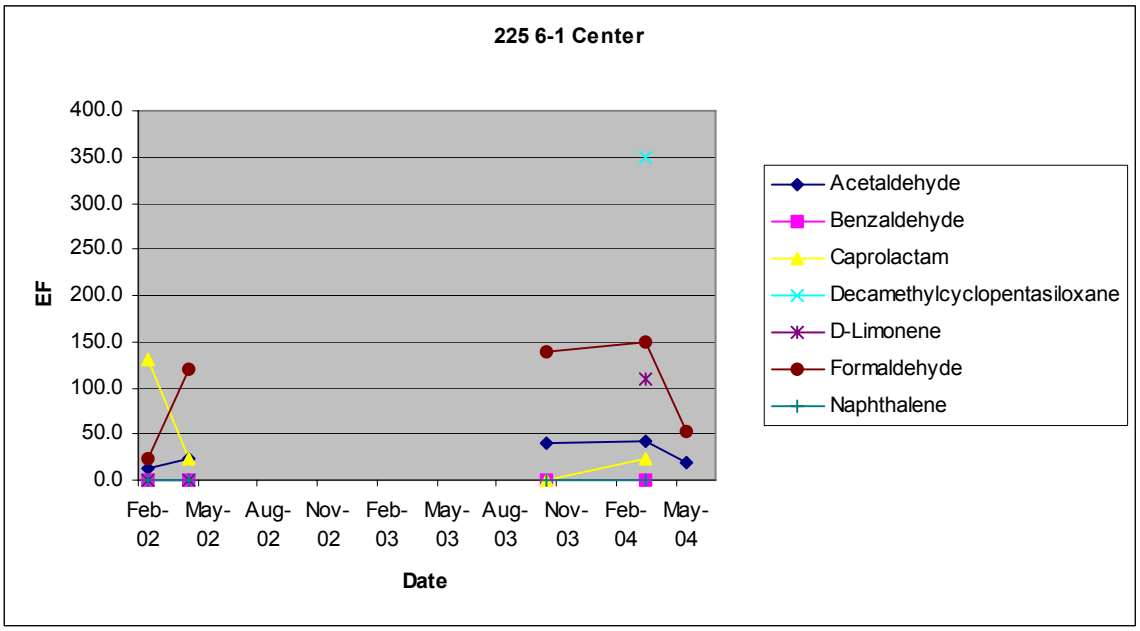
Table 5h. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 5-1[126]							
	Pre-Occupancy				Post-Occupancy		
	#1	#2	#3	#4	#1A	#1B	#2A
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/03
Air exchange rate			2.9	1.3	0.5		0.8
Concentration (ug/m^3)							
Acetaldehyde			6.4	8.9	5.3		8.3
Benzaldehyde							
Caprolactam			6.8	15.0	3.9		4.8
Decamethylcyclopentasiloxane					13.8		24.2
D-Limonene			0.3	2.7	4.4		6.3
Formaldehyde			20	38	16		21
Naphthalene			0.5	0.5	0.2		0.1
Nonanal			8.7	10.4	4.2		7
Net emission factor (indoors-outdoors) (µg/m^2•hr)							
Acetaldehyde			25.1	30.9	6.8		17.3
Benzaldehyde							0.0
Caprolactam			62.3	66.2	6.8		13.1
Decamethylcyclopentasiloxane					23.9		67.8
D-Limonene			0.0	10.2	7.7		17.7
Formaldehyde			146.2	160.1	23.4		50.4
Naphthalene			0.0	0.2	0.0		0.0
Nonanal			70.6	39.7	0.0		10.9



[126] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

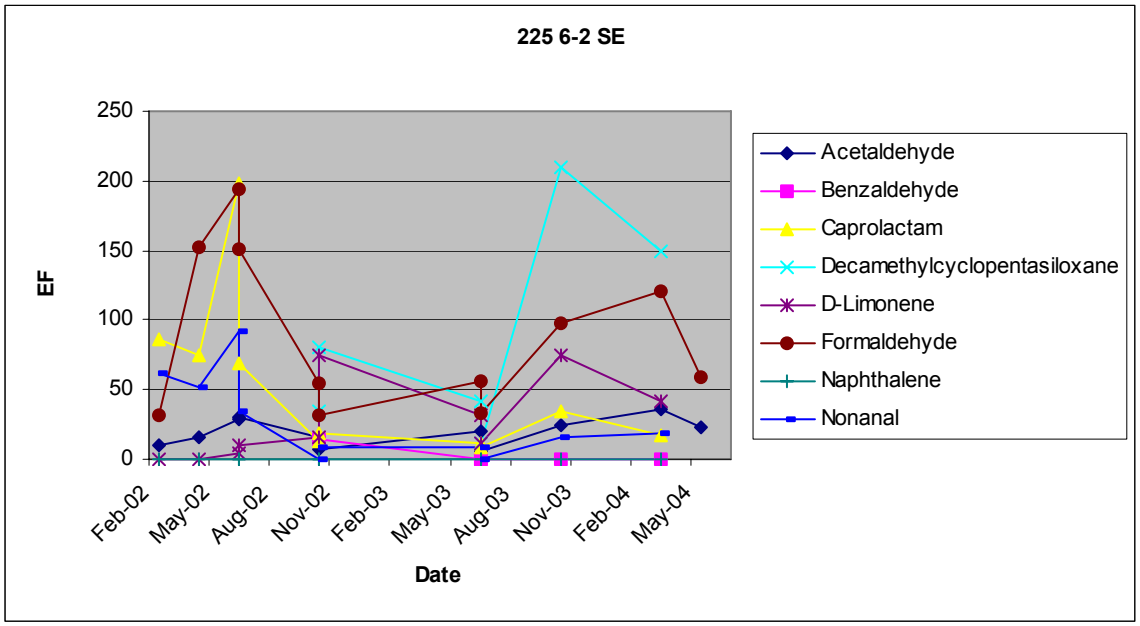
Table 5i. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 6-1[127]

	Pre-Occupancy				Post-Occupancy						
	#1	**#2**	**#3**	**#4**	**#1A**	**#1B**	**#2A**	**#2B**	**#3**	**#4**	**#5**
Sampling date	**2/24/02**	**4/2/02**	**6/25/02**	**6/28/02**	**10/29/02**	**10/29/02**	**6/5/03**	**6/5/03**	**10/23/03**	**3/10/04**	**5/19/04**
Air exchange rate	5.5	4.2							1	1.4	0.6
Concentration (µg/m^3)											
Acetaldehyde	2.8	2.1							11	9	9
Benzaldehyde									< 3	< 2	
Caprolactam	7.3	2.5							< 2	4.1	
Decamethylcyclopentasiloxane										62	
D-Limonene	0.5	6.0								20	
Formaldehyde	4.1	9.2							39	30	25
Naphthalene	0.5	0.5							< 1	< 0.9	
Nonanal	6.6	5.0							< 3	4	
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde	11.9	22.7							39	43	18
Benzaldehyde	0.0	0.0							< 10	< 10	
Caprolactam	130.1	23.1							< 10	23	
Decamethylcyclopentasiloxane	0.0	0.0								350	
D-Limonene	0.0	0.0								110	
Formaldehyde	23.8	119.4							140	150	53
Naphthalene	0.0	0.0							< 4	< 5	
Nonanal	71.6	48.5							11	12	



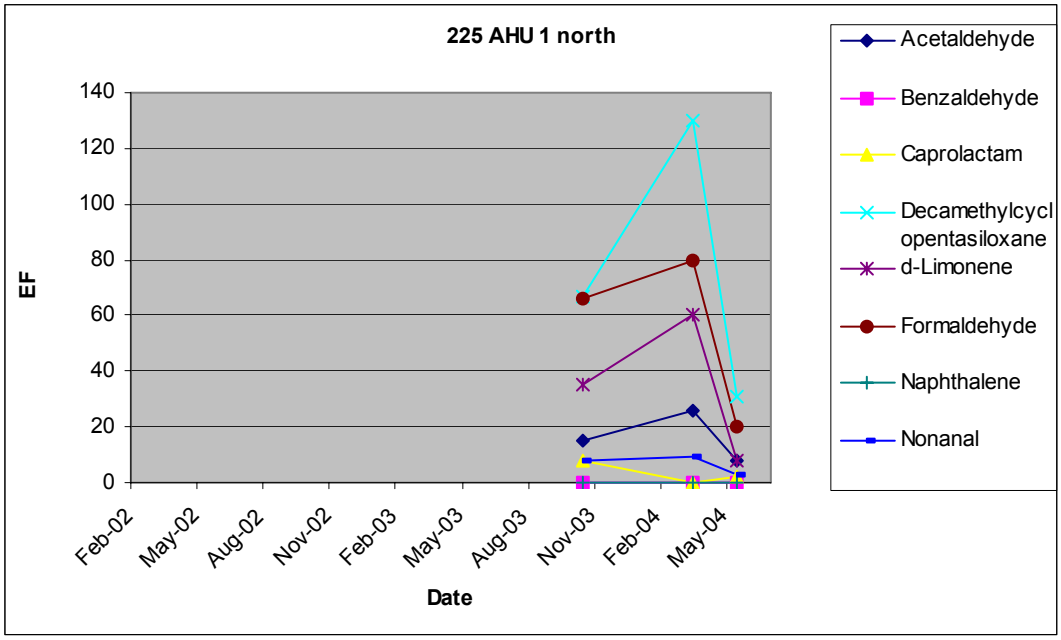
[127] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

Table 5j. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site 6-2[128]											
	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B[129]	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/03		10/23/03	3/10/04	5/19/04
Air exchange rate	3.1	3.0	4.9	1.3	0.9	0.9	0.8	0.8	0.89	2.1	0.7
Concentration (µg/m^3)											
Acetaldehyde	3.1	2.1	5.6	8.7	6.2	3.7	9.1	3.8	8.6	5.6	9.8
Benzaldehyde						6.6		< 3	< 5	< 2	
Caprolactam	8.5	7.9	12.1	15.5	4.1	5.3	4.1	2.6	9.6	2	
Decamethylcyclopentasiloxane					11.3	22	15	3.7	60	17	
D-Limonene	0.5	5.2	0.5	2.7	4.9	20	11.3	3.8	21	4.9	
Formaldehyde	5.7	15.4	17.0	36.0	20.0	11	23	13	32	17	24
Naphthalene	0.2	0.5	0.5	0.3	0.2	1.9	0.1	< 1	< 2	< 0.9	
Nonanal	8.5	6.6	7.1	9.4	4.5	14	6.1	4.7	6.1	< 2	
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde	10.0	16.2	28.2	30.0	15.2	6.7	20	6.4	24	36	23
Benzaldehyde						14	0	< 8	< 20	< 20	
Caprolactam	86.7	74.3	198.0	68.7	13.0	19	11	8.3	34	17	
Decamethylcyclopentasiloxane					35.0	80	41	12	210	150	
D-Limonene	0.0	0.0	3.9	10.2	15.6	74	32	12	75	42	
Formaldehyde	31.2	152.3	194.0	150.7	55.1	32	56.2	33	97	120	59
Naphthalene	0.0	0.0	0.0	0.0	0.0	< 3	0.0	< 3	< 6	< 7	
Nonanal	61.3	51.5	91.5	34.7	0.0	8.2	8.352	< 8	16	19	



[128] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering
[129] Aldehyde pump stopped early

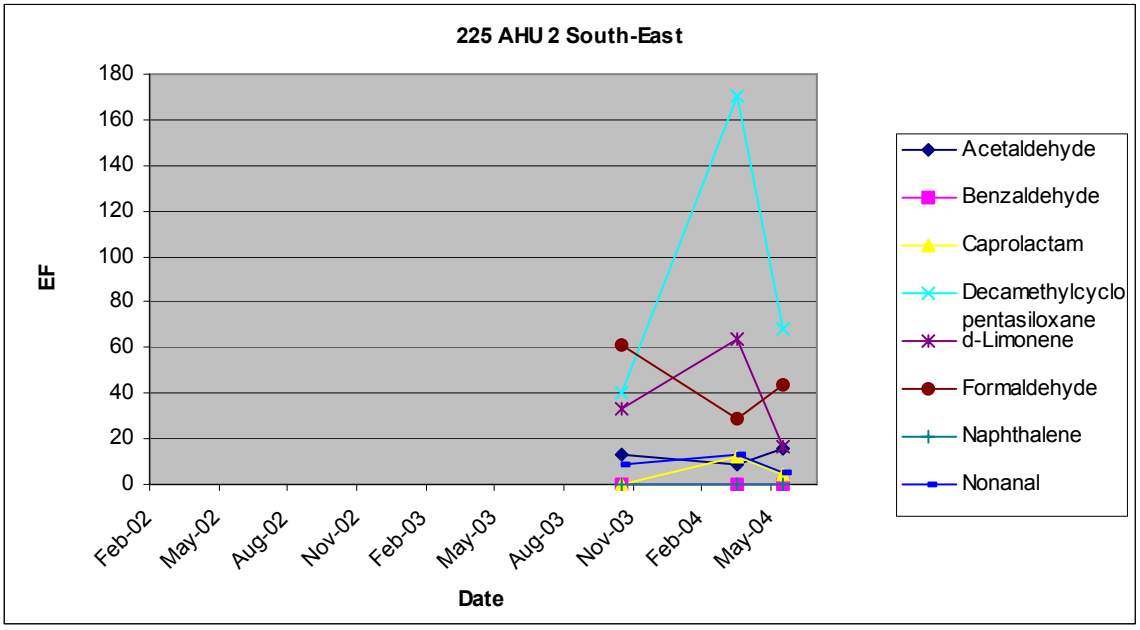
Table 5k. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 1[130]											
	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/03		10/23/03	3/10/04	5/19/04
Air exchange rate									0.93	1.1	0.6
Concentration (µg/m^3)											
Acetaldehyde									6.4	7.8	4.9
Benzaldehyde									< 2	< 2	< 1
Caprolactam									2.4	< 2	1.2
Decamethylcyclopentasiloxane									20	34	14
d-Limonene									10	15	3.6
Formaldehyde									24	23	12
Naphthalene									< 0.9	< 0.9	< 0.5
Nonanal									< 2	< 2	1.3
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde									15	26	7.6
Benzaldehyde									< 8	< 9	< 3
Caprolactam									8.2	< 8	2.5
Decamethylcyclopentasiloxane									67	130	31
d-Limonene									35	60	7.9
Formaldehyde									66	80	20
Naphthalene									< 3	< 4	< 1
Nonanal									8	9.5	2.9



[130] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

Table 5l. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 2[131]

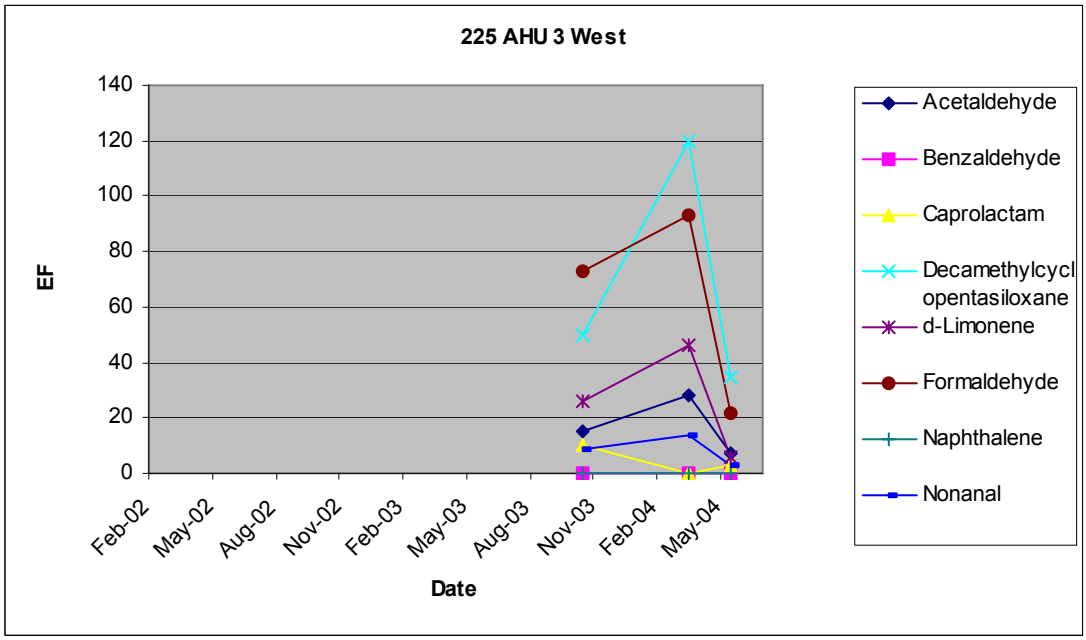
	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02	10/29/02	6/5/03	6/5/03	10/23/03	3/10/04	5/19/04
Air exchange rate									1	1.5	0.6
Concentration (µg/m^3)											
Acetaldehyde									5.6	2.9	8.8
Benzaldehyde									< 2	< 2	< 2
Caprolactam									< 2	2.1	2
Decamethylcyclopentasiloxane									11	31	31
d-Limonene									9	12	7.8
Formaldehyde									21	7.9	23
Naphthalene									< 1	< 0.9	< 0.8
Nonanal									< 2	2.9	2.5
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde									13	8.6	16
Benzaldehyde									< 9	< 10	< 5
Caprolactam									< 8	12	4.4
Decamethylcyclopentasiloxane									40	170	68
d-Limonene									33	64	17
Formaldehyde									61	29	44
Naphthalene									< 4	< 5	< 2
Nonanal									8.8	13	5.4



[131] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

Table 5m. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 3[132]

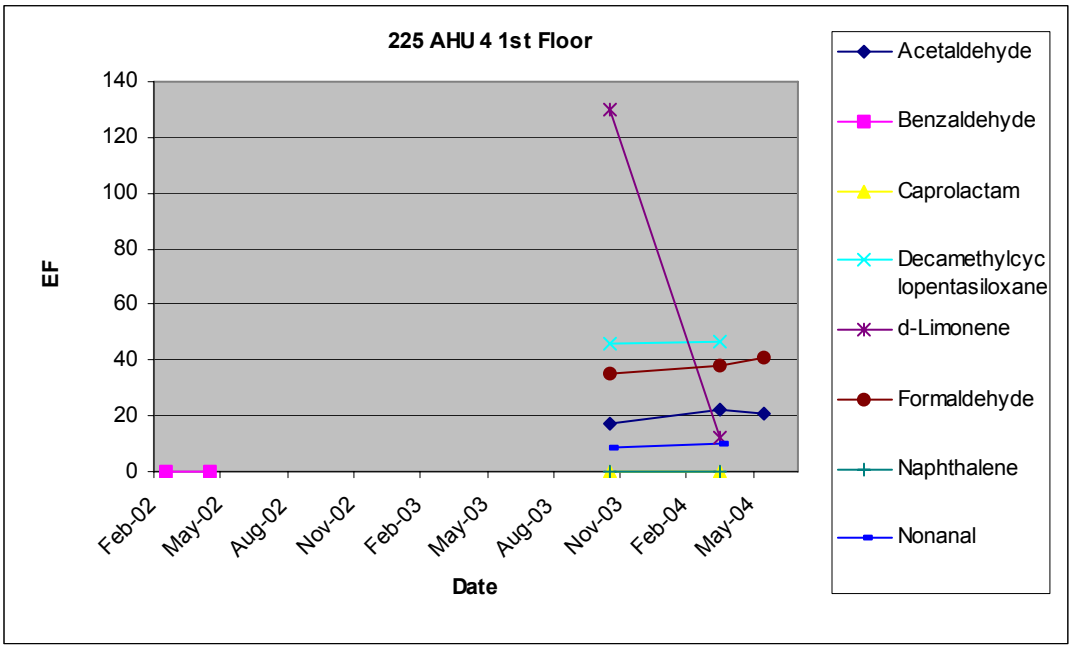
	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/03		10/23/03	3/10/04	5/19/04
Air exchange rate									1	1.6	0.6
Concentration (µg/m^3)											
Acetaldehyde									6.1	6.2	4.9
Benzaldehyde									< 2	< 2	< 1
Caprolactam									2.7	< 2	1.2
Decamethylcyclopentasiloxane									14	21	16
d-Limonene									6.9	7.9	2.8
Formaldehyde									24	19	13
Naphthalene									< 0.9	< 1	< 0.5
Nonanal									2.4	3.6	1.4
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde									15	28	7.5
Benzaldehyde									< 9	< 10	< 3
Caprolactam									10	< 10	2.7
Decamethylcyclopentasiloxane									50	120	35
d-Limonene									26	46	6.1
Formaldehyde									73	93	22
Naphthalene									< 3	< 6	< 1
Nonanal									8.7	14	3



[132] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

Table 5n. Building 225: Summary of Data for Selected Building and Occupant-Related Chemicals for Site AHU 4[133]

	Pre-Occupancy				Post-Occupancy						
	#1	#2	#3	#4	#1A	#1B	#2A	#2B	#3	#4	#5
Sampling date	2/24/02	4/2/02	6/25/02	6/28/02	10/29/02		6/5/03		10/23/03	3/10/04	5/19/04
Air exchange rate									0.94	1.3	0.6
Concentration (µg/m^3)											
Acetaldehyde									6.9	6	11
Benzaldehyde									< 2	< 2	
Caprolactam									< 2	< 2	
Decamethylcyclopentasiloxane									14	10	
d-Limonene									39	2.7	
Formaldehyde									15	11	22
Naphthalene									< 1	< 0.8	
Nonanal									< 2	< 2	
Net emission factor (indoors-outdoors) (µg/m^2•hr)											
Acetaldehyde									17	22	21
Benzaldehyde									< 8	< 10	
Caprolactam									< 7	< 9	
Decamethylcyclopentasiloxane									46	47	
d-Limonene									130	12	
Formaldehyde									35	38	41
Naphthalene									< 3	< 4	
Nonanal									8.3	9.8	



[133] All Pre-Occupancy and Post-Occupancy #1A and 2A data supplied by Indoor Environmental Engineering

APPENDIX A - BUILDING 171: VOC RESULTS

Table A1. Building 171 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-15-03)

Compound Name	CAS Number	Quantitation[134]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
Chemicals with Published CRELs – Analyzed by GC/MS																				
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	1.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	100-41-4	q	2000	y	y		13	1.3	< 1	< 1	< 1	1.2	< 1	1.3	1.4	1	1.5	3	1.9	< 1
Ethylene Glycol	107-21-1	q	400	y				< 20	< 20	< 20	< 10	< 20	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	2.4	< 2	5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	1.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	6.9	< 1	< 1
Phenol	108-95-2	q	200	y			430	6.7	4.5	5.3	5	6.3	6.1	6.6	7.3	4.9	5.4	8.9	7.7	3.1
Styrene	100-42-5	q	900	y			630	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	108-88-3	q	300	y	y		+	5.5	2.4	5.1	3.4	6.3	3.9	6.1	7	4.7	6.5	8.3	5.3	1.9

[134] q: based on calibration standard
u: based on library search

Table A1. Building 171 – Post-Occupancy #1 VOC Concentrations in $\mu g/m^3$ (Data Collected 10-15-03)

Compound Name	CAS Number	Quantitation[134]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	5.8	2.4	4.8	3.1	5.4	3.2	5.9	6.4	4.6	6.3	12	7.7	1.3
o-Xylene	95-47-6	q	700	y			+	1.9	< 1	1.5	< 1	1.7	< 1	1.9	2.1	1.5	2.1	4.2	2.6	< 1
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																				
Acetaldehyde	75-07-0	q	9	y	y		340	9.8	6.1	9.6	6.4	11	< 1	9.5	11	7.7	9.9	13	9.3	2.9
Formaldehyde	50-00-0	q	33	y	y		+	15	9.7	19	9.8	21	< 0.8	16	19	13	17	23	16	2.4
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																				
Acetophenone	98-86-2	u		y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.9	< 1	< 1	< 1	< 1	< 1
2-Butoxyethanol	111-76-2	q		y		20	+	2.1	< 2	< 2	< 2	2.3	< 2	2.2	2.6	< 2	2.7	5.1	2.8	< 2
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		8.7	4.4	12	4.8	9.5	8.4	8.8	11	< 2	< 2	< 2	3.4	< 2
Cumene	98-82-8	q		y			120	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	2.5	< 1	1.8	1.1	1.9	< 1	2.3	2.2	1.7	2.4	5.1	2.7	< 1
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																				
Propionaldehyde	123-38-6	q		y			65	2.8	2.1	2.8	< 1	3	< 1	2.5	3.2	2.2	2.9	3.4	2.2	< 1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																				
Benzaldehyde	100-52-7	q					190	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
Decanal	112-31-2	q					5.9	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
Heptanal	111-71-7	q					23	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
Hexanal	66-25-1	q					58	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	4	< 3	< 2

Table A1. Building 171 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-15-03)

Compound Name	CAS Number	Quantitation[134]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
Nonanal	124-19-6	q					13	5	< 3	4.3	< 3	3.8	< 3	3.7	3.8	< 3	< 2	3.9	3	< 2
Octanal	124-13-0	u					7.2	< 3	< 3	3.9	< 3	2.8	< 3	< 3	< 3	< 3	< 2	5.4	< 3	< 2
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																				
Butyraldehyde	123-73-9	q					28	3	< 1	2.8	< 1	3.7	< 1	3.2	3.2	2.8	3.7	4	3.3	< 1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																				
TVOC as Chlorobenzene-d5	n/a							400	150	290	210	320	240	320	320	290	360	510	580	59
TVOC as Toluene	n/a							260	95	200	130	210	150	200	210	180	230	330	370	36
Abundant Chemicals – Analyzed by GC/MS																				
N-butyl-1-Butanamine	111-92-2	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	22	24	16	51	< 2
Butylcyclohexane	1678-93-9	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
C-10 branched HC (19.0 min)		u						3.1	< 3	3.1	2.6	< 3	< 3	3.2	< 3	3.2	< 2	< 3	< 3	< 2
C-11 branched alkane HC (19.4 min)		u						3.5	< 3	< 3	< 3	< 3	< 3	2.8	< 3	3.1	< 2	< 3	< 3	< 2
C-11 branched HC (20.5 min)		u						3.6	< 3	< 3	3.1	< 3	< 3	3.9	< 3	< 3	< 2	7.1	< 3	< 2
C-11 branched HC (20.9 min)		u						5.4	< 3	< 3	4.4	< 3	< 3	5.7	2.9	< 3	< 2	8.7	< 3	< 2
C-11 branched HC (21.4 min)		u						4.8	< 3	3	3.7	< 3	< 3	5.2	2.8	< 3	< 2	8.4	< 3	< 2
C-11 branched HC (21.5 min)		u						4.9	< 3	< 3	3.5	2.9	< 3	4.9	3.2	< 3	< 2	9.1	5.6	< 2
Cyclohexanone	108-94-1	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
Decamethylcyclopentasiloxane	541-02-6	u						34	12	15	26	37	25	25	26	16	8.9	32	34	< 2
n-Decane	124-18-5	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
Dodecane	112-40-3	u					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	6.6	< 2
2-Ethyl-1-hexanoic Acid	149-57-5	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2

Table A1. Building 171 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-15-03)

Compound Name	CAS Number	Quantitation[134]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
1-Ethyl-3-methylbenzene	620-14-4	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3.2	3.8	< 3	< 3	< 2
n-Heptane	142-82-5	q					+	2.6	< 2	2.4	1.5	3.1	2.9	2.1	2.7	2.2	2.4	2.5	1.7	< 1
Hexamethylcyclotrisiloxane	541-02-6	u						< 3	< 3	< 3	< 3	2.8	< 3	3.2	< 3	< 3	< 2	< 3	< 3	< 2
D-Limonene	5989-27-5	u					+	11	3.3	5.9	8.5	7.5	39	15	5.5	5.8	6.8	27	15	< 2
Methylcyclohexane	108-87-2	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
3-Methylhexane	589-34-4	u						< 3	< 3	3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
N,N-Dibutyl Formamide	761-65-9	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	6.8	14	< 3	26	< 2
n-Nonane	111-84-2	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
alpha-pinene	80-56-8	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
beta-Pinene	127-91-3	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
1-Piperidinecarboxaldehyde	2591-86-8	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	4.9	< 2
1-Propoxy-2-propanol	1569-01-3	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	12	< 3	< 2	< 3	< 3	< 2
Propylene Glycol	57-55-6	u						6.7	< 3	< 3	8.8	4.8	< 3	5.3	< 3	< 3	< 2	< 3	< 3	< 2
Texanol 1 & 3	25265-77-4	q						13	6	7.6	7.3	10	7.9	12	14	< 3	2.7	2.7	14	< 2
Tridecane	629-50-5	u						5.4	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	5.7	< 2
1,2,3-Trimethylbenzene	526-73-8	u						< 3	< 3	3.6	< 3	3.3	< 3	3.9	3.4	3.4	< 2	6.9	< 3	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 2
n-Undecane	1120-21-4	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	2.6	< 3	< 2
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																				
Acetone	67-64-1	q					+	8.7	6	9.5	6	12	< 1	9	11	7.3	10	13	8.6	2.9

Table A2 Building 171 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-24-04)

Compound Name	CAS Number	Quantitation[135]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 3-3	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
Chemicals with Published CRELs – Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 1	< 1	1.4	< 1	< 1	< 1	1	1.2	< 1	< 0.9	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 2	< 3	< 2	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9	< 0.9
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9	< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	1.2	< 0.9	< 0.9	1.4	2	0.95	0.98	< 0.9	1.1	< 0.9	1.4	1.3	1.4	1.2	< 0.9
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 1	< 2	< 1	< 2	< 2	< 1	1.5	< 1	< 1	< 1	< 1	< 1	< 1	1.5	< 1
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 1	< 1
2-Methoxyethanol	109-86-4	q	60	y	y		+	< 3	< 4	< 3	< 4	< 4	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 0.9	< 0.9	< 0.9	< 0.9	0.94	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	0.88	< 0.8	1.2	< 0.9	< 0.9
Phenol	108-95-2	q	200	y			430	5.2	3.4	3.8	13	19	3.9	3.9	3.8	4.1	2.6	4.5	3.7	4.6	4.7	1.2
Styrene	100-42-5	q	900	y			630	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9	< 0.9
Tetrachloroethylene	127-18-4	q	35	y	y		+	1.1	0.95	0.93	1.1	1.1	1.1	0.94	0.88	0.97	0.88	0.94	0.95	1	0.96	< 0.9
Toluene	108-88-3	q	300	y	y		+	4.7	3.5	3	5.8	9.8	3.7	3.6	2.7	3.8	2.4	4.7	4.2	5	4.2	1.1
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 1	< 2	< 1	< 2	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethylene	79-01-6	q	600	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9	< 0.9

[135] q: based on calibration standard
u: based on library search

Table A2 Building 171 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-24-04)

Compound Name	CAS Number	Quantitation[135]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 3-3	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	3.7	2.6	2.2	4.7	6.9	2.8	2.8	2.2	3.1	2.1	4.2	3.9	4.3	3.8	0.96
o-Xylene	95-47-6	q	700	y			+	1.5	1.2	0.98	2	2.7	1.2	1.2	0.94	1.3	0.93	1.7	1.6	1.7	1.5	< 0.9
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	6.9	7.1	7.7	7.2	7.5	7.4	6.9	5.2	6.7	5.6	7.9	7.8	8.4	7.3	< 1
Formaldehyde	50-00-0	q	33	y	y		+	15	14	16	16	16	19	17	13	15	9.4	17	18	18	17	2
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																						
Acetophenone	98-86-2	u		y			+	2.8			2.9		2.4	2.7		2.1		2.5		2	2.2	1.9
2-Butoxyethanol	111-76-2	q		y		20	+	4.4	2.6	2.6	4.2	4.6	3.2	3	1.9	3	1.7	3.4	2.7	4.1	3.1	< 1
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 1	< 2	< 1	4	5.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Caprolactam	105-60-2	q		y		100		8.2	7	7.2	28	38	6.3	8.8	7.3	6.7	5	< 2	< 2	< 2	2.7	< 2
Cumene	98-82-8	q		y			120	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9	< 0.9
Methyl Isobutyl Ketone	-654239	q		y			+	1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	1	< 0.9	< 0.9	< 0.8	1.3	< 0.9	< 0.9
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9	< 0.9
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	1.6	1.1	< 0.9	1.6	2.2	1.2	1.1	< 0.9	1.2	< 0.9	1.5	1.3	1.6	1.4	< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																						
Propionaldehyde	123-38-6	q		y			65	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.8	1.7	< 1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																						
Benzaldehyde	100-52-7	q					190	3	2.4	2.2	2.9	2.8	2.4	2.8	2.3	2.4	2.3	2.6	2.3	2.4	2.7	< 2
Decanal	112-31-2	q					5.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Hexanal	66-25-1	q					58	2.2	< 2	< 2	2.4	< 2	< 2	< 2	< 2	< 2	< 2	3.5	3.3	4.2	3.3	< 2
Nonanal	124-19-6	q					13	5.9	12	5.7	8.5	8.2	5.6	5.4	5.2	4	3.1	4.3	4.5	3.8	2.4	< 2
Octanal	124-13-0	q					7.2	< 2	2.5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table A2 Building 171 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-24-04)

Compound Name	CAS Number	Quantitation[135]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 3-3	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
Pentanal	110-62-3	q					22	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.5	2.9	2.7	< 1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a							380	340	300	580	710	350	340	300	290	180	300	250	370	410	54
TVOC as Toluene	n/a							230	200	180	330	420	200	210	170	170	99	180	150	220	240	28
Abundant Chemicals – Analyzed by GC/MS																						
Benzoic Acid	65-85-0	u														< 2	5.6					14
Butylcyclohexane	1678-93-9	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cyclohexanone	108-94-1	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decamethylcyclopentasiloxane	541-02-6	u						54	40	69	91	93	53	83	42	52	34	47	37	47	74	< 2
n-Decane	124-18-5	q					+	< 2	< 2	< 2	2.3	3.4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-hexanoic Acid	149-57-5	q						< 2	< 2	< 2	3.3	5.3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	3.1	< 2	< 2	6.2	9.4	2.9	3.4	< 2	2.4	< 2	2.6	2.1	2.6	2.7	< 2
n-Heptane	142-82-5	q					+	2.2	1.5	1.9	2.1	2.3	1.8	1.7	< 1	1.8	1.4	2.2	1.9	2	2	< 1
d-Limonene	5989-27-5	q					+	21	35	9.1	11	17	14	12	26	13	2.4	17	7.7	29	28	< 2
Methylcyclohexane	108-87-2	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Nonane	111-84-2	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Octane	111-65-9	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
alpha-pinene	80-56-8	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Texanol 1 & 3	25265-77-4	q						18	12	9.6	31	34	13	12	8.7	12	8.1	< 2	< 2	5.9	12	< 2
1,2,3-Trimethylbenzene	526-73-8	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table A2 Building 171 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-24-04)

Compound Name	CAS Number	Quantitation[135]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 3-3	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
1,3,5-Trimethylbenzene	108-67-8	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	< 2	< 2	< 2	< 2	2.5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetone	67-64-1	q					+	17	14	19	18	17	18	16	12	12	9.4	17	16	14	13	3.3

Table A3 Building 171 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 06-02-03)

Compound Name	CAS Number	Quantitation[136]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 3-3	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
Chemicals with Published CRELs – Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	< 0.9	1.6	1.1	2	1.6	1.4	< 0.9	1.1	1.3	1.1	1.6	0.95	1.5	1.1	< 0.9
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	6.3	6.4	< 2	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	1	1.3	1.2	1.6	< 1	1.2	1.8	1.8	1.2	< 1	< 1	1.4	1.5	< 1
2-methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Phenol	108-95-2	q	200	y			430	3.3	5.5	5.8	7.6	5.8	4.9	3.8	5.5	4.7	4.1	5.1	3.5	5.4	4.9	< 0.9
Styrene	100-42-5	q	900	y			630	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9

[136] q: based on calibration standard
u: based on library search

Table A3 Building 171 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 06-02-03)

Compound Name	CAS Number	Quantitation[136]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 3-3	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Toluene	108-88-3	q	300	y	y		+	5.9	7.8	7.4	12	12	7.7	6.2	7.4	7.6	7.2	4	5.4	3.5	3.6	3.6
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	4.9	7.6	5.6	9.4	8.1	6.5	4.8	5.6	6.2	5.8	6.9	4.9	7.1	5.8	2
o-Xylene	95-47-6	q	700	y			+	1.4	2.3	1.7	3.2	2.5	2	1.3	1.7	1.9	1.7	2.2	1.3	2.1	1.7	< 0.9
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	11	14	10	8.7	10	11	10	9.5	10	9.6	3.5	11	11	12	3.1
Formaldehyde	50-00-0	q	33	y	y		+	22	21	20	19	19	20	21	21	20	18	5.2	21	20	22	5.3
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																						
Acetophenone	98-86-2	u		y			+	2.3	3.5	2.9	2.7	1.4	2.9	2.3	2.6	< 1	2.7	1.3	< 1	< 1	< 1	1.1
2-Butoxyethanol	111-76-2	q		y		20	+	3.9	6	4.9	4.7	3.6	5.8	4.6	4.6	4.4	4.6	5.5	3.5	5.2	5	< 2
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		6.9	8.5	8.2	21	18	6.2	6.8	8.3	6.1	5.6	< 2	< 2	< 2	3.6	< 2
Cumene	98-82-8	q		y			120	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
2-(2-Ethoxyethoxy) Ethanol	111-90-0	u		y				< 2	3.3	4	3.2	< 2	< 2	2.8	< 2	< 2	2.5	7.8	3	< 2	< 2	< 2
Methyl Isobutyl Ketone	108-10-1	q		y			+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9

Table A3 Building 171 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 06-02-03)

Compound Name	CAS Number	Quantitation[136]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 3-3	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	1.1	1.9	1.1	2	1.5	1.5	< 0.9	1.1	1.4	1.1	1.5	< 0.9	1.8	1.2	< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																						
Propionaldehyde	123-38-6	q		y			65	2.9	3.3	3.2	3	2.7	3.2	3.6	< 1	3.8	3.4	< 1	2.2	2.6	2.6	< 1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																						
Benzaldehyde	100-52-7	q					190	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decanal	112-31-2	q					5.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Hexanal	66-25-1	q					58	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.5	< 2	< 2	< 2
Menthol	89-78-1	u					270	< 2	< 2	2.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Nonanal	124-19-6	q					13	3.1	5.1	5.2	5.7	3.4	4.3	3.2	4.2	3	3.2	5.2	< 2	3.7	7.5	< 2
Octanal	124-13-0	u					7.2						4.8									
Octanal	124-13-0	q					7.2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentanal	110-62-3	q					22	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	2.5	3.6	4.5	6	3.4	5.2	3.8	3.6	3.6	3.7	< 1	3.5	4.5	4.1	< 1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a	u						230	320	340	390	300	310	250	280	300	250	290	220	380	330	58
TVOC as Toluene	n/a	u						120	170	180	220	160	170	140	150	160	130	150	120	200	180	28

Table A3 Building 171 – Post-Occupancy #3 VOC Concentrations in μg/m^3 (Data Collected 06-02-03)

Compound Name	CAS Number	Quantitation[136]	CREL (μg/m^3)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m^3)	Olfactory Threshold (μg/m^3)	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 3-3	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
Abundant Chemicals – Analyzed by GC/MS																						
alkyl aromatic HC (20.3 min)		u						2.5	4.2	3	< 2	2.9	3.2	2.5	< 2	3.4	3	2.9	< 2	< 2	< 2	< 2
Benzoic Acid	65-85-0	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	9.9
Butylcyclohexane	1678-93-9	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-10 branched HC (19.0 min)		u						< 2	< 2	< 2	2.7	< 2	3.2	< 2	3.2	3.3	2.5	< 2	3.2	2.4	< 2	< 2
C-11 branched HC (20.5 min)		u						< 2	< 2	< 2	< 2	< 2	2.8	< 2	< 2	2.7	< 2	< 2	< 2	< 2	< 2	< 2
C-11 branched HC (20.9 min)		u						< 2	4.1	< 2	< 2	< 2	3.9	< 2	< 2	3.4	2.9	< 2	< 2	< 2	< 2	< 2
C-11 branched HC (21.4 min)		u						< 2	4.2	< 2	< 2	< 2	3.5	< 2	2.6	3	2.7	< 2	< 2	3.9	< 2	< 2
C-11 branched HC (21.5 min)		u						< 2	4.1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-12 branched HC (23.8 min)		u						< 2	2.4	< 2	< 2	< 2	3.1	< 2	2.9	2.9	< 2	< 2	< 2	< 2	< 2	< 2
C-12 Unstaturated HC (22.3 min)		u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	4.6	< 2	< 2
Cyclohexanone	108-94-1	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decamethylcyclopentasiloxane	541-02-6	q						55	31	28	55	36	36	42	29	41	24	27	23	26	25	< 2
n-Decane	124-18-5	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 2	< 2	< 2	3.1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 2	3.2	2.4	4.5	2.7	3.4	2.6	3	2.7	2.6	2.8	< 2	3.3	2.9	< 2
1-Ethyl-3-methylbenzene	620-14-4	u						< 2	< 2	< 2	3.1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3.6	< 2	< 2
n-Heptane	142-82-5	q					+	2.1	3	2.8	2.7	2.1	3	2.7	2.6	3.2	2.5	< 1	2	< 1	< 1	< 1

Table A3 Building 171 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 06-02-03)

Compound Name	CAS Number	Quantitation[136]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 3-3	Site 4-1	Site 4-2	Site 5-1	Site 6-1	Site 6-2	AHU 1-1	AHU 1-2	AHU 1-3	AHU 1-4	VAU 1-1
Hexamethylcyclotrisiloxane	541-05-9	u						3.8	4.7	3.8	2.8	< 2	4.3	3.6	4.9	5.3	3.8	< 2	2.7	< 2	< 2	< 2
d-Limonene	5989-27-5	q					+	2.6	4.6	5.3	4.1	< 2	5	2.4	7.6	3.5	< 2	5.3	3.4	5	4	< 2
Methylcyclohexane	108-87-2	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
N,N-Dibutyl Formamide	761-65-9	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	4.1	4.3	19	6.1	< 2
n-Nonane	111-84-2	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Octane	111-65-9	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentadecane	629-62-9	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3.7	< 2
alpha-pinene	80-56-8	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Propylene Glycol	57-55-6	u						< 2	< 2	2.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Texanol 1 & 3	25265-77-4	q						17	23	16	35	26	19	13	17	18	17	5.3	5.8	7.4	18	< 2
1,2,3-Trimethylbenzene	526-73-8	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Unidentified (rt: 26.95 min)		u						2.8	4.5	4.6	< 2	3.9	3.5	3.1	< 2	4	3.6	3.8	< 2	4.7	5.8	< 2
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetone	67-64-1	q					+	21	21	18	19	19	19	19	20	19	18	8.7	18	18	18	8.3

APPENDIX B - BUILDING 172: VOC RESULTS

Table B1. Building 172 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 10-10-03)

Compound Name	CAS Number	Quantitation[137]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 1-2	Site 1-Aud	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 5-1	Site 5-2	Site 6-1	AHU 2-1	AHU 2-2	AHU 2-3	VAU 2-1
Chemicals with Published CRELs – Analyzed by GC/MS																				
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	1.7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	100-41-4	q	2000	y	y		13	< 1	1.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylene Glycol	107-21-1	q	400	y				< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-methoxyethanol	109-86-4	q	60	y	y		+	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	75-09-2	q	400	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3

[137] q: based on calibration standard
u: based on library search

Table B1. Building 172 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 10-10-03)

Compound Name	CAS Number	Quantitation[137]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 1-2	Site 1-Aud	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 5-1	Site 5-2	Site 6-1	AHU 2-1	AHU 2-2	AHU 2-3	VAU 2-1
Naphthalene	91-20-3	q	9	y	y		79	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Phenol	108-95-2	q	200	y			430	7.4	8	7.2	8.1	6	5.6	5.7	3.9	6.8	8.5	6.2	4.9	3.7
Styrene	100-42-5	q	900	y			630	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	108-88-3	q	300	y	y		+	< 1	6.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.7	< 1
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	< 1	7.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.1	< 1	3.6	< 1
o-Xylene	95-47-6	q	700	y			+	< 1	2.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																				
Acetaldehyde	75-07-0	q	9	y	y		340	2.6	5.9	3.6	4.5	2.5	3	4.2	3.8	3.1	6.5	4.3	4.4	1.4
Formaldehyde	50-00-0	q	33	y	y		+	12	27	31	47	31	28	30	28	15	53	31	18	3.8
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																				
Acetophenone	98-86-2	u		y			+	< 1	< 1	< 1	3.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butoxyethanol	111-76-2	q		y		20	+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		17	8.7	13	18	9	8.4	11	< 3	11	4.9	3.1	< 3	< 3

Table B1. Building 172 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 10-10-03)

Compound Name	CAS Number	Quantitation[137]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 1-2	Site 1-Aud	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 5-1	Site 5-2	Site 6-1	AHU 2-1	AHU 2-2	AHU 2-3	VAU 2-1
Cumene	98-82-8	q		y			120	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																				
Propionaldehyde	123-38-6	q		y			65	< 2	2.6	< 2	2.2	< 2	< 2	< 2	< 2	< 2	2.4	< 2	< 2	< 2
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																				
Benzaldehyde	100-52-7	q					190	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
n-Butyl Acetate	123-86-4	u					930	< 3	11	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	5.2	< 3
Decanal	112-31-2	q					5.9	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Heptanal	111-71-7	q					23	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Hexanal	66-25-1	q					58	< 3	3.3	4	6.9	7.5	4.6	< 3	< 3	< 3	7.9	< 3	< 3	< 3
Hexanoic acid	142-62-1	u					60	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3.7	< 3	< 3	< 3	< 3
6-methyl-5-hepten-2-one	110-93-0	u					200	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	5.1	< 3
Nonanal	124-19-6	q					13	13	7	14	13	3.9	4.5	8.1	< 3	20	< 3	< 3	< 3	< 3
Nonanoic acid	112-05-0	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3.2	< 3	< 3	< 3	< 3
Octanal	124-13-0	u					7.2	< 3	3.6	4.6	5.2	3	< 3	< 3	< 3	5.4	3.4	< 3	< 3	< 3
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																				

Table B1. Building 172 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 10-10-03)

Compound Name	CAS Number	Quantitation[137]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 1-2	Site 1-Aud	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 5-1	Site 5-2	Site 6-1	AHU 2-1	AHU 2-2	AHU 2-3	VAU 2-1
Butyraldehyde	123-73-9	q					28	< 2	6.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.5	< 2	2.9	< 2
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																				
TVOC as Chlorobenzene-d5	n/a							210	360	170	230	110	98	100	28	180	190	230	420	62
TVOC as Toluene	n/a							130	230	110	140	64	59	61	17	110	120	140	260	37
Abundant Chemicals – Analyzed by GC/MS																				
Benzoic Acid	65-85-0	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	8.6
n-Butyl-1-butanamine	111-92-2	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	28	130	< 3
Butylcyclohexane	1678-93-9	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
C-9 Branched HC (16.5 min)		u						< 3	3.2	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
C-10 Branched HC (18.2 min)		u						< 3	3.4	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
C-11 branched HC (21.5 min)		u						< 3	3.5	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Cyclohexanone	108-94-1	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Decamethylcyclopentasiloxane	541-02-6	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	4.3	< 3	< 3	< 3
n-Decane	124-18-5	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Ethyl-3-ethoxypropionate	763-69-9	u						< 3	4.5	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
2-Ethyl-1-hexanoic Acid	149-57-5	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
2-Ethyl-1-Hexanol	104-76-7	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3

Table B1. Building 172 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 10-10-03)

Compound Name	CAS Number	Quantitation[137]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 1-2	Site 1-Aud	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 5-1	Site 5-2	Site 6-1	AHU 2-1	AHU 2-2	AHU 2-3	VAU 2-1
n-Heptane	142-82-5	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
d-Limonene	5989-27-5	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Longifolene	475-20-7	u						< 3	3.2	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Methylcyclohexane	108-87-2	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
N,N-Dibutyl formamide	761-65-9	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	12	34	< 3
n-Nonane	111-84-2	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
n-Octane	111-65-9	u					+	< 3	3.2	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
alpha-pinene	80-56-8	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
beta-Pinene	127-91-3	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1-Piperidinecarboxaldehyde	2591-86-8	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	7.5	< 3
Texanol 1 & 3	25265-77-4	q						14	33	15	13	7.8	6.2	7.3	< 3	13	15	11	< 3	< 3
1,3,5-Trimethylbenzene	108-67-8	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
n-Undecane	1120-21-4	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																				
Acetone	67-64-1	q					+	3.6	6.2	4.5	5	3.7	3.8	5	4.8	2.7	5.6	4.2	5	3.2

Table B2. Building 172 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 02-11-04)

Compound Name	CAS Number	Quantitation[138]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Chemicals with Published CRELs – Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 4	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2	< 2
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	1.6	< 0.9
Ethylene Glycol	107-21-1	q	400	y				< 20	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	1.7	< 2	< 2	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 1
n-Hexane	110-54-3	q	7000	y			+	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Methoxyethanol	109-86-4	q	60	y	y		+	< 6	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 3	< 3	< 3	< 3
Methylene Chloride	75-09-2	q	400	y	y		+	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Phenol	108-95-2	q	200	y			430	5.2	4.6	4.2	4.9	4.6	4.2	5.4	3.9	4.1	3.9	3.5	3.5	4	3.4	2.5
Styrene	100-42-5	q	900	y			630	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9

[138] q: based on calibration standard
u: based on library search

Table B2. Building 172 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 02-11-04)

Compound Name	CAS Number	Quantitation[138]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Toluene	108-88-3	q	300	y	y		+	5	3.6	3.5	4.7	4	3.4	5.4	3.4	3.7	3.2	2	2.8	4	7.5	1.3
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 1
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	4.1	2.4	2.3	2.8	2.6	2.3	4.3	2.2	2.6	2.3	1.3	2	2.7	6.7	< 0.9
o-Xylene	95-47-6	q	700	y			+	< 1	< 1	< 1	< 1	< 1	< 1	1.3	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	2.3	< 0.9
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	6.2	7.6	7.3	7.3	7.9	9.1	6.3	6.8	7	7.1	5.9	5.3	7.2	9.4	2.2
Formaldehyde	50-00-0	q	33	y	y		+	17	31	30	40	39	47	29	28	25	27	17	23	28	20	2.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																						
Acetophenone	98-86-2	u		y			+	< 2	< 1	< 1	< 1	< 1	< 1	2.6	< 1	< 1	< 1	< 1	< 1	< 1	5.5	< 1
2-Butoxyethanol	111-76-2	q		y		20	+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 1
2-(2-Butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 1
Caprolactam	105-60-2	q		y		100		3.4	5.1	3.7	6	4.7	3.6	7.8	3	3.2	3.4	2.7	< 2	< 2	< 2	< 2
Cumene	98-82-8	q		y			120	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
1-Methyl-2-Pyrrolidinone	872-50-4	q			y			< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	< 1	< 1	< 1	< 1	< 1	< 1	1.2	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	1.6	< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																						

Table B2. Building 172 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 02-11-04)

Compound Name	CAS Number	Quantitation[138]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Propionaldehyde	123-38-6	q		y			65	2.5	1.7	1.9	1.9	2.1	2.3	1.9	2	1.9	2.1	1.4	1.2	2	1.6	< 1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																						
Benzaldehyde	100-52-7	q					190	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Butyl Acetate	123-86-4	u					930	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	4.9	< 2
Decanal	112-31-2	q					5.9	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Hexanal	66-25-1	q					58	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Hexanoic Acid	142-62-1	u					60	< 4	3.5	2.8	< 2	< 2	2.4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Menthol	89-78-1	u					270	< 4	< 2	< 2	3.1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Nonanal	124-19-6	q					13	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.4	< 2	8.1	< 2
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	< 2	1.7	2.1	1.7	1.8	1.8	1.6	1.3	2.5	2.4	2.8	1.6	2.5	2.6	< 1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a	u						190	160	150	300	250	200	240	130	190	150	98	120	190	600	57
TVOC as Toluene	n/a	u						120	110	110	210	180	140	160	89	130	100	65	84	120	420	37
Abundant Chemicals – Analyzed by GC/MS																						
Butylated Hydroxytoluene	128-37-0	u						< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	5.4	< 2
n-Butyl-1-butanamine	111-92-2	u						< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	130	< 2

Table B2. Building 172 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 02-11-04)

Compound Name	CAS Number	Quantitation[138]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Butylcyclohexane	1678-93-9	q						< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-11 branched HC (20.9 min)		u						< 4	< 2	< 2	3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-11 branched HC (21.4 min)		u						< 4	< 2	< 2	2.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-11 branched HC (21.5 min)		u						< 4	< 2	< 2	2.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-14 branched alkane HC (27.3 min)		u						< 4	< 2	< 2	3.4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cyclohexanone	108-94-1	q					+	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decamethylcyclopentasiloxane	541-02-6	u						21	23	15	48	53	28	30	15	24	24	13	15	16	28	< 2
n-Decane	124-18-5	q					+	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Dodecane	112-40-3	u					+	< 4	< 2	< 2	3.3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Heptane	142-82-5	q					+	< 2	1.7	1.5	4.4	2.3	1.8	1.8	1.6	1.4	1.4	2.5	1.2	2.3	1.5	< 1
Hexadecane	544-76-3	u						< 4	< 2	< 2	5.8	4.3	3.5	3.3	2.4	2.8	3.1	< 2	< 2	< 2	< 2	< 2
d-Limonene	5989-27-5	q					+	4.6	3.5	7.6	7.2	13	18	6.7	4.4	20	3.7	< 2	6	8	8	< 2
Methylcyclohexane	108-87-2	q						< 4	< 2	< 2	2.4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
3-Methylhexane	589-34-4	u						< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.5	< 2	2.3	< 2	< 2
N,N-Dibutyl Formamide	761-65-9	u						< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	18	< 2
n-Nonane	111-84-2	q					+	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table B2. Building 172 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 02-11-04)

Compound Name	CAS Number	Quantitation[138]	CREL (μg/m³)	ARB TAC	Prop. 65 Chemical	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Pentadecane	629-62-9	u						< 4	< 2	< 2	6.6	4.3	3.5	3.8	2.4	2.9	3.6	< 2	< 2	< 2	< 2	< 2
alpha-Pinene	80-56-8	q					+	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Piperidine	110-89-4	u					+	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	110	< 2
1-Piperidinecarboxaldehyde	2591-86-8	u						< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	11	< 2
Propylene Glycol	57-55-6	u						< 4	< 2	< 2	12	3.4	< 2	< 2	< 2	3.1	< 2	< 2	< 2	< 2	< 2	< 2
Tetradecane	629-59-4	u						< 4	< 2	< 2	4.1	2.4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Texanol 1 & 3	25265-77-4	q						5.8	4.5	5.2	5.4	4.8	3.4	6	3.4	3.6	3.3	2.6	2.2	3.2	5.3	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	< 4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Unidentified (rt: 26.95 min)		u						< 4	< 2	< 2	4.4	3.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetone	67-64-1	q					+	20	16	19	19	20	24	17	19	17	18	13	14	18	27	8.8

Table B3. Building 172 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-30-04)

Compound Name	CAS Number	Quantitation[139]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Chemicals with Published CRELs – Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	1.2	1.2	1.4	< 4	1.2	1.2	1.5	< 1	1.2	< 1	< 1	1.0	1.1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 3	< 9	< 3	< 2	< 3	< 2	< 3	< 2	< 2	< 3	< 3	< 2	< 3
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 0.9	< 0.9	< 0.9	< 3	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	2.0	< 0.9	< 0.9	< 3	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	2.1	1.5	1.1	< 3	1.7	1.0	1.7	< 0.9	1.4	1.0	1.8	1.3	1.2	1.7	< 0.9
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	1.6	1.8	< 6	< 2	< 1	2.2	< 2	2.5	< 1	< 1	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	< 1	< 4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 4	< 4	< 10	< 4	< 3	< 4	< 4	< 4	< 3	< 3	< 4	< 4	< 4	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 7	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	1.0	0.9	< 0.9	< 3	1.0	< 0.9	0.9	< 0.9	< 0.9	< 0.9	1.0	1.0	< 0.9	< 0.9	< 0.9
Phenol	108-95-2	q	200	y			430	4.3	5.5	4.9	9.0	6.6	4.7	6.2	4.0	5.5	4.0	9.1	4.7	4.4	1.5	1.4
Styrene	100-42-5	q	900	y			630	< 0.9	0.9	< 0.9	< 3	1.0	< 0.9	1.0	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Tetrachloroethylene	127-18-4	q	35	y	y		+	1.5	1.8	1.4	3.4	1.7	1.5	1.8	1.3	1.6	1.2	1.9	1.3	1.5	1.2	1.4
Toluene	108-88-3	q	300	y	y		+	6.9	5.5	3.8	7.9	7.7	4.4	6.5	2.9	5.6	3.2	6.3	4.4	4.2	6.2	1.8
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 6	< 2	< 1	< 2	< 2	< 2	< 1	< 1	< 2	< 2	< 2	< 2

[139] q: based on calibration standard
u: based on library search

Table B3. Building 172 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-30-04)

Compound Name	CAS Number	Quantitation[139]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Trichloroethylene	79-01-6	q	600	y	y		+	< 0.9	< 0.9	< 0.9	< 3	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	7.6	4.8	3.4	5.1	5.4	3.2	5.4	2.7	4.4	3.1	6.0	4.0	3.8	5.6	2.0
o-Xylene	95-47-6	q	700	y			+	3.0	1.9	1.3	< 3	2.1	1.3	2.1	1.2	1.8	1.3	2.2	1.6	1.5	2.1	< 0.9
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	4.2	7.9	5.3	12.0	8.8	6.2	7.0	4.1	7.4	7.9	< 1	7.7	5.6	6.6	1.4
Formaldehyde	50-00-0	q	33	y	y		+	20	53.0	44.0	81.0	69.0	42.0	58.0	34.0	56.0	50.0	3.3	48.0	33.0	21.0	2.1
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																						
2-Butoxyethanol	111-76-2	q		y		20	+	4.0	5.1	3.8	7.9	6.5	3.3	5.2	15.0	5.8	3.2	6.7	4.1	7.0	2.6	< 2
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 6	< 2	< 1	< 2	< 2	< 2	< 1	< 1	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		6.9	8.9	13.0	22.0	11.0	10.0	13.0	7.7	8.1	6.4	10.0	2.5	< 2	< 2	< 2
Cumene	98-82-8	q		y			120	< 0.9	< 0.9	< 0.9	< 3	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Methyl Isobutyl Ketone	108-10-1	q		y			+	< 0.9	1.2	1.6	< 3	1.2	1.8	1.1	1.5	< 0.9	< 0.9	2.4	< 0.9	3.1	< 0.9	< 0.9
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 0.9	< 0.9	< 0.9	< 3	< 0.9	< 0.9	0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	1.6	1.5	1.5	< 3	1.7	1.2	1.6	1.0	1.4	1.1	2.0	1.3	1.4	1.6	< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																						
Propionaldehyde	123-38-6	q		y			65	< 1	2.4	< 1	< 4	2.3	< 1	< 1	< 1	2.7	< 1	< 1	2.1	< 1	< 1	< 1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																						
Benzaldehyde	100-52-7	q					190	2.4	3.3	2.9	< 8	3.9	2.8	3.6	2.7	3.2	2.5	4.4	2.7	2.4	< 2	< 2
Decanal	112-31-2	q					5.9	< 2	< 2	< 2	< 8	2.3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table B3. Building 172 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-30-04)

Compound Name	CAS Number	Quantitation[139]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Hexanal	66-25-1	q					58	< 2	3.8	< 2	< 8	6.2	2.3	5.7	< 2	4.6	2.6	< 2	6.6	4.5	< 2	< 2
Nonanal	124-19-6	q					13	4.8	9.2	6.3	16	9.5	8.7	10	5.0	8.8	6.1	12	7.8	8.1	3.0	< 2
Octanal	124-13-0	q					7.2	< 2	2.9	< 2	< 8	3.4	2.8	< 2	2.2	2.8	2.2	3.5	< 2	2.6	< 2	< 2
Pentanal	110-62-3	q					22	< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	< 1	2.6	< 1	< 4	2.6	< 1	2.5	< 1	2.1	2.0	< 1	2.4	2.5	3.6	< 1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a							380	510	320	920	680	360	560	270	450	340	680	370	320	460	76
TVOC as Toluene	n/a							210	310	190	510	450	230	340	160	290	200	380	220	190	260	40
Abundant Chemicals – Analyzed by GC/MS																						
Benzoic Acid	65-85-0	u						2.5		4.7			2.6					6.7				7.0
Butylcyclohexane	1678-93-9	q						< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cyclohexanone	108-94-1	q					+	< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decamethylcyclopentasiloxane	541-02-6	u						14	74	26	130	140	53	78	27	50	52	130	44	29	7.6	< 2
n-Decane	124-18-5	q					+	2.3	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	2.7	4.5	2.3	< 8	6.5	3.5	6.4	2.6	5.2	3.2	5.6	3.8	3.0	< 2	< 2
n-Heptane	142-82-5	q					+	1.7	3.6	< 1	6.8	3.5	1.8	3.1	4.5	3.1	1.6	3.2	2.3	2.0	< 1	< 1
d-Limonene	5989-27-5	q					+	2.5	12	< 2	43	14	6.9	10	4.5	8.7	5.2	4.9	8.3	4.2	< 2	< 2
Methylcyclohexane	108-87-2	q						< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table B3. Building 172 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-30-04)

Compound Name	CAS Number	Quantitation[139]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
n-Nonane	111-84-2	q					+	< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Octane	111-65-9	q					+	< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
alpha-pinene	80-56-8	q					+	< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Texanol 1 & 3	25265-77-4	q						22	24	15	25	22	19	22	12	19	13	32	13	8.7	3.3	< 2
1,2,3-Trimethylbenzene	526-73-8	q						< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 2	< 2	< 2	< 8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	< 2	< 2	< 2	< 8	2.4	< 2	< 2	< 2	2.6	< 2	< 2	< 2	< 2	< 2	< 2
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetone	67-64-1	q					+	12	20	11	22	21	12	19	12	20	19	3.2	16	11	13	2.8

Table B4. Building 172 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 06-08-04)

Compound Name	CAS Number	Quantitation	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Chemicals with Published CRELs – Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 3	3	< 3	< 3	< 3	< 3	< 3	< 3	4.9	< 3	< 2	< 2	< 2
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	4.1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	1	< 0.9	1.1	< 0.9
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	2.8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1	< 2
n-Hexane	110-54-3	q	7000	y			+	1.1	1.5	< 1	1.8	1.2	1.6	1.3	< 1	< 1	1.4	2.9	< 1	< 1	< 1	< 1
2-methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 3	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Phenol	108-95-2	q	200	y			430	2.8	3.8	4.5	3.6	4.3	4.6	3.9	3.5	4.3	4.5	4	5.5	2.1	1.1	< 0.9
Styrene	100-42-5	q	900	y			630	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Toluene	108-88-3	q	300	y	y		+	6	5.1	5.4	6.6	6.4	6.8	4.9	4.7	5.5	5.4	5.4	5.9	3.2	5.1	2.3
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	5.8	3.7	4.4	3.2	3.9	4.8	3.8	3.4	3.9	4.1	3.3	5.4	3.2	5.9	1.5

Table B4. Building 172 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 06-08-04)

Compound Name	CAS Number	Quantitation	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
o-Xylene	95-47-6	q	700	y			+	1.7	< 0.9	1.2	< 0.9	0.99	1.3	< 0.9	< 0.9	0.92	1	< 0.9	1.6	< 0.9	1.7	< 0.9
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	< 10	6.3	7.8	6.8	9	7	7.8	6.7	7.4	8.7	6.3	9.3	5.1	7.8	2.8
Formaldehyde	50-00-0	q	33	y	y		+	30	50	55	51	68	50	54	42	50	50	33	47	20	23	4.5
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																						
Acetophenone	98-86-2	u		y			+	< 1	2.5	2.9	1.2	2.9	3	2.5	2.6	2.7	2.8	2.3	2.7	< 1	< 1	< 1
2-Butoxyethanol	111-76-2	q		y		20	+	3.5	2.3	4	2.7	3.8	3.3	3.2	2.6	3.5	3.5	2.7	4.9	< 2	3.5	< 2
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1	< 2
Caprolactam	105-60-2	q		y		100		7.1	12	9	11	9.3	11	7.7	7.7	7.1	6.4	7.1	4.3	2.4	< 2	< 2
Cumene	98-82-8	q		y			120	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Methyl Isobutyl Ketone	108-10-1	q		y			+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	< 0.9	1.1	< 0.9	< 0.9	< 0.9	1.1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																						
Propionaldehyde	123-38-6	q		y			65	< 10	< 1	< 1	< 1	1.3	< 1	3.1	1.2	1.2	1.7	1.2	1.4	< 1	< 1	< 1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																						
Benzaldehyde	100-52-7	q					190	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decanal	112-31-2	q					5.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Hexanal	66-25-1	q					58	< 2	< 2	< 2	< 2	2.3	< 2	< 2	< 2	< 2	< 2	< 2	5.7	< 2	< 2	< 2
Menthol	89-78-1	u					270	< 2	< 2	< 2	3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table B4. Building 172 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 06-08-04)

Compound Name	CAS Number	Quantitation	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Nonanal	124-19-6	q					13	2.7	4	4.5	5.2	5.1	5.9	4.2	4.2	4.8	4.2	4.6	4.9	4	< 2	9.6
Nonanoic Acid	112-05-0	u																		4		6.2
Octanal	124-13-0	u					7.2		< 2	3.9	< 2	4.5		4		4.2	3.5					
Octanal	124-13-0	q					7.2	< 2	2.9	< 2	4.2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentanal	110-62-3	q					22	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	< 10	< 1	1.8	< 1	< 1	< 1	1.6	< 1	1.6	4.3	< 1	1.8	< 1	5.3	< 1
Total Volatile Organic Compounds (TVOC) - Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a	u						220	180	250	230	300	250	230	190	240	240	200	290	170	480	86
TVOC as Toluene	n/a	u						120	98	130	120	160	140	120	99	130	130	97	160	82	240	40
Abundant Chemicals – Analyzed by GC/MS																						
alkyl aromatic HC (20.3 min)		u						< 2	2.4	2.4	< 2	2.5	2.7	< 2	< 2	2.5	< 2	< 2	< 2	< 2	< 2	< 2
Benzoic Acid	65-85-0	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3.5
n-Butyl-1-butanamine	111-92-2	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	120	< 2
Butylcyclohexane	1678-93-9	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-10 branched HC (19.0 min)		u						6.2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.6	< 2	9.2	< 2
Cyclohexanone	108-94-1	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decamethylcyclopentasiloxane	541-02-6	q						7.1	11	30	18	43	22	30	19	27	29	16	29	6.2	5.1	< 2
n-Decane	124-18-5	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Dodecane	112-40-3	u					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3.5	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table B4. Building 172 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 06-08-04)

Compound Name	CAS Number	Quantitation	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
2-Ethyl-1-Hexanol	104-76-7	q					+	3.1	< 2	2.7	2.4	3.2	3.5	3.1	< 2	2.9	2.9	< 2	3.6	< 2	< 2	< 2
Heptadecane	629-78-7	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3.7
n-Heptane	142-82-5	q					+	< 1	< 1	< 1	1.8	1.9	1.7	< 1	1.3	1.5	1.3	< 1	< 1	< 1	< 1	< 1
Hexadecane	544-76-3	u						< 2	< 2	2.9	4.8	< 2	4	2.9	2.7	< 2	3.7	3.1	< 2	< 2	< 2	< 2
Hexamethylcyclotrisiloxane	541-06-9	u						< 2	2.9	3.9	2.9	4.1	3.8	4.8	3.1	4.3	4.5	3.2	< 2	< 2	< 2	< 2
d-Limonene	5989-27-5	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methylcyclohexane	108-87-2	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
N,N-Dibutyl Formamide	761-65-9	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	8.4	20	< 2
n-Nonane	111-84-2	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Octane	111-65-9	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentadecane	629-62-9	u						< 2	2.5	3.1	4.9	4	4.4	3.1	3.3	3.3	4.1	3.2	5.5	< 2	< 2	< 2
alpha-pinene	80-56-8	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Piperidine	110-89-4	u					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	53	< 2
1-Piperidinecarboxaldehyde	2591-86-8	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	9.8	< 2
Propylene Glycol	57-55-6	u						< 2	< 2	< 2	6.3	3.2	< 2	< 2	< 2	5	< 2	< 2	< 2	< 2	< 2	< 2
Tetradecane	629-59-4	u						< 2	< 2	< 2	2.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.4	< 2	< 2	< 2
Texanol 1 & 3	25265-77-4	q						15	15	22	13	16	17	13	12	16	18	14	21	8.6	3	< 2
1,2,3-Trimethylbenzene	526-73-8	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	0.72	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table B4. Building 172 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 06-08-04)

Compound Name	CAS Number	Quantitation	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-Aud	Site 2-1	Site 2-2	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	AHU 2-1	AHU 2-2	AHU 2-3	VAU 1-1
Unidentified (rt: 26.95 min)		u						< 2	< 2	3.1	2.8	5.2	3	3.2	2.4	2.7	3.1	2.4	4.3	< 2	< 2	< 2
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetone	67-64-1	q					+	12	13	18	17	21	14	17	14	16	17	12	15	9.4	14	6.3

APPENDIX C - BUILDING 173: VOC RESULTS

Table C1. Building 173 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 04-11-03)

Compound Name	CAS Number	Quantitation[140]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 5-1	Site 6-1	Site 7-1	Site 7-2	AHU 3-2	VAU 3-1
Chemicals with Published CRELs – Analyzed by GC/MS																	
Benzene	71-43-2	q	60	y	y		+	< 2	< 2	< 3	< 2	< 2	< 2	< 1	< 1	< 1	< 2
Chloroform	67-66-3	q	300	y	y		+	< 4	< 4	< 8	< 4	< 4	< 4	< 4	< 4	< 3	< 4
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 3	< 3	< 5	< 3	< 3	< 3	< 2	< 2	< 2	< 3
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 1	< 3	< 1	< 1	< 1	< 1	< 1	< 1	< 2
Ethylbenzene	100-41-4	q	2000	y	y		13	2.7	1.9	4.1	1.9	2.3	1.8	2.2	1.8	2.3	1.6
Ethylene Glycol	107-21-1	q	400	y				< 20	< 20	< 40	< 20	< 20	< 20	< 20	< 20	< 10	< 20
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 5	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 2	3	< 3	< 2	1.7	< 2	2.2	< 1	< 1	< 2
2-Methoxyethanol	109-86-4	q	60	y	y		+	< 5	< 6	< 10	< 5	< 5	< 5	< 5	< 5	< 4	< 6
Methylene Chloride	75-09-2	q	400	y	y		+	< 3	< 3	< 6	< 3	< 3	< 3	< 3	< 3	< 2	< 3
Naphthalene	91-20-3	q	9	y	y		79	2.5	< 1	< 3	2.4	< 1	2.4	2.2	< 1	1.9	< 2
Phenol	108-95-2	q	200	y			430	6.6	4.5	8.6	5.9	6.4	4.5	5.4	4	5	2.7
Styrene	100-42-5	q	900	y			630	1.7	< 1	< 3	1.6	< 1	< 1	1.5	< 1	< 1	< 2
Tetrachloroethylene	127-18-4	q	35	y	y		+	2.8	1.5	< 3	2.8	2.8	2.7	2.6	< 1	2.2	< 2

[140] q: based on calibration standard
u: based on library search

Table C1. Building 173 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 04-11-03)

Compound Name	CAS Number	Quantitation[140]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 5-1	Site 6-1	Site 7-1	Site 7-2	AHU 3-2	VAU 3-1
Toluene	108-88-3	q	300	y	y		+	3.2	2.9	6.7	2.6	3.8	2.4	3.3	2.4	3.1	2.1
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 5	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 3	< 1	< 1	< 1	< 1	< 1	< 1	< 2
m/p-Xylene	108-38-3 / 106-42-3	q	700	y			+	6.9	3.8	8.6	4.1	5.5	3.6	5	3.6	6.1	2.7
o-Xylene	95-47-6	q	700	y			+	3	2.2	4.5	2.2	2.6	2	2.4	2	2.5	1.9
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																	
Acetaldehyde	75-07-0	q	9	y	y		340	3.3	5.9	5.6	3.3	6.3	4.5	8.7	3.1	3.8	< 2
Formaldehyde	50-00-0	q	33	y	y		+	9.8	14	15	10	11	25	12	9.9	11	2.1
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																	
Acetophenone	98-86-2	u		y			+	4.2	< 2	< 3	2.5	< 2	1.9	< 1	< 1	< 1	2
2-Butoxyethanol	111-76-2	u		y		20	+	3.7	< 2	5.6	2.5	5.5	2.4	4.6	< 2	5.4	< 2
2-(2-Butoxyethoxy)-Ethanol	112-34-5	q		y				< 2	< 2	< 5	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		7.1	5.5	11	7	7	5.9	6.1	5.3	3.2	< 3
1-Methyl-2-Pyrrolidinone	872-50-4	q			y			< 1	< 1	< 3	< 1	< 1	< 1	< 1	< 1	< 1	< 2
1,2,4-Trimethylbenzene	95-63-6	u		y	y		780	11	4.8	9.4	5.5	8.1	4.6	6.6	4	9.7	< 2
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																	
Propionaldehyde	123-38-6	q		y			65	< 2	< 2	< 4	< 2	< 2	< 2	< 2	< 2	< 1	< 2
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																	
Benzaldehyde	100-52-7	u					190	< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	2.9	< 4
Decanal	112-31-2	u					5.9	3.7	< 4	< 7	< 3	< 3	3.4	< 3	< 3	< 3	< 4

Table C1. Building 173 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 04-11-03)

Compound Name	CAS Number	Quantitation[140]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 5-1	Site 6-1	Site 7-1	Site 7-2	AHU 3-2	VAU 3-1
Heptanal	111-71-7	u					23	< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
Hexanal	66-25-1	u					58	< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
Hexanoic acid	142-62-1	u					60	< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
Indene	95-13-6	q					43	< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
Nonanal	124-19-6	u					13	24	11	29	28	21	19	16	21	19	35
Nonanoic acid	112-05-0	u						< 4	< 4	< 7	3.7	< 3	< 3	< 3	< 3	< 3	< 4
Octanal	124-13-0	u					7.2	4.1	< 4	< 7	4	4	< 3	< 3	< 3	3.7	< 4
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																	
Butyraldehyde	123-73-9	q					28	< 2	< 2	< 4	< 2	< 2	2.1	5.3	24	< 1	< 2
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																	
TVOC as Chlorobenzene-d5	n/a							410	250	410	260	320	180	290	190	320	110
TVOC as Toluene	n/a							97	60	100	61	73	45	67	45	74	27
Abundant Chemicals – Analyzed by GC/MS																	
Benzoic Acid	65-85-0	u						< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
Butylcyclohexane	1678-93-9	q						< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
C-11 Branched HC (21.8 Min)		u						< 4	< 4	< 7	< 3	< 3	< 3	3.2	< 3	3.9	< 4
Cyclohexanone	108-94-1	q					+	< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
Decamethylcyclopentasiloxane	541-02-6	u						< 4	< 4	7.6	< 3	< 3	< 3	< 3	< 3	< 3	< 4
n-Decane	124-18-5	q					+	3.6	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
1,3-Diisopropylbenzene	99-62-7	q						< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4

Table C1. Building 173 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 04-11-03)

Compound Name	CAS Number	Quantitation[140]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 5-1	Site 6-1	Site 7-1	Site 7-2	AHU 3-2	VAU 3-1
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
2-Ethyl-1-Hexanol	104-76-7	q					+	< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
1-Ethyl-3-methylbenzene	620-14-4	u						17	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	4.2
n-Heptane	142-82-5	q					+	< 2	< 2	< 4	< 2	< 2	< 2	< 2	< 2	< 1	< 2
d-Limonene	5989-27-5	u					+	< 4	32	7.7	< 3	< 3	< 3	< 3	< 3	3.7	< 4
Longifolene	475-20-7	u						13	6.3	14	9.1	10	< 3	3.8	< 3	7.2	< 4
Methylcyclohexane	108-87-2	q						< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
n-Nonane	111-84-2	q					+	< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
n-Octane	111-65-9	u					+	5.5	< 4	< 7	< 3	3.4	< 3	< 3	< 3	< 3	< 4
Propylene Glycol	57-55-6	u						< 4	< 4	< 7	< 3	3.4	< 3	3.3	< 3	4.4	< 4
Texanol 1 & 3	25265-77-4	u						59	33	71	40	46	23	48	24	40	8.7
1,2,3-Trimethylbenzene	526-73-8	u						5.8	< 4	7.2	< 3	4.8	< 3	4.2	< 3	5	< 4
1,3,5-Trimethylbenzene	108-67-8	q					+	< 4	< 4	< 7	< 3	< 3	< 3	< 3	< 3	< 3	< 4
n-Undecane	1120-21-4	q					+	3.9	< 4	< 7	< 3	< 3	< 3	< 3	< 3	2.8	< 4
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																	
Acetone	67-64-1	q					+	13	29	33	10	12	5.3	18	9.6	16	4.1

Table C2. Building 173 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-29-03)

Compound Name	CAS Number	Quantitation[141]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Chemicals with Published CRELs - Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	100-41-4	q	2000	y	y		13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.3	< 1
Ethylene Glycol	107-21-1	q	400	y				< 20	< 10	< 20	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Phenol	108-95-2	q	200	y			430	6.3	5.4	6.5	4.8	5.6	6.2	5.5	4.4	5.2	5	6.1	5.1	4.1	9.6	3.2
Styrene	100-42-5	q	900	y			630	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

[141] q: based on calibration standard
u: based on library search

Table C2. Building 173 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-29-03)

Compound Name	CAS Number	Quantitation[141]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Toluene	108-88-3	q	300	y	y		+	1.8	1.2	1.8	1.7	1.7	1.4	1.8	< 1	1.6	1.3	2.3	1.6	1.4	4.4	< 1
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m/p-Xylene	108-38-3 / 106-42-3	q	700	y			+	1.6	< 1	1.6	< 1	1.4	1.1	1.4	< 1	1.4	< 1	1.9	1.3	1.3	5.2	< 1
o-Xylene	95-47-6	q	700	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.7	< 1
Chemicals with Published CRELs - Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	6.2	7	7.4	5.1	6.4	6.2	6.2	6.3	6.5	5.1	5.6	5.8	3.9	12	2.4
Formaldehyde	50-00-0	q	33	y	y		+	15	14	18	12	17	15	16	15	16	13	15	14	11	30	4.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by GC/MS																						
Acetophenone	98-86-2	u		y			+	2.3	< 1	2.1	1.2	2.4	1.7	1.9	< 1	1.7	1.6	2.6	1.7	< 1	3.8	1.5
2-Butoxyethanol	111-76-2	q		y		20	+	1.8	< 2	3.5	< 2	< 2	< 2	2.3	< 2	< 2	7.6	2	< 2	< 2	6.7	< 2
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		9.8	7	11	6.7	8.4	7.4	7.5	4.5	6.1	6.1	7.3	5.6	< 2	7.1	< 2
Cumene	98-82-8	q		y			120	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	108-10-1	u		y			+	< 1	< 1	2.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Methacrylate	80-62-6	u		y			+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Propoxyethanol	2807-30-9	u		y				< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	3.9	< 2
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2	< 1

Table C2. Building 173 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-29-03)

Compound Name	CAS Number	Quantitation[141]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by HPLC (Aldehyde-DNPH)																						
Propionaldehyde	123-38-6	q		y			65	1.9	< 1	2.2	< 1	2.1	1.6	1.9	< 1	2.2	< 1	1.8	1.7	< 1	2.3	< 1
Chemicals with Olfactory Thresholds - Analyzed by GC/MS																						
Benzaldehyde	100-52-7	q					190	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	2.7	< 2
n-Butyl Acetate	123-86-4	u					930	< 3	4.5	< 3	2.7	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Decanal	112-31-2	q					5.9	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Hexanal	66-25-1	q					58	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Hexanoic acid	142-62-1	u					60	< 3	< 3	< 3	< 3	< 3	< 3	2.6	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Nonanal	124-19-6	q					13	5	4.9	7.3	< 3	4.9	4	6	< 3	6.6	5.8	8.1	3.9	< 2	6.5	< 2
Nonanoic acid	112-05-0	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Octanal	124-13-0	u					7.2	3.2	< 3	3.2	< 3	< 3	2.9	4.1	3.6	3.2	< 3	3.7	2.8	< 2	5.2	< 2
Octanoic Acid	124-07-2	u					23	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Chemicals with Olfactory Thresholds - Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	< 1	< 1	3.7	< 1	< 1	< 1	< 1	2.4	< 1	3.3	< 1	< 1	< 1	4.8	< 1
Total Volatile Organic Compounds (TVOC) - Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a							230	180	280	140	170	170	190	99	210	150	260	170	170	420	56
TVOC as Toluene	n/a							140	110	180	85	110	100	120	66	130	94	170	110	110	270	34
Abundant Chemicals - Analyzed by GC/MS																						

Table C2. Building 173 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-29-03)

Compound Name	CAS Number	Quantitation[141]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
alkyl aromatic HC (20.3 min)		u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	4.1	< 2
Benzoic Acid	65-85-0	u						< 3	< 3	< 3	< 3	3.1	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	5.7
n-Butyl-1-butanamine	111-92-2	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	20	< 2	< 2
Butylcyclohexane	1678-93-9	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
C-11 Branched HC (21.5 min)		u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	3.7	< 2
Cyclohexanone	108-94-1	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Decamethylcyclopentasiloxane	541-02-6	u						26	16	56	23	11	17	22	19	34	16	34	27	3.5	40	< 2
n-Decane	124-18-5	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Dodecane	112-40-3	u					+	< 3	9.9	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3.4	< 3	< 2	< 2	< 2
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
1-Ethyl-2-methylbenzene	611-14-3	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
n-Heptane	142-82-5	q					+	< 2	< 1	< 2	< 1	< 1	< 1	< 1	< 1	1.6	< 2	2.3	1.5	< 1	2.2	< 1
Hexamethylcyclotrisiloxane	541-05-9	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
d-Limonene	5989-27-5	u					+	3.1	< 3	10	3.3	< 3	< 3	< 3	< 3	2.8	< 3	< 3	2.6	4.2	10	< 2
Methylcyclohexane	108-87-2	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
N,N-Dibutyl Formamide	761-65-9	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	8.5	< 2	< 2
n-Nonane	111-84-2	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
n-Octane	111-65-9	u					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2

Table C2. Building 173 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-29-03)

Compound Name	CAS Number	Quantitation[141]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Pentadecane	629-62-9	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
alpha-pinene	80-56-8	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Propylene Glycol	57-55-6	u						4.8	3.5	5.2	< 3	< 3	< 3	4.4	3.2	2.9	< 3	3.4	3.7	< 2	< 2	< 2
Tetradecane	629-59-4	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3.4	< 2	< 2	< 2
Texanol 1 & 3	25265-77-4	q						14	6.4	10	5	8.5	8.5	6.9	4.1	6.6	5.4	10	6.3	< 2	22	< 2
Tridecane	629-50-5	u						< 3	2.7	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	2.7	< 3	< 2	< 2	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	< 3	3.8	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Abundant Chemicals - Analyzed by HPLC (Aldehyde-DNPH)																						
Acetone	67-64-1	q					+	8	7.7	9.7	7.4	8.8	7.5	8.9	7.8	9.8	6.4	7.3	7	5.9	15	3.4

Table C3. Building 173 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-03-04)

Compound Name	CAS Number	Quantitation[142]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Chemicals with Published CRELs – Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3	< 3	< 3
1,4-Dichlorobenzene	106-46-7	u	800				300	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	3.9	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
Phenol	108-95-2	q	200	y			430	4.7	5	7	4.8	4.1	5.3	4.8	4.3	4.4	3.7	3.1	3	3.9	3.2	3
Styrene	100-42-5	q	900	y			630	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9

[142] q: based on calibration standard
u: based on library search

Table C3. Building 173 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-03-04)

Compound Name	CAS Number	Quantitation[142]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
Toluene	108-88-3	q	300	y	y		+	4.5	4.1	3.5	3.8	1.3	3.6	4.3	2.3	3.2	1.2	1.6	< 0.9	4.1	< 0.9	1.8
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
m/p-Xylene	108-38-3 / 106-42-3	q	700	y			+	1.2	1.2	1.9	1.1	< 1	1.1	1.4	< 1	1	< 1	< 0.9	< 0.9	1.2	< 0.9	1.1
o-Xylene	95-47-6	q	700	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	7.1	6.1	7.8	6.1	4.5	7.4	5.9	5.9	5.5	5.5	4.9	2.8	5.7	4.8	2.1
Formaldehyde	50-00-0	q	33	y	y		+	15	14	17	14	11	15	13	11	14	11	9.4	6.2	12	8.6	3.2
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																						
Acetophenone	98-86-2	u		y			+	< 1	< 1	3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butoxyethanol	111-76-2	q		y		20	+	< 2	< 2	1.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-(2-Butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		3.8	4.5	9.5	4.1	4.2	3.4	4	4.6	3.1	2.6	< 2	< 2	< 2	< 2	< 2
Cumene	98-82-8	q		y			120	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
1-Methyl-2-Pyrrolidinone	872-50-4	q			y			< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 1	< 0.9	< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																						
Propionaldehyde	123-38-6	q		y			65	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Table C3. Building 173 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-03-04)

Compound Name	CAS Number	Quantitation[142]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																						
Benzaldehyde	100-52-7	q					190	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decanal	112-31-2	q					5.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Hexanal	66-25-1	q					58	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Hexanoic Acid	142-62-1	u					60	< 2	< 2	2.8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Menthol	89-78-1	u					270	3.6	< 2	4.3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Nonanal	124-19-6	q					13	< 2	2.5	5.7	< 2	2.6	2.5	3	2.5	< 2	4.8	< 2	< 2	< 2	< 2	< 2
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a	u						240	270	440	190	120	200	220	160	190	200	82	52	150	77	67
TVOC as Toluene	n/a	u						170	200	310	140	83	140	160	110	130	140	55	35	100	52	44
Abundant Chemicals – Analyzed by GC/MS																						
alkyl aromatic HC (20.3 min)		u						< 2	2.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Benzoic Acid	65-85-0	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	6.7
1-Butoxy-2-Propanol	5131-66-8	u						8.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Butylcyclohexane	1678-93-9	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cyclohexanone	108-94-1	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table C3. Building 173 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-03-04)

Compound Name	CAS Number	Quantitation[142]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Decamethylcyclopentasiloxane	541-02-6	u						30	78	81	42	24	36	54	30	31	49	13	15	15	12	3.9
n-Decane	124-18-5	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Heptane	142-82-5	q					+	< 1	< 1	< 1	1.3	< 1	< 1	< 1	< 1	< 1	1.7	< 1	< 1	1.3	< 1	< 1
Hexadecane	544-76-3	u						< 2	< 2	2.8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
d-Limonene	5989-27-5	q					+	29	28	44	11	2.9	12	14	9.5	21	26	7.3	< 2	14	4.1	< 2
Methylcyclohexane	108-87-2	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
b-Myrcene	123-35-3	u						2.7	2.5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Nonane	111-84-2	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentadecane	629-62-9	u						< 2	< 2	9.5	< 2	< 2	2.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
alpha-Pinene	80-56-8	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Propylene Glycol	57-55-6	u						2.9	4.1	4.7	3.9	< 2	< 2	2.5	2.4	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Tetradecane	629-59-4	u						< 2	< 2	8.6	< 2	< 2	2.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Texanol 1 & 3	25265-77-4	q						6.4	6.7	7.9	4.2	4.1	5.7	4.8	3.5	3.6	2.6	< 2	< 2	< 2	< 2	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Unidentified (rt: 26.95 min)		u						< 2	3.1	5.7	< 2	< 2	< 2	< 2	3.1	< 2	3.6	< 2	< 2	< 2	< 2	< 2

Table C3. Building 173 – Post-Occupancy #2 VOC Concentrations in μg/m³ (Data Collected 03-03-04)

Compound Name	CAS Number	Quantitation[142]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-2	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetone	67-64-1	q					+	21	19	21	19	9.8	18	16	13	16	13	11	6.8	16	9	6.1

Table C4. Building 173 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 04-27-04)

Compound Name	CAS Number	Quantitation[143]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-HW	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Chemicals with Published CRELs – Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	1.1	3	2	2	1	1	2	2	2	2	2	2	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1,4-Dichlorobenzene	106-46-7	u	800				300	< 1	< 1	< 1	< 1	< 1	< 1	< 1	4	< 1	< 1	< 1	< 1	< 1	< 1	1
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	100-41-4	q	2000	y	y		13	2.6	3	2	2	2	2	3	3	2	3	2	3	3	3	2
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	2	< 1	1	< 1	1	1	< 1	2	2	1	2	< 1	< 1	< 1
2-methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	1.0	1	< 1	< 1	1	< 1	1	1	< 1	1	< 1	1	< 1	1	1
Phenol	108-95-2	q	200	y			430	4.7	5	4	4	4	4	4	4	3	4	3	4	3	4	2
Styrene	100-42-5	q	900	y			630	1.2	1	< 1	< 1	< 1	< 1	1	< 1	< 1	1	< 1	< 1	< 1	1	< 1

[143] q: based on calibration standard
u: based on library search

Table C4. Building 173 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 04-27-04)

Compound Name	CAS Number	Quantitation[143]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-HW	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Tetrachloroethylene	127-18-4	q	35	y	y		+	1.2	2	1	1	1	1	1	1	1	2	1	1	1	1	1
Toluene	108-88-3	q	300	y	y		+	12	13	11	10	12	11	13	13	12	13	10	14	11	8	9
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m/p-Xylene	108-38-3 / 106-42-3	q	700	y			+	8.6	9	8	6	8	8	10	9	8	9	7	10	8	10	8
o-Xylene	95-47-6	q	700	y			+	3.3	3	3	3	3	3	4	3	3	4	3	4	3	4	3
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	15	14	14	14	11	10	11	10	13	14	12	12	13	12	6
Formaldehyde	50-00-0	q	33	y	y		+	25	23	21	23	20	17	19	19	23	23	21	20	20	20	9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																						
Acetophenone	98-86-2	u		y			+	3.9	4	4	1	4	4	4	4	3	4	3	4	2	3	4
2-Butoxyethanol	111-76-2	q		y		20	+	3.1	3	6	2	2	3	4	3	2	3	2	3	< 2	3	< 2
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		9.1	8	8	6	7	7	7	5	4	6	4	5	2	4	< 2
Cumene	98-82-8	q		y			120	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	108-10-1	q		y			+	< 1	1	< 1	< 1	< 1	< 1	< 1	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	3.2	3	3	2	3	3	4	4	3	3	3	4	3	4	3
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																						
Propionaldehyde	123-38-6	q		y			65	4.0	5	4	4	4	4	3	4	3	4	4	3	3	3	< 1

Table C4. Building 173 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 04-27-04)

Compound Name	CAS Number	Quantitation[143]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-HW	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																						
Acetic Acid	64-19-7	u					360	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Benzaldehyde	100-52-7	q					190	3.0	3	3	3	3	3	4	3	3	3	3	3	< 2	3	4
n-Butyl Acetate	123-86-4	u					930	< 3	4	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Decanal	112-31-2	q					5.9	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Hexanal	66-25-1	q					58	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Hexanoic Acid	142-62-1	u					60	3.4	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	3	< 2
Menthol	89-78-1	u					270	5.8	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
m-Methylacetophenone	585-74-0	u					37	< 3	< 3	< 3	< 2	3	3	< 2	3	3	< 3	< 2	3	< 2	3	4
Nonanal	124-19-6	q					13	4.4	5	4	3	4	3	5	3	3	3	3	4	6	5	< 2
Octanal	124-13-0	q					7.2	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Octanal	124-13-0	u																3				
Pentanal	110-62-3	q					22	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	6.6	5	4	8	4	5	3	8	4	6	9	3	4	3	< 1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a	u						470	530	390	340	400	390	510	410	350	470	340	390	360	400	250
TVOC as Toluene	n/a	u						270	310	220	210	230	220	290	240	200	270	190	230	210	220	130
Abundant Chemicals – Analyzed by GC/MS																						

Table C4. Building 173 – Post-Occupancy #3 VOC Concentrations in $\mu g/m^3$ (Data Collected 04-27-04)

Compound Name	CAS Number	Quantitation[143]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-HW	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Benzoic Acid	65-85-0	u						< 3	< 3	3	< 2	3	4	< 2	< 2	3	< 3	< 2	4	< 2	< 2	20
Butylcyclohexane	1678-93-9	q						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
C-6 branched alkane HC (7.5 min)		u						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
C-7 branched alkane HC (10.4 min)		u						< 3	3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
C-11 branched HC (20.9 min)		u						3.0	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
C-11 branched HC (21.4 min)		u						3.1	< 3	< 3	< 2	< 2	< 2	3	< 2	< 2	3	< 2	< 2	< 2	< 2	< 2
C-11 branched HC (21.5 min)		u						3.8	3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
C-12 Unstaturated HC (22.3 min)		u						3.1	3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	3	< 2	< 2	< 2	< 2	< 2
Cyclohexanone	108-94-1	q					+	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Decamethylcyclopentasiloxane	541-02-6	u						31	76	21	28	41	25	74	33	42	32	27	22	17	33	5
n-Decane	124-18-5	q					+	< 3	< 3	< 3	< 2	< 2	< 2	3	< 2	< 2	3	< 2	3	< 2	< 2	< 2
Dodecane	112-40-3	u					+	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	3	< 2	< 2	< 2	3	< 2
Ethyl Acetate	141-78-6	u					+	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	3	< 2
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
1-Ethyl-2-methylbenzene	611-14-3	u						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
1-Ethyl-3-methylbenzene	620-14-4	u						3.1	3	3	< 2	3	3	4	4	3	4	3	4	< 2	4	4
n-Heptane	142-82-5	q					+	3.1	3	3	3	3	3	4	4	3	4	3	4	3	2	2
Hexadecane	544-76-3	u						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Hexamethylcyclotrisiloxane	541-05-9	u						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2

Table C4. Building 173 – Post-Occupancy #3 VOC Concentrations in μg/m³ (Data Collected 04-27-04)

Compound Name	CAS Number	Quantitation[143]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-HW	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
d-Limonene	5989-27-5	q					+	8	10	5	12	3	3	4	3	3	9	8	3	6	7	< 2
Methylcyclohexane	108-87-2	q						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
N,N-Dibutyl Formamide	761-65-9	u						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	3	3	< 2
n-Nonane	111-84-2	q					+	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
n-Octane	111-65-9	q					+	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Pentadecane	629-62-9	u						< 3	< 3	3	< 2	< 2	< 2	< 2	4	< 2	< 3	< 2	< 2	< 2	< 2	< 2
2,4-Pentanedione	123-54-6	u						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	5	< 2
alpha-pinene	80-56-8	q					+	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
1-Piperidinecarboxaldehyde	2591-86-8	u						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
1-Propoxy-2-Propanol	1569-01-3	u						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Propylbenzene	103-65-1	u						< 3	< 3	< 3	< 2	3	3	3	3	4	< 3	< 2	5	< 2	3	3
Propylene Glycol	57-55-6	u						4.3	7	6	4	< 2	< 2	< 2	3	< 2	5	< 2	< 2	< 2	< 2	< 2
Tetradecane	629-59-4	u						3.1	< 3	3	< 2	3	< 2	< 2	4	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Texanol 1 & 3	25265-77-4	q						15	12	9	8	9	14	12	8	7	10	8	8	6	11	< 2
1,2,3-Trimethylbenzene	526-73-8	q						< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	< 3	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Unidentified (rt: 26.95 min)		u						< 3	3	3	< 2	3	5	5	4	3	< 3	< 2	< 2	< 2	4	< 2
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																						

Table C4. Building 173 – Post-Occupancy #3 VOC Concentrations in $\mu g/m^3$ (Data Collected 04-27-04)

Compound Name	CAS Number	Quantitation[143]	CREL	ARB TAC	Prop. 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 2-1	Site 2-2	Site 3-1	Site 4-1	Site 4-HW	Site 5-1	Site 5-2	Site 6-1	Site 6-2	Site 7-1	Site 7-2	AHU 3-1	AHU 3-2	VAU 3-1
Acetone	67-64-1	q					+	34	31	30	33	30	27	27	29	26	31	29	26	27	27	22

APPENDIX D - BUILDING 174: VOC RESULTS

Table D1. Building 174 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 06-04-03)

Compound Name	CAS Number	Quantitation type[144]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Chemicals with Published CRELs – Analyzed by GC/MS																					
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	100-41-4	q	2000	y	y		13	1.1	1.3	< 1	1.1	1.1	< 1	1.1	1	1.1	1	1	1.2	1.1	< 1
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	< 1	1.8	< 1
Phenol	108-95-2	q	200	y			430	5.6	5.6	2.7	3.7	4.2	3	3.3	3.3	3.9	2.9	3.1	3.8	3.5	1.7
Styrene	100-42-5	q	900	y			630	1.2	1.3	1.1	1.2	1.2	1.1	< 1	1.1	1.1	1.1	1.1	< 1	1.2	< 1
Tetrachloroethylene	127-18-4	q	35	y	y		+	2.3	2.4	2.1	2.3	2.2	2.1	2.2	2.2	2.3	2.1	2.2	1	2.1	2
Toluene	108-88-3	q	300	y	y		+	3.7	3.5	2.1	3.3	3.1	2.4	3.4	3.1	3.8	2.9	3	4.5	3.6	1.4
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

[144] q: based on calibration standard
u: based on library search

Table D1. Building 174 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 06-04-03)

Compound Name	CAS Number	Quantitation type[144]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	1.9	2.1	1.3	1.7	1.7	1.4	1.6	1.6	1.8	1.5	1.6	2.1	1.8	1.1
o-Xylene	95-47-6	q	700	y			+	1.3	1.4	1.1	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.4	1.3	1.1
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																					
Acetaldehyde	75-07-0	q	9	y	y		340	8.1	8.1	6.1	3.6	6.7	5.4	5.9	4.6	6.3	5.7	6.9	7	6.2	3.9
Formaldehyde	50-00-0	q	33	y	y		+	27	24	23	18	22	18	20	14	21	19	22	28	26	11
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																					
Acetophenone	98-86-2	u		y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.1	< 1	1.6	< 1	1.7	< 1	1.2
2-Butoxyethanol	111-76-2	u		y		20	+	3.3	6.7	< 2	< 2	< 2	< 2	< 2	1.7	< 2	1.9	1.8	3.9	3	< 2
2-(2-Butoxyethoxy)-Ethanol	112-34-5	q		y				2.5	2.6	< 2	< 2	2.3	< 2	< 2	2.1	2.2	2.1	2.1	2.3	2.2	< 2
Caprolactam	105-60-2	q		y		100		9.9	5.5	4.1	7.9	7.8	5.4	5.9	6.3	7	4.8	4.7	3.3	3.5	< 2
2-(2-ethoxyethoxy) Ethanol	111-90-0	u		y				< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	6.5	< 3	< 3	4.3	< 3	< 3
1-Methyl-2-Pyrrolidinone	872-50-4	q			y			< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95-63-6	u		y	y		780	4.6	6.6	2.7	5.2	5	3.7	4.3	5	6.2	3.7	2.9	4.7	3.9	3.5
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																					
Propionaldehyde	123-38-6	q		y			65	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																					
Benzaldehyde	100-52-7	u					190	2.7	< 3	< 3	< 3	< 3	< 3	< 3	< 3	2.8	< 3	< 3	< 2	< 3	< 3
Decanal	112-31-2	u					5.9	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
Hexanoic acid	142-62-1	u					60	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
Indene	95-13-6	q					43	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
Nonanal	124-19-6	u					13	20	21	6.6	12	20	10	9	11	11	11	13	8.7	8.4	< 3

Table D1. Building 174 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 06-04-03)

Compound Name	CAS Number	Quantitation type[144]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Octanal	124-13-0	u					7.2	3.8	< 3	< 3	2.9	3.9	< 3	2.5	2.6	3.5	2.6	< 3	3.1	2.9	< 3
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																					
Butyraldehyde	123-73-9	q					28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																					
TVOC as Chlorobenzene-d5	n/a							310	380	96	180	200	110	150	150	180	140	140	180	160	39
TVOC as Toluene	n/a							71	83	21	39	45	24	34	33	41	30	31	40	36	8.4
Abundant Chemicals – Analyzed by GC/MS																					
Benzoic Acid	65-85-0	u						< 3	< 3	< 3	< 3	< 3	< 3	2.9	< 3	3.6	< 3	< 3	< 2	< 3	6.3
Butylcyclohexane	1678-93-9	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
C-11 branched HC (20.8 min)		u						< 3	5.5	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	2.9	< 3
C-11 branched HC (21.3 min)		u						< 3	7.6	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
C-11 branched HC (21.4 min)		u						3.7	6.7	< 3	2.5	2.7	< 3	< 3	< 3	< 3	< 3	< 3	3.2	3.2	< 3
C-11 branched HC (21.5 min)		u						< 3	7.3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
Cyclohexanone	108-94-1	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
Decamethylcyclopentasiloxane	541-02-6	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
n-Decane	124-18-5	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 3	2.6	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
2-Ethyl-1-Hexanol	104-76-7	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
1-Ethyl-2-methylbenzene	611-14-3	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
1-Ethyl-3-methylbenzene	620-14-4	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
n-Heptane	142-82-5	q					+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
d-Limonene	5989-27-5	u					+	2.9	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	2.6	< 3	< 3

Table D1. Building 174 – Pre-Occupancy VOC Concentrations in μg/m³ (Data Collected 06-04-03)

Compound Name	CAS Number	Quantitation type[144]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Longifolene	475-20-7	u						8.8	< 3	< 3	2.8	2.9	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
Methylcyclohexane	108-87-2	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
n-Nonane	111-84-2	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
Propylbenzene	103-65-1	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
Propylene Glycol	57-55-6	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3.3	3.2	< 3
Texanol 1 & 3	25265-77-4	u						85	84	18	27	38	18	27	23	29	16	22	35	30	< 3
1,2,3-Trimethylbenzene	526-73-8	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
1,3,5-Trimethylbenzene	108-67-8	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
n-Undecane	1120-21-4	q					+	< 3	2.8	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
Unidentified (rt: 26.95 min)		u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 3	< 3
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																					
Acetone	67-64-1	q					+	22	16	13	20	22	9.3	43	7.4	17	16	23	34	42	8.1

Table D2. Building 174 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-07-03)

Compound Name	CAS Number	Quantitation type[145]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Chemicals with Published CRELs – Analyzed by GC/MS																				
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 4	< 4	< 3	< 4	< 4	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9
Ethylene Glycol	107-21-1	q	400	y				< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-methoxyethanol	109-86-4	q	60	y	y		+	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 4	< 4	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	17	1	< 0.9
Phenol	108-95-2	q	200	y			430	6.8	6.2	6.1	8.6	7	8.2	6.1	4.7	5.5	5.7	4.5	4.9	3.2
Styrene	100-42-5	q	900	y			630	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9
Toluene	108-88-3	q	300	y	y		+	2.5	2	2.8	4.2	2.4	6.8	2.3	< 1	2.9	2.4	4.4	3.9	1.1
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2

[145] q: based on calibration standard
u: based on library search

Table D2. Building 174 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-07-03)

Compound Name	CAS Number	Quantitation type[145]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	1.3	< 1	1.6	2.6	1.4	2.4	1.3	< 1	1.6	1.5	1.5	1.4	< 0.9
o-Xylene	95-47-6	q	700	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																				
Acetaldehyde	75-07-0	q	9	y	y		340	6.1	6.9	7.3	11	7.2	9.4	6.7	5	7.6	7.3	5.5	6	3.8
Formaldehyde	50-00-0	q	33	y	y		+	15	16	19	24	20	25	16	11	18	18	12	16	6.1
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																				
Acetophenone	98-86-2	u		y			+	< 1	< 1	6.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.6
2-Butoxyethanol	111-76-2	q		y		20	+	3	4.3	< 2	3.8	< 2	3.5	< 2	< 2	3.4	< 2	< 2	2.1	< 2
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		6.1	6.7	9.7	19	11	13	9.1	5.4	8	9.6	< 2	2.5	< 2
Cumene	98-82-8	q		y			120	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9
Methyl Isobutyl Ketone	108-10-1	u		y			+	< 1	< 1	< 1	< 1	< 1	2.9	1.9	< 1	< 1	< 1	< 1	< 1	< 0.9
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																				
Propionaldehyde	123-38-6	q		y			65	2.7	2.5	3.2	3.8	2.4	3	2.2	< 2	2.1	2.7	1.4	2	< 1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																				
Benzaldehyde	100-52-7	q					190	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
Decanal	112-31-2	q					5.9	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
Heptanal	111-71-7	q					23	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
Hexanal	66-25-1	q					58	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2

Table D2. Building 174 – Post-Occupancy #1 VOC Concentrations in μg/m³ (Data Collected 10-07-03)

Compound Name	CAS Number	Quantitation type[145]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Nonanal	124-19-6	q					13	4.2	5.7	3.8	7.1	4.8	5	5.3	4.6	3.1	3.4	< 3	< 3	< 2
Octanal	124-13-0	u					7.2	< 3	3.2	3.6	5.2	3.7	< 3	3.2	< 3	< 3	< 3	< 3	< 3	< 2
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																				
Butyraldehyde	123-73-9	q					28	1.7	2.4	5.7	4.5	6.1	2.7	3.5	< 2	2.6	2.7	< 1	2.4	< 1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																				
TVOC as Chlorobenzene-d5	n/a							350	190	230	380	240	360	200	120	240	220	230	200	64
TVOC as Toluene	n/a							230	120	150	260	150	240	130	74	150	140	150	130	41
Abundant Chemicals – Analyzed by GC/MS																				
Benzoic Acid	65-85-0	u						< 3	< 3	< 3	< 3	< 3	4.8	< 3	< 3	< 3	< 3	< 3	< 3	5.1
1-Butoxy-2-Propanol	5131-66-8	u						< 3	6.1	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
N-butyl-1-Butanamine	111-92-2	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	16	9.3	< 2
Butylcyclohexane	1678-93-9	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
C-10 branched HC (19.0 min)		u						11	< 3	4.9	5.8	5.7	4.8	3	< 3	4.4	4.6	3.9	3.7	< 2
C-11 branched HC (19.4 min)		u						6.3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	2.9	< 2
C-11 branched HC (19.5 min.)		u						5.9	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3.4	< 3	< 3	< 2
C-11 branched HC (20.5 min)		u						11	< 3	4.8	6.8	4.6	4.9	3	< 3	3.9	4.4	2.7	4	< 2
C-11 branched HC (20.75 min)		u						5.1	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
C-11 branched HC (20.9 min)		u						18	3.9	< 3	9.4	6.7	7.1	4.2	< 3	5.7	6.4	3.9	5.3	< 2
C-11 branched HC (21.4 min)		u						14	3.4	5.7	8.5	5.9	6.1	3.5	< 3	4.7	5.5	3.4	4.8	< 2
C-11 branched HC (21.5 min)		u						13	3.2	5.3	8.3	5.3	5.5	3.3	< 3	4.4	5	4.1	5.4	< 2
Cyclohexanone	108-94-1	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
Decamethylcyclopentasiloxane	541-02-6	u						27	8.4	14	21	18	33	18	8.7	13	12	< 3	12	3.4

Table D2. Building 174 – Post-Occupancy #1 VOC Concentrations in μg/m^3 (Data Collected 10-07-03)

Compound Name	CAS Number	Quantitation type[145]	CREL (μg/m^3)	ARB TAC	Prop 65	Other Limits (μg/m^3)	Olfactory Threshold (μg/m^3)	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
n-Decane	124-18-5	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
Dodecane	112-40-3	u					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	5	< 3	< 3	< 3	< 2
2-Ethyl-1-hexanoic Acid	149-57-5	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
n-Heptane	142-82-5	q					+	< 2	< 2	< 2	2.1	< 2	2	< 2	< 2	2.1	< 2	< 1	< 1	< 1
Hexadecane	544-76-3	u						< 3	6.7	5	7.3	4.9	7.4	5.1	< 3	6.4	4.8	< 3	< 3	< 2
d-Limonene	5989-27-5	u					+	12	3.6	5.8	16	6.5	14	< 3	< 3	4.5	5.7	6.2	9.6	< 2
Methylcyclohexane	108-87-2	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
N,N-dibutyl Formamide	761-65-9	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3.8	2.6	< 2
n-Nonane	111-84-2	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
Pentadecane	629-62-9	u						< 3	7.8	5.4	7.9	5.2	7.7	4.8	3.1	7.2	5	< 3	< 3	< 2
alpha-pinene	80-56-8	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
beta-Pinene	127-91-3	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
Propylene Glycol	57-55-6	u						4.4	< 3	< 3	< 3	< 3	4.4	< 3	< 3	< 3	< 3	< 3	< 3	< 2
Tetradecane	629-59-4	u						< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
Texanol 1 & 3	25265-77-4	q						18	8.9	9.9	17	10	14	9.7	4.5	8.9	9.4	< 3	8.1	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
n-Undecane	1120-21-4	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 2
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																				
Acetone	67-64-1	q					+	9.4	9.1	8.9	13	8.7	12	8.1	6.6	9	9.2	5.6	9.1	5.4

Table D3. Building 174 – Post-Occupancy #2 - VOC Concentrations in μg/m³ (Data Collected 02-04-04)

Compound Name	CAS Number	Quantitation type[146]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Chemicals with Published CRELs – Analyzed by GC/MS																					
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 4	< 3	< 4	< 3	< 3	< 2	< 3	< 2	< 2	< 2	< 3	< 4	< 3
1,4-Dichlorobenzene	106-46-7	u	800				300	< 0.9	< 1	< 0.9	3.3	1.1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 1
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 1
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 1
Ethylbenzene	100-41-4	q	2000	y	y		13	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	1.2	< 0.9	1.2	< 1	< 1	< 1
Ethylene Glycol	107-21-1	q	400	y				< 10	< 20	< 10	< 20	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 20	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 5	< 4	< 5	< 4	< 4	< 4	< 4	< 3	< 3	< 3	< 5	< 5	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 1
Phenol	108-95-2	q	200	y			430	5.2	6.3	5.4	7.6	5.1	5	3.9	5.4	9.1	4.3	7.6	4.6	5.1	3.1
Styrene	100-42-5	q	900	y			630	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 1
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 0.9	< 1	< 0.9	2.4	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 1
Toluene	108-88-3	q	300	y	y		+	2.5	3.2	3.1	3.6	2.7	2.3	1.7	3.1	6.1	2.4	6.9	2.4	2.1	1.3
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 2	< 2	< 2

[146] q: based on calibration standard
u: based on library search

Table D3. Building 174 – Post-Occupancy #2 - VOC Concentrations in μg/m³ (Data Collected 02-04-04)

Compound Name	CAS Number	Quantitation type[146]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Trichloroethylene	79-01-6	q	600	y	y		+	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 1
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	1.8	2.4	2.3	2.6	1.9	1.5	< 0.9	2.1	4.8	1.5	4.8	1.6	1.4	< 1
o-Xylene	95-47-6	q	700	y			+	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	1.6	< 0.9	1.6	< 1	< 1	< 1
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																					
Acetaldehyde	75-07-0	q	9	y	y		340	6.6	3.7	6.8	5.9	5.6	7.1	4.1	6.5	8.6	7.2	8.3	4.8	4.7	1.7
Formaldehyde	50-00-0	q	33	y	y		+	15	11	16	15	16	17	9.9	15	22	17	25	11	11	2.6
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																					
Acetophenone	98-86-2	u		y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.7	< 1	< 1	< 1	< 1	< 1
2-Butoxyethanol	111-76-2	q		y		20	+	1.5	< 2	1.9	2.9	1.8	< 2	< 2	2.1	6.4	< 1	4.2	< 2	< 2	< 2
2-(2-Butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		5.6	4.9	5.1	10	6.9	5.9	2.3	5	10	3.4	8.4	< 3	< 3	< 2
Cumene	98-82-8	q		y			120	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 1
2-(2-Ethoxyethoxy) Ethanol	111-90-0	u		y				< 2	21	4.4	5.4	3.2	3.7	< 2	3.9	6.5	5.4	18	< 3	< 3	< 3
Methyl Isobutyl Ketone	108-10-1	u		y			+	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	3.7	< 0.9	3.5	< 0.9	< 1	< 1	< 1
Methyl Methacrylate	80-62-6	u		y			+	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
1-Methyl-2-Pyrrolidinone	872-50-4	q			y			< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	< 0.9	< 1	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	2	< 0.9	1.9	< 1	< 1	< 1
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																					
Propionaldehyde	123-38-6	q		y			65	1.9	< 2	1.9	1.8	2.1	1.9	1.3	2	1.2	1.6	1.2	< 2	< 2	< 1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																					
Benzaldehyde	100-52-7	q					190	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	2.7	< 2	2.7	< 3	< 3	< 3
Decanal	112-31-2	q					5.9	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3

Table D3. Building 174 – Post-Occupancy #2 - VOC Concentrations in μg/m³ (Data Collected 02-04-04)

Compound Name	CAS Number	Quantitation type[146]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Heptanal	111-71-7	q					23	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
Hexanal	66-25-1	q					58	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
Menthol	89-78-1	u					270	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	4.3	< 2	4	< 3	< 3	< 3
Nonanal	124-19-6	q					13	2.3	3.2	2.7	< 3	< 2	< 2	< 2	< 2	5.6	< 2	7.7	< 3	< 3	2.5
Octanal	124-13-0	u					7.2	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																					
Butyraldehyde	123-73-9	q					28	< 1	< 2	2.5	1.2	1.8	2.1	4.3	< 1	1.6	2.2	1.4	4.1	< 2	< 1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																					
TVOC as Chlorobenzene-d5	n/a	u						200	310	230	340	240	230	150	300	510	210	560	150	170	43
TVOC as Toluene	n/a	u						130	210	180	260	170	170	99	220	450	160	390	110	120	28
Abundant Chemicals – Analyzed by GC/MS																					
alkyl aromatic HC (20.3 min)		u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	3.9	< 3	< 3	< 3
1-Butoxy-2-Propanol	5131-66-8	u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	6	< 2	< 3	< 3	< 3
Butylated Hydroxytoluene	128-37-0	u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
n-Butyl-1-butanamine	111-92-2	u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	6.2	< 3	< 3
Butylcyclohexane	1678-93-9	q						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
C-14 branched HC (27.3 min)		u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	4.4	< 2	12	< 3	< 3	< 3
Cyclohexanone	108-94-1	q					+	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
Decamethylcyclopentasiloxane	541-02-6	u						26	45	29	45	50	41	30	71	68	31	76	< 3	21	3.5
n-Decane	124-18-5	q					+	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
Dodecane	112-40-3	u					+	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	2.3	3.9	< 3	< 3	< 3
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3

Table D3. Building 174 – Post-Occupancy #2 - VOC Concentrations in μg/m³ (Data Collected 02-04-04)

Compound Name	CAS Number	Quantitation type[146]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
2-Ethyl-1-Hexanol	104-76-7	q					+	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	4.2	< 2	3.1	< 3	< 3	< 3
Heptadecane	629-78-7	u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	3.2	< 2	< 2	< 3	< 3	< 3
n-Heptane	142-82-5	q					+	1.9	2.1	2.6	1.9	1.6	1.4	< 1	1.3	2.5	2.3	3.2	< 2	< 2	< 1
Hexadecane	544-76-3	u						< 2	< 3	4.3	4.7	3.7	3.5	2.7	4.1	8.1	4	9.5	< 3	< 3	< 3
Hexamethylcyclotrisiloxane	541-05-9	u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
d-Limonene	5989-27-5	q					+	9.6	22	19	22	17	20	8.9	26	66	18	30	11	17	< 3
1-Methoxy-2-Propanol	107-98-2	u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	3.4	< 2	< 3	< 3	< 3
Methylcyclohexane	108-87-2	q						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
3-Methylhexane	589-34-4	u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	2.3	< 2	< 3	< 3	< 3
b-Myrcene	123-35-3	u						< 2	5.5	2.5	3.4	2.4	2.5	< 2	3	< 2	2.4	5.6	< 3	< 3	< 3
N,N-Dibutyl Formamide	761-65-9	u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	4.8	< 3	< 3
n-Nonane	111-84-2	q					+	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
n-Octane	111-65-9	u					+	3.5	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
Pentadecane	629-62-9	u						< 2	< 3	4.3	5.6	3.8	3.4	2.8	5.1	9.1	4.4	8.6	< 3	< 3	< 3
alpha-Pinene	80-56-8	q					+	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
beta-Pinene	127-91-3	q						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
1-Propoxy-2-Propanol	1569-01-3	u						< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	5.1	< 2	< 2	< 3	< 3	< 3
Propylene Glycol	57-55-6	u						< 2	< 3	2.8	4.3	< 2	5.3	< 2	3	4.5	2.8	6.1	< 3	< 3	< 3
Tetradecane	629-59-4	u						< 2	< 3	< 2	3.5	< 2	< 2	< 2	3	4.8	< 2	4.9	< 3	< 3	< 3
Texanol 1 & 3	25265-77-4	q						11	12	8.1	9.9	6.7	6	3.3	6.7	16	5.4	15	< 3	4.5	< 3
1,3,5-Trimethylbenzene	108-67-8	q					+	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3
n-Undecane	1120-21-4	q					+	< 2	< 3	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 3	< 3

Table D3. Building 174 – Post-Occupancy #2 - VOC Concentrations in μg/m³ (Data Collected 02-04-04)

Compound Name	CAS Number	Quantitation type[146]	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Unidentified (rt: 26.95 min)		u						< 2	< 3	< 2	6.4	2.9	2.4	< 2	3	5.9	5.8	12	< 3	< 3	< 3
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																					
Acetone	67-64-1	q					+	11	9.6	14	12	12	13	8.1	10	19	12	18	8.2	7.5	3.6

Table D4. Building 174 – Post-Occupancy #3 - VOC Concentrations in μg/m³ (Data Collected 04-21-04)

Compound Name	CAS Number	Quantitation typ[147] e	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	4-HW	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Chemicals with Published CRELs – Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	< 1	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	< 0.9	1.5	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Hexane	110-54-3	q	7000	y			+	< 1	1.7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 1
2-methoxyethanol	109-86-4	q	60	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 4	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 0.9	0.93	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	0.92	< 0.9	< 0.9
Phenol	108-95-2	q	200	y			430	4	7.8	2.6	2.8	3	3.7	5.3	3.3	3.1	2.9	2.7	2.7	3	3.6	1.7
Styrene	100-42-5	q	900	y			630	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9
Tetrachloroethylene	127-18-4	q	35	y	y		+	1.2	2.1	1.2	1.3	1.2	1.2	1.3	1.2	1.2	1.1	1.1	1.1	1.1	1.2	1.1
Toluene	108-88-3	q	300	y	y		+	2.1	15	1.8	2.1	1.9	2.2	2.2	3	1.9	1.7	1.9	1.8	2	2.7	1.4
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethylene	79-01-6	q	600	y	y		+	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	1.8	4.9	1.4	1.5	1.5	1.6	1.8	1.7	1.5	1.4	1.5	1.4	1.9	2.1	1.1
o-Xylene	95-47-6	q	700	y			+	0.9	2	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	0.86	0.96	< 0.9

[147] q: based on calibration standard
u: based on library search

Table D4. Building 174 – Post-Occupancy #3 - VOC Concentrations in μg/m³ (Data Collected 04-21-04)

Compound Name	CAS Number	Quantitation typ[147] e	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	4-HW	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Chemicals with Published CRELs – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	6.8	< 1	6.5	6.4	8.4	7.2	5.8	6.2	6.1	7.1	7.8	6.4	5.9	5.4	2.1
Formaldehyde	50-00-0	q	33	y	y		+	16	2.1	13	16	16	17	16	15	15	15	16	15	15	15	3.4
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by GC/MS																						
2-Butoxyethanol	111-76-2	q		y		20	+	1.9	5.3	1.5	1.9	1.7	2.4	2.3	2.2	1.5	1.6	1.9	1.5	< 1	2.2	< 1
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 1	2.1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Caprolactam	105-60-2	q		y		100		8.5	9.6	3.7	6.6	7.4	7.4	12	4	4.9	4.2	4.5	4.2	2.4	1.9	< 2
Cumene	98-82-8	q		y			120	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9
Cyclohexane	110-82-7	u		y			+	< 2	10	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl Isobutyl Ketone	108-10-1	q		y			+	< 0.9	1.5	< 0.9	< 0.9	< 0.9	1.3	1.2	1.5	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	0.89	< 0.9
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 0.9	1	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.8	< 0.9	< 0.9
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	< 0.9	1.3	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	0.92	0.96	< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists – Analyzed by HPLC (Aldehyde-DNPH)																						
Propionaldehyde	123-38-6	q		y			65	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chemicals with Olfactory Thresholds – Analyzed by GC/MS																						
Benzaldehyde	100-52-7	q					190	2.3	4	< 2	2.2	2.3	2.4	2.5	2.4	2.2	< 2	2.2	< 2	2.1	2.4	< 2
Decanal	112-31-2	q					5.9	< 2	3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Hexanal	66-25-1	q					58	< 2	3.6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.5	3.3	< 2
Hexanoic Acid	142-62-1	u					60	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Nonanal	124-19-6	q					13	5.1	11	3.8	4.7	4.5	5.3	7	5	6.2	4.3	5.8	5.1	5	7.2	2.2
Octanal	124-13-0	q					7.2	< 2	2.4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentanal	110-62-3	q					22	< 2	8.6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chemicals with Olfactory Thresholds – Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	< 1	< 1	< 1	< 1	2.4	1.5	< 1	2.9	2.5	1.2	< 1	< 1	< 1	2.9	< 1

Table D4. Building 174 – Post-Occupancy #3 - VOC Concentrations in μg/m³ (Data Collected 04-21-04)

Compound Name	CAS Number	Quantitation typ[147] e	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	4-HW	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
Total Volatile Organic Compounds (TVOC) – Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a	u						240	1300	160	200	250	260	310	300	270	210	200	180	180	300	88
TVOC as Toluene	n/a	u						150	730	96	120	150	160	180	180	160	120	120	100	100	170	48
Abundant Chemicals – Analyzed by GC/MS																						
Benzoic Acid	65-85-0	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	8.7
Butylcyclohexane	1678-93-9	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-14 branched HC (27.3 min)		u						< 2	< 2	< 2	3.5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3.7	< 2	< 2	< 2
Cyclohexanone	108-94-1	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decamethylcyclopentasiloxane	541-02-6	u						32	130	29	28	42	68	53	79	81	54	27	21	18	37	10
n-Decane	124-18-5	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2,3-Dimethylpentane	565-59-3	u						< 2	17	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
cis-1,3-Dimethylcyclopentane	2532-58-3	u						< 2	11	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
trans-1,3-Dimethylcyclopentane	1759-58-6	u						< 2	17	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Dodecane	112-40-3	u					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.2	< 2	< 2	< 2	< 2
Ethylcyclopentane	1640-89-7	u						< 2	10	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 2	2.3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 2	3.9	< 2	< 2	< 2	2.5	2.6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Heptane	142-82-5	q					+	3.2	110	< 1	1.9	1.5	1.6	1.6	1.9	1.5	1.4	1.7	1.4	< 1	2.1	< 1
Hexadecane	544-76-3	u						2.3	6	2.9	3.5	3.2	2.2	< 2	3.5	3.8	3.7	4	3.9	< 2	< 2	< 2
Hexamethylcyclotrisiloxane	541-05-9	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3	< 2
d-Limonene	5989-27-5	q					+	3.2	5.9	2.9	5.4	20	7.7	4.9	3.5	3.2	4	3.5	3.9	6.3	6.2	< 2
Methylcyclohexane	108-87-2	q						< 2	11	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Methylhexane	591-76-4	u						< 2	160	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
3-Methylhexane	589-34-4	u						< 2	190	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
N,N-Dibutyl Formamide	761-65-9	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	8.5	< 2

Table D4. Building 174 – Post-Occupancy #3 - VOC Concentrations in μg/m³ (Data Collected 04-21-04)

Compound Name	CAS Number	Quantitation typ[147] e	CREL (μg/m³)	ARB TAC	Prop 65	Other Limits (μg/m³)	Olfactory Threshold (μg/m³)	1-1	1-2	2-1	3-1	3-2	4-1	4-HW	5-1	5-2	6-1	7-1	7-2	AHU 4-1	AHU 4-2	VAU 4-1
n-Nonane	111-84-2	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Octamethylcyclotetrasiloxane	556-67-2	u						< 2	8.6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Octane	111-65-9	q					+	3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentadecane	629-62-9	u						< 2	7	2.5	3.1	3.1	3.7	4.1	4.7	3.9	3.5	4.2	3.4	< 2	< 2	< 2
alpha-pinene	80-56-8	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Propylene Glycol	57-55-6	u						2.6	12	< 2	< 2	< 2	< 2	5	6.7	< 2	2.2	< 2	< 2	< 2	2.6	< 2
Tetradecane	629-59-4	u						< 2	< 2	< 2	< 2	< 2	< 2	< 2	3.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Texanol 1 & 3	25265-77-4	q						16	31	6.8	6.6	6.2	7	14	6.8	6.3	5.5	5.9	6.4	< 2	6.8	2.1
1,2,3-Trimethylbenzene	526-73-8	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Unidentified (rt: 26.95 min)		u						< 2	< 2	< 2	5.4	< 2	3.3	3.1	2.7	5.5	2.6	< 2	2.4	< 2	< 2	< 2
Abundant Chemicals – Analyzed by HPLC (Aldehyde-DNPH)																						
Acetone	67-64-1	q					+	14	2.5	13	12	14	14	12	16	14	13	14	11	13	12	5

APPENDIX E - BUILDING 225: VOC RESULTS

Table E1. Building 225 – Pre-Occupancy #1 - VOC Concentrations in $\mu g/m^3$ (Sampled on 02-24-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 6-1	Site 6-2	Outdoor Air
Chemicals with Published CRELs									
Benzene	71-43-2	60			y	y	1.8	1.9	2.1
t-Butyl methyl ether	1634-04-4	8000					3.6	4.2	5.5
Carbon disulfide	75-15-0	800					< 5	< 5	< 5
Carbon tetrachloride	56-23-5	40					< 5	< 5	< 5
Chlorobenzene	108-90-7	1000					< 1	< 1	< 1
Chloroform	67-66-3	300			y	y	< 2	< 2	< 2
1,2-Dibromomethane	106-93-4	0.8					< 1	< 1	< 1
1,2-Dichloroethane	107-06-2	400					< 2	< 2	< 2
1,1-Dichloroethene	106-46-7	800					4.8	2.8	3.5
1,4-Dichlorobenzene	57-35-4	70					< 1	< 1	< 1
Ethylbenzene	100-41-4	2000		13	y	y	1.8	2.1	1.4
Ethylene Glycol	107-21-1	400			y		< 100	< 100	< 100
n-Hexane	110-54-3	7000			y		1.8	1.9	2.1
Methylene chloride	75-09-2	400			y	y	0.6	1.0	0.6
Naphthalene	91-20-3	9		79	y	y	< 1	0.2	< 1
Phenol	108-95-2	200		430	y	y	1.6	5.6	0.2
2-Propanol	67-63-0	7000			y		9.8	8.2	6.2
Styrene	100-42-5	900		630	y		< 1	0.2	< 1
Tetrachloroethene	127-18-4	35			y	y	0.6	0.5	0.8
Toluene	108-88-3	300			y	y	38.1	41.3	23.7

Table E1. Building 225 – Pre-Occupancy #1 - VOC Concentrations in $\mu g/m^3$ (Sampled on 02-24-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 6-1	Site 6-2	Outdoor Air
1,1,1-Trichloroethane	71-55-6	1000			y		1.1	0.5	1.1
Trichloroethene	79-01-6	600			y	y	< 1	< 1	< 1
m & p-Xylenes	108-38-3/106-42-3	700			y		6.1	7.7	4.6
o-Xylene	95-47-6	700			y		1.6	2.1	1.4
Acetaldehyde	75-07-0	9		340	y	y	2.8	3.1	2.2
Formaldehyde	50-00-0	33			y	y	4.1	5.7	2.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists									
2-Butoxyethanol	111-76-2		20		y		< 2	< 2	< 2
Caprolactam	105-60-2		100		y		7.3	8.5	0.7
1,2-Dichlorobenzene	95-50-1						< 1	< 1	< 1
1,2,4-Trimethylbenzene	95-63-6			780	y	y	1.1	1.6	0.9
Trichlorofluoromethane	75-69-4						3.4	< 10	4.8
Trichlorofluoromethane	27154-33-2						< 5	< 5	< 5
Chemicals with Olfactory Thresholds									
Butyl acetate	123-86-4			930			< 2	< 2	< 2
Hexanal	66-25-1			58			0.7	1.4	2.1
Nonanal	124-19-6			13			6.6	8.5	3.0
Pentanal	110-64-3			22			< 2	< 2	< 2
4-Phenylcyclohexene	4994-16-5			2.5			< 1	< 1	< 1
Total Volatile Organic Compounds									
TVOC							212.7	271.1	127.1
Other Abundant Chemicals									

Table E1. Building 225 – Pre-Occupancy #1 - VOC Concentrations in μg/m^3 (Sampled on 02-24-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 6-1	Site 6-2	Outdoor Air
1-Butanol	71-36-3						1.8	4.9	0.6
2-Butanone	78-93-3						3.6	4.0	2.7
Butylated hydroxytoluene	128-37-0						< 1	< 1	< 1
n-Decane	124-18-5						4.5	7.5	1.1
Dimethyldisulfide	624-92-0						< 1	< 1	< 1
n-Dodecane	112-40-3						0.9	1.4	0.2
Ethyl acetate	141-78-6						1.4	5.4	0.9
2-Ethyl-1-hexanol	104-76-7						1.4	3.8	0.2
4-Ethyltoluene	622-96-8						< 1	1.6	0.2
d-Limonene	5989-27-5						< 1	< 1	< 1
4-Methyl-2-pentanone	108-10-1						2.3	3.1	1.6
3-Methylpentane	96-14-0						< 4	< 4	< 4
n-Nonane	111-84-2						1.8	3.1	0.7
n-Octane	111-65-9						1.4	1.9	1.1
a-Pinene	80-56-8						< 1	< 1	< 1
2-Propanone	67-64-1						62.4	65.0	44.4
Texanol 1 & 3	25265-77-4						2.3	4.0	0.5
1,3,5-Trimethylbenzene	108-67-8						0.5	0.5	0.2
TXIB	6846-50-0						< 1	< 1	< 1
n-Undecane	1120-21-4						2.0	4.2	0.7

Table E2. Building 225 – Pre-Occupancy #2 - VOC Concentrations in $\mu g/m^3$ (Sampled on 04-22-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 6-1 (north)	Site 6-1 (south)	OA
Chemicals with Published CRELs									
Benzene	71-43-2	60			y	y	1.3	1.0	1.9
t-Butyl methyl ether	1634-04-4	8000					1.3	2.5	0.5
Carbon disulfide	75-15-0	800					< 5	< 5	< 5
Carbon tetrachloride	56-23-5	40					< 5	< 5	< 5
Chlorobenzene	108-90-7	1000					< 1	< 1	< 1
Chloroform	67-66-3	300			y	y	< 2	< 2	< 2
1,2-Dibromomethane	106-93-4	0.8					< 1	< 1	< 1
1,2-Dichloroethane	107-06-2	400					< 2	< 2	< 2
1,1-Dichloroethene	106-46-7	800					< 1	1.8	< 1
1,4-Dichlorobenzene	57-35-4	70					< 1	< 1	< 1
Ethylbenzene	100-41-4	2000		13	y	y	1.0	1.2	0.9
Ethylene glycol	107-21-1	400			y		< 1	62.0	< 1
n-Hexane	110-54-3	7000			y		0.7	0.3	0.6
Methylene chloride	75-09-2	400			y	y	0.5	0.7	0.3
Naphthalene	91-20-3	9		79	y	y	< 1	< 1	< 1
Phenol	108-95-2	200		430	y	y	1.9	4.6	< 1
2-Propanol	67-63-0	7000			y		0.5	2.4	0.7
Styrene	100-42-5	900		630	y		< 1	< 1	< 1
Tetrachloroethene	127-18-4	35			y	y	< 1	< 1	< 1
Toluene	108-88-3	300			y	y	6.1	6.9	5.5
1,1,1-Trichloroethane	71-55-6	1000			y		< 2	< 2	< 2
Trichloroethene	79-01-6	600			y	y	< 1	< 1	< 1

Table E2. Building 225 – Pre-Occupancy #2 - VOC Concentrations in μg/m^3 (Sampled on 04-22-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 6-1 (north)	Site 6-1 (south)	OA
m & p-Xylenes	108-38-3/106-42-3	700			y		3.7	4.1	3.1
o-Xylene	95-47-6	700			y		1.5	1.8	1.1
Acetaldehyde	75-07-0	9		340	y	y	2.1	2.1	0.6
Formaldehyde	50-00-0	33			y	y	9.2	15.4	1.3
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists									
2-Butoxyethanol	111-76-2		20		y		1.7	3.3	0.3
Caprolactam	105-60-2		100		y		2.5	7.9	< 2
1,2-Dichlorobenzene	95-50-1						< 1	< 1	< 1
1,2,4-Trimethylbenzene	95-63-6			780	y	y	1.4	1.7	1.4
Trichlorofluoromethane	75-69-4						1.8	3.3	2.9
Trichlorotrifluoroethane	27154-33-2						0.6	0.6	0.6
Chemicals with Olfactory Thresholds									
Butyl acetate	123-86-4			930			4.7	5.6	4.9
Hexanal	66-25-1			58			7.7	7.4	1.3
Nonanal	124-19-6			13			5.0	6.6	1.8
Pentanal	110-64-3			22			1.8	2.0	0.8
4-Phenylcyclohexene	4994-16-5			2.5			< 1	< 1	< 1
Total Volatile Organic Compounds									
TVOC							86.6	167.3	68.6
Other Abundant Chemicals									
1-Butanol	71-36-3						1.6	3.1	0.6
2-Butanone	78-93-3						8.8	10.6	3.7
Butylated hydroxytoluene	128-37-0						< 1	< 1	< 1
Dimethyldisulfide	124-18-5						< 1	< 1	< 1

Table E2. Building 225 – Pre-Occupancy #2 - VOC Concentrations in μg/m^3 (Sampled on 04-22-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 6-1 (north)	Site 6-1 (south)	OA
n-Decane	624-92-0						1.0	1.8	0.6
n-Dodecane	112-40-3						0.3	0.5	0.3
2-Ethyl-1-hexanol	141-78-6						1.4	2.3	0.3
4-Ethyltoluene	104-76-7						0.5	0.6	0.3
Ethyl acetate	622-96-8						0.4	0.5	0.6
d-Limonene	5989-27-5						6.0	5.2	6.0
3-Methylpentane	108-10-1						< 4	< 4	< 4
4-Methyl-2-pentanone	96-14-0						0.2	7.3	0.3
n-Nonane	111-84-2						0.5	0.8	0.4
n-Octane	111-65-9						0.7	0.9	0.6
a-Pinene	80-56-8						< 1	< 1	< 1
Texanol 1 & 3	67-64-1						1.9	4.9	2.7
2-Propanone	25265-77-4						7.8	15.2	3.9
1,3,5-Trimethylbenzene	108-67-8						0.5	0.6	0.5
TXIB	6846-50-0						< 1	< 1	< 1
n-Undecane	1120-21-4						0.8	1.3	0.4

Table E3. Building 225 – Pre-Occupancy #3 - VOC Concentrations in $\mu g/m^3$ (Sampled on 06-25-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
Chemicals with Published CRELs													
Benzene	71-43-2	60			y	y	2.0	3.8	4.3	1.8	1.4	1.6	1.4
t-Butyl methyl ether	1634-04-4	8000			y		14.3	11.3	10.3	11.7	10.9	10.7	8.3
Carbon disulfide	75-15-0	800			y		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	56-23-5	40			y		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	108-90-7	1000			y		< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	300			y	y	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dibromomethane	106-93-4	0.8			y		< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	107-06-2	400			y		< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,1-Dichloroethene	106-46-7	800			y		< 5	< 5	< 5	4.1	3.8	3.6	1.7
1,4-Dichlorobenzene	57-35-4	70					< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	100-41-4	2000		13	y	y	7.7	8.2	0.9	1.3	1.1	2.2	0.6
Ethylene glycol	107-21-1	400			y		< 100	< 100	< 100	< 100	< 100	33.2	< 100
n-Hexane	110-54-3	7000			y		< 2	< 2	< 2	1.5	1.4	0.8	0.8
Methylene chloride	75-09-2	400			y	y	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Naphthalene	91-20-3	9		79	y	y	1.0	1.3	< 1	< 1	< 1	< 1	< 1
Phenol	108-95-2	200		430	y	y	4.6	2.5	4.3	2.3	2.2	4.1	0.6
2-Propanol	67-63-0	7000			y		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	100-42-5	900		630	y		0.5	1.3	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	127-18-4	35			y	y	4.6	3.8	2.6	2.6	2.2	2.2	1.9
Toluene	108-88-3	300			y	y	22.2	18.2	8.6	6.6	6.8	6.6	4.1
1,1,1-Trichloroethane	71-55-6	1000			y		< 2	< 2	1.7	< 2	< 2	< 2	< 2
Trichloroethene	79-01-6	600			y	y	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m & p-Xylenes	108-38-3/106-42-3	700			y		26.0	27.7	4.3	4.1	3.5	7.4	2.2

Table E3. Building 225 – Pre-Occupancy #3 - VOC Concentrations in $\mu g/m^3$ (Sampled on 06-25-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
o-Xylene	95-47-6	700			y		7.9	8.8	1.7	1.8	1.4	2.2	0.8
Acetaldehyde	75-07-0	9		340	y	y	9.1	7.2	8.0	6.5	6.4	5.6	4
Formaldehyde	50-00-0	33			y	y	25.0	11.0	27.0	21.0	20.0	17.0	6.0
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists													
2-Butanone	78-93-3				y		6.4	7.5	2.6	2.8	2.2	5.2	1.9
2-Butoxyethanol	111-76-2		20		y		4.1	6.9	< 2	1.3	0.8	0.5	< 2
Caprolactam	105-60-2		100		y		8.2	< 2	10.3	14.3	6.8	12.1	0.8
1,2-Dichlorobenzene	95-50-1						< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95-63-6			780	y	y	13.3	15.7	1.7	1.5	1.4	1.6	0.8
Trichlorofluoromethane	75-69-4						< 10	< 10	< 10	2.6	< 10	< 10	< 10
Trichlorotrifluoroethane	27154-33-2						< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chemicals with Olfactory Thresholds													
Butyl acetate	123-86-4			930			19.1	27.0	3.4	3.1	2.7	3.6	1.4
Hexanal	66-25-1			58			24.7	6.3	21.6	9.4	10.9	3.8	0.8
Nonanal	124-19-6			13			8.4	6.9	14.7	9.2	8.7	7.1	1.9
Pentanal	110-64-3			22			7.7	1.3	6.9	4.1	3.3	1.6	0.6
4-Phenylcyclohexene	4994-16-5			2.5			< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Volatile Organic Compounds													
TVOC							1027.8	1044.0	103.4	114.3	106.5	127.7	37.0
Other Abundant Chemicals													
1-Butanol	71-36-3						2.6	2.5	3.4	2.8	2.2	1.6	< 2
Butylated hydroxytoluene	128-37-0						< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Decane	124-18-5						16.1	20.8	1.7	2.0	1.9	1.9	1.4
Dimethyldisulfide	624-92-0						< 1	< 1	< 1	< 1	< 1	< 1	< 1

Table E3. Building 225 – Pre-Occupancy #3 - VOC Concentrations in $\mu g/m^3$ (Sampled on 06-25-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
n-Dodecane	112-40-3						13.8	13.2	< 2	1.3	1.6	1.4	0.6
Ethyl acetate	141-78-6						< 1	< 1	< 1	< 1	2.7	< 1	< 1
2-Ethyl-1-hexanol	104-76-7						2.0	1.9	1.7	2.3	1.4	1.4	0.3
4-Ethyltoluene	622-96-8						5.9	6.3	< 1	0.5	0.5	0.5	0.3
d-Limonene	5989-27-5						0.5	< 1	< 1	0.3	0.3	< 1	0.3
4-Methyl-2-pentanone	108-10-1						7.9	< 1	< 1	0.3	1.4	< 1	0.8
3-Methylpentane	96-14-0						< 4	< 4	< 4	< 4	< 4	< 4	< 4
n-Nonane	111-84-2						9.7	13.8	< 1	1.0	1.1	1.1	0.6
n-Octane	111-65-9						4.8	7.5	< 1	1.0	1.1	1.6	< 1
a-Pinene	80-56-8						3.3	< 1	2.6	2.3	1.1	0.8	0.3
2-Propanone	67-64-1						58.2	18.9	25.0	25.0	23.4	43.8	13.0
Texanol 1 & 3	25265-77-4						3.1	9.4	3.4	3.1	1.4	1.9	0.8
1,3,5-Trimethylbenzene	108-67-8						6.1	6.9	< 1	0.5	0.5	0.5	< 1
TXIB	6846-50-0						1.0	1.3	< 1	0.3	0.3	0.3	< 1
n-Undecane	1120-21-4						17.3	13.2	1.7	1.8	1.9	1.9	1.1

Table E4. Building 225 – Pre-Occupancy #4 - VOC Concentrations in μg/m³ (Sampled on 06-28-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m³)	Other Limits (ug/m³)	Olfactory Threshold (ug/m³)	ARB TAC	Prop. 65	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
Chemicals with Published CRELs													
Benzene	71-43-2	60			y	y	1.0	2.6	0.8	3.2	5.6	4.0	1.1
t-Butyl methyl ether	1634-04-4	8000			y		4.6	3.7	3.0	3.0	3.5	3.7	1.1
Carbon disulfide	75-15-0	800			y		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	56-23-5	40			y		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	108-90-7	1000			y		< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	300			y	y	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dibromomethane	106-93-4	0.8			y		< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	107-06-2	400			y		< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,4-Dichlorobenzene	106-46-7	800			y		< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	57-35-4	70					1.3	< 5	8.4	8.1	9.6	9.9	0.6
Ethylbenzene	100-41-4	2000		13	y	y	32.0	28.5	28.6	25.5	12.3	17.4	0.6
Ethylene glycol	107-21-1	400			y		< 100	51.3	85.4	46.5	52.9	53.7	< 100
n-Hexane	110-54-3	7000			y		0.5	1.0	1.1	1.1	1.1	1.1	< 2
Methylene chloride	75-09-2	400			y	y	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Naphthalene	91-20-3	9		79	y	y	0.3	0.5	0.3	0.3	0.5	0.3	< 1
Phenol	108-95-2	200		430	y	y	10.4	7.3	11.1	12.6	11.8	9.9	0.8
2-Propanol	67-63-0	7000			y		2.8	29.1	88.9	70.4	41.4	49.5	6.7
Styrene	100-42-5	900		630	y		1.3	2.1	1.1	0.8	0.8	1.1	< 1
Tetrachloroethene	127-18-4	35			y	y	16.2	8.6	15.1	12.9	5.3	6.7	< 1
Toluene	108-88-3	300			y	y	34.0	31.4	17.8	17.2	17.1	23.0	2.2
1,1,1-Trichloroethane	71-55-6	1000			y		< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table E4. Building 225 – Pre-Occupancy #4 - VOC Concentrations in μg/m³ (Sampled on 06-28-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m³)	Other Limits (ug/m³)	Olfactory Threshold (ug/m³)	ARB TAC	Prop. 65	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
Trichloroethene	79-01-6	600			y	y	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m & p-Xylenes	108-38-3/106-42-3	700			y		96.4	84.8	86.5	76.6	41.2	56.7	2.2
o-Xylene	95-47-6	700			y		29.2	24.9	22.7	20.7	11.5	16.0	0.6
Acetaldehyde	75-07-0	9		340	y	y	9.6	7.6	9.8	10.0	8.9	8.7	2.3
Formaldehyde	50-00-0	33			y	y	33.0	13.0	40.0	43.0	38.0	36.0	3.5
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists													
2-Butanone	78-93-3				y		27.2	19.4	26.5	24.7	39.3	31.3	1.4
2-Butoxyethanol	111-76-2		20		y		7.6	6.5	4.3	5.1	3.5	5.1	< 2
Caprolactam	105-60-2		100		y		11.4	< 2	14.9	17.2	15.0	15.5	0.8
1,2-Dichlorobenzene	95-50-1						< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-Methyl-2-pyrrolidinone	872-50-4					y	0.3	1.3	0.3	0.3	0.3	0.3	< 1
Trichlorofluoromethane	75-69-4						< 10	< 10	< 10	< 10	< 10	< 10	< 10
Trichlorotrifluoroethane	27154-33-2						< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2,4-Trimethylbenzene	95-63-6			780	y	y	24.6	27.0	10.8	10.5	9.4	11.0	0.6
Chemicals with Olfactory Thresholds													
Butyl acetate	123-86-4			930			16.2	11.5	13.2	12.4	9.9	11.5	< 2
Hexanal	66-25-1			58			33.0	9.7	27.6	37.6	31.0	31.3	1.1
Nonanal	124-19-6			13			7.1	7.3	7.6	10.5	10.4	9.4	1.9
Pentanal	110-64-3			22			8.4	2.6	8.9	11.0	9.6	11.2	< 2
4-Phenylcyclohexene	4994-16-5			2.5			< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Volatile Organic Compounds													
TVOC							946.2	926.4	611.9	609.1	501.1	567.9	23.5

Table E4. Building 225 – Pre-Occupancy #4 - VOC Concentrations in μg/m^3 (Sampled on 06-28-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
Other Abundant Chemicals													
1-Butanol	71-36-3						3.8	2.9	9.5	8.9	8.8	8.6	< 2
Butylated hydroxytoluene	128-37-0						< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Decane	124-18-5						19.8	20.7	10.8	9.9	9.1	10.7	0.8
Di(ethylene glycol)butyl ether (DEGBE)	112-34-5						0.5	1.0	0.5	1.3	1.1	1.3	< 2
Dimethyldisulfide	624-92-0						< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Dodecane	112-40-3						3.8	3.9	2.7	2.7	2.7	2.7	< 2
2-(2-Ethoxyethoxy)ethanol	111-90-0						< 20	162.6	< 20	< 20	< 20	< 20	< 20
Ethyl acetate	141-78-6						< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Ethyl-1-hexanol	104-76-7						3.6	< 1	4.9	5.1	4.0	5.3	0.3
4-Ethyltoluene	622-96-8						15.7	16.8	5.9	5.4	4.8	5.9	0.3
2-Heptanone	110-43-0						19.8	18.1	15.7	13.2	11.8	13.1	0.6
d-Limonene	5989-27-5						6.3	8.6	2.2	2.4	2.7	2.7	< 1
3-Methylpentane	108-10-1						< 4	< 4	< 4	< 4	< 4	< 4	< 4
4-Methyl-2-pentanone	96-14-0						15.7	9.2	7.8	8.1	5.3	6.7	< 1
n-Nonane	111-84-2						14.0	16.0	6.8	6.2	5.1	6.7	< 1
n-Octane	111-65-9						16.5	17.5	10.5	9.4	6.1	8.6	0.6
a-Pinene	80-56-8						4.3	1.0	4.3	4.6	3.7	3.2	< 1
2-Propanone	67-64-1						90.6	52.1	91.1	81.2	79.7	95.2	6.1
Propylene glycol methyl ether acetate (PGMEA)	108-65-6						9.9	7.6	4.1	3.8	2.7	4.3	< 5
Texanol 1 & 3	25265-77-4						8.1	16.2	8.4	7.5	9.1	8.6	0.8

Table E4. Building 225 – Pre-Occupancy #4 - VOC Concentrations in $\mu g/m^3$ (Sampled on 06-28-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
1,3,5-Trimethylbenzene	108-67-8						17.3	18.8	6.2	5.6	5.1	6.1	0.3
TXIB	6846-50-0						0.5	0.5	0.3	0.3	0.3	0.3	< 1
n-Undecane	1120-21-4						11.7	12.3	7.6	7.0	6.4	7.2	0.6

Table E5A. Building 225 – Post-Occupancy #1 - VOC Concentrations in $\mu g/m^3$ (Sampled on 10-29-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	site 1-1	site 1-2	site 3-1	site 4-1	site 5-1	site 6-2	oa
Chemicals with Published CRELs													
Benzene	71-43-2	60			y	y	3.2	2.4	2.1	2.3	2.6	2.6	2.7
t-Butyl methyl ether	1634-04-4	8000			y		20.7	15.0	12.5	13.3	11.8	13.0	6.6
Carbon disulfide	75-15-0	800			y		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	56-23-5	40			y		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	108-90-7	1000			y		< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	300			y	y	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dibromomethane	106-93-4	0.8			y		< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	107-06-2	400			y		< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,4-Dichlorobenzene	106-46-7	800			y		0.4	0.2	0.5	0.4	0.4	0.4	< 1
1,1-Dichloroethene	57-35-4	70					0.8	0.8	1.7	1.7	1.5	1.9	1.2
Ethylbenzene	100-41-4	2000		13	y	y	2.8	4.0	1.4	1.5	1.3	1.5	0.6
Ethylene glycol	107-21-1	400			y		< 100	< 100	23.8	< 100	< 100	< 100	< 100
n-Hexane	110-54-3	7000			y		2.4	1.6	1.9	1.9	1.8	1.7	1.0
Methylene chloride	75-09-2	400			y	y	1.0	1.0	< 5	1.1	0.9	< 5	1.2
Naphthalene	91-20-3	9		79	y	y	0.4	0.4	0.2	0.2	0.2	0.2	0.2
Phenol	108-95-2	200		430	y	y	3.6	2.4	3.3	2.5	2.2	2.6	1.0
2-Propanol	67-63-0	7000			y		15.7	7.7	19.1	15.4	49.5	14.5	2.3
Styrene	100-42-5	900		630	y		0.8	0.8	0.5	0.4	0.4	0.4	< 1
Tetrachloroethene	127-18-4	35			y	y	2.0	1.2	1.2	1.1	0.9	1.1	0.4
Toluene	108-88-3	300			y	y	11.3	8.7	8.3	8.5	8.1	8.7	5.0
1,1,1-Trichloroethane	71-55-6	1000			y		< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table E5A. Building 225 – Post-Occupancy #1 - VOC Concentrations in $\mu g/m^3$ (Sampled on 10-29-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	site 1-1	site 1-2	site 3-1	site 4-1	site 5-1	site 6-2	oa
Trichloroethene	79-01-6	600			y	y	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m & p-Xylenes	108-38-3/106-42-3	700			y		9.9	14.0	5.4	5.5	4.8	5.3	2.3
o-Xylene	95-47-6	700			y		4.0	5.3	2.1	2.3	2.0	2.1	0.8
Acetaldehyde	75-07-0	9		340	y	y	7.3	6.5	6.6	6.9	5.3	6.2	1.5
Formaldehyde	50-00-0	33			y	y	23.0	10.0	21.0	20.0	16.0	20.0	3.0
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists													
2-Butanone	78-93-3				y		1.2	1.2	1.2	1.3	1.1	1.1	1.0
2-Butoxyethanol	111-76-2		20		y		< 2	< 2	2.1	1.7	1.3	2.1	< 2
Caprolactam	105-60-2		100		y		1.6	< 2	4.2	3.8	3.9	4.1	< 2
1,2-Dichlorobenzene	95-50-1						< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-Methyl-2-pyrrolidinone	872-50-4					y	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	75-69-4						< 10	< 10	< 10	< 10	< 10	< 10	4.1
Trichlorotrifluoroethane	27154-33-2						< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2,4-Trimethylbenzene	95-63-6			780	y	y	9.5	28.5	2.6	2.7	2.6	2.8	0.8
Chemicals with Olfactory Thresholds													
Butyl acetate	123-86-4			930			2.6	1.8	2.8	3.0	3.1	3.8	0.6
Hexanal	66-25-1			58			11.3	0.8	3.8	10.4	9.4	11.5	1.0
Nonanal	124-19-6			13			5.8	2.2	3.1	3.4	4.2	4.5	5.8
Octanal	124-13-0			7			4.2	1.4	1.9	1.9	1.8	2.1	2.5
Pentanal	110-64-3			22			3.4	0.6	1.9	3.0	2.8	3.0	0.8
4-Phenylcyclohexene	4994-16-5			2.5			< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Volatile Organic Compounds													
TVOC							340.8	387.7	224.1	244.8	213.6	221.3	79.3

Table E5A. Building 225 – Post-Occupancy #1 - VOC Concentrations in $\mu g/m^3$ (Sampled on 10-29-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	site 1-1	site 1-2	site 3-1	site 4-1	site 5-1	site 6-2	oa
Other Abundant Chemicals													
1-Butanol	71-36-3						2.2	1.6	3.3	3.6	2.8	3.6	< 2
Butylated hydroxytoluene	128-37-0						< 1	< 1	< 1	< 1	< 1	0.0	< 1
C3 Alkylbenzene isomer							5.8	19.2	1.2	1.9	1.5	1.7	0.4
C4 Alkylbenzene							2.6	7.5	0.7	0.6	0.7	0.6	< 2
Decamethylcyclopentasiloxane	541-02-6						21.9	5.3	14.4	11.8	13.8	11.3	< 5
n-Decane	124-18-5						3.0	3.4	1.7	2.7	1.5	1.7	0.4
Di(ethylene glycol)butyl ether (DEGBE)	112-34-5						< 2	< 2	< 2	< 2	< 2	< 2	< 2
Dimethyldisulfide	624-92-0						< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Dodecane	112-40-3						2.6	1.2	< 2	< 2	< 2	< 2	< 2
2-(2-Ethoxyethoxy)ethanol	111-90-0						< 20	< 20	< 20	< 20	< 20	< 20	< 20
Ethyl acetate	141-78-6						1.2	0.6	1.2	1.3	0.9	1.3	0.2
2-Ethyl-1-hexanol	104-76-7						2.2	1.2	1.7	1.5	1.3	1.5	0.2
3-Ethyltoluene	620-14-4						10.9	34.4	2.1	2.3	2.2	2.3	0.6
4-Ethyltoluene	622-96-8						5.6	18.8	1.2	1.1	1.1	1.3	0.2
2-Heptanone	110-43-0						0.6	0.6	0.7	0.6	0.4	0.6	< 2
d-Limonene	5989-27-5						10.7	3.0	4.2	4.7	4.4	4.9	< 1
Methylcyclohexane	108-87-2						2.4	1.2	1.7	1.5	1.5	1.5	0.4
3-Methylpentane	108-10-1						< 4	< 4	< 4	< 4	< 4	< 4	< 4
4-Methyl-2-pentanone	96-14-0						2.2	1.4	3.1	3.2	3.3	3.6	0.2
n-Nonane	111-84-2						1.0	1.0	0.7	0.6	0.7	0.6	0.4
n-Octane	111-65-9						1.0	1.0	0.7	0.6	0.7	0.6	0.6
a-Pinene	80-56-8						3.4	1.0	2.6	2.7	2.2	2.3	0.2

Table E5A. Building 225 – Post-Occupancy #1 - VOC Concentrations in $\mu g/m^3$ (Sampled on 10-29-02 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	site 1-1	site 1-2	site 3-1	site 4-1	site 5-1	site 6-2	oa
2-Propanone	67-64-1						21.5	14.0	21.0	19.7	20.1	19.4	11.2
n-Propylbenzene	103-65-1						3.4	12.1	0.7	0.8	0.7	0.9	0.2
Propylene glycol methyl ether acetate (PGMEA)	108-65-6						< 5	< 5	< 5	< 5	< 5	< 5	< 5
Texanol 1 & 3	25265-77-4						1.8	2.2	1.9	1.5	1.3	2.1	< 2
1,2,3-Trimethylbenzene	526-73-8						5.4	17.6	1.4	1.5	1.5	1.7	< 1
1,3,5-Trimethylbenzene	108-67-8						6.0	19.8	1.2	1.3	1.1	1.3	0.2
TXIB	6846-50-0						0.4	0.2	0.2	0.2	0.2	0.2	< 1
n-Undecane	1120-21-4						3.2	2.8	1.4	1.5	1.3	1.7	0.4

Table E5B. Building 225 – Post-Occupancy #1 - VOC Concentrations in μg/m³ (Data Collected on 10-29-02)[148]

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
Chemicals with Published CRELs - Analyzed by GC/MS														
Benzene	71-43-2	q	60	y	y		+	3.2	4.2	< 1	2.6	4.3	4.4	< 1
Chloroform	67-66-3	q	300	y	y		+	< 2	< 2	< 3	< 3	< 3	< 3	< 3
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	2.4	5	1.4	2.6	2.1	3.1	1.2
Ethylene Glycol	107-21-1	q	400	y				< 10	14	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	4.4	< 1	< 2	< 2	5.1	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	2.8	2.6	< 1	2.9	3.7	3.4	< 1
2-Methoxyethanol	109-86-4	q	60	y	y		+	< 3	< 3	< 4	< 4	< 4	< 4	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	1.6	1.7	1.7	1.8	1.7	1.9	1.6
Phenol	108-95-2	q	200	y			430	2.3	2.1	1.5	4.8	2.1	3.9	< 0.9
Styrene	100-42-5	q	900	y			630	1.3	1.6	1.2	1.5	1.3	1.6	< 0.9
Tetrachloroethylene	127-18-4	q	35	y	y		+	2.3	0.98	2	2.6	2.3	2.7	1.7
Toluene	108-88-3	q	300	y	y		+	7.3	8.6	3.3	9.5	7.1	12	2.9
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 1	< 1	< 2	< 2	< 2	< 2	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9

148 **Aldehyde** pump stopped early

Table E5B. Building 225 – Post-Occupancy #1 - VOC Concentrations in $\mu g/m^3$ (Data Collected on 10-29-02)[148]

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	6.6	17	2.8	7.5	5.6	9.1	2.1
o-Xylene	95-47-6	q	700	y			+	2.8	6.2	1.6	3.1	2.5	3.7	1.3
Chemicals with Published CRELs - Analyzed by HPLC (Aldehyde-DNPH)														
Acetaldehyde	75-07-0	q	9	y	y		340	4.3	6.7	5.2	4.2	2.8	3.7	1.8
Formaldehyde	50-00-0	q	33	y	y		+	13	10	14	11	9.9	11	2.2
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by GC/MS														
2-Butoxyethanol	111-76-2	u		y		20	+	< 1	< 1	2.1	3.9	< 2	7.3	< 2
2-(2-Butoxyethoxy)-Ethanol	112-34-5	q		y				< 1	< 1	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		3.3	< 2	3.1	6.1	3.8	5.3	< 2
Cumene	98-82-8	u		y			120	< 0.9	11	< 1	< 0.9	< 0.9	< 0.9	< 0.9
Methyl Isobutyl Ketone	108-10-1	u		y			+	< 0.9	< 0.9	1.9	< 0.9	< 0.9	< 0.9	< 0.9
1-Methyl-2-Pyrrolidinone	872-50-4	q			y			< 0.9	< 0.9	< 1	< 0.9	< 0.9	< 0.9	< 0.9
1,2,4-Trimethylbenzene	95-63-6	u		y	y		780	16	100	4	12	11	14	< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists- - Analyzed by HPLC (Aldehyde-DNPH)														
Propionaldehyde	123-38-6	q		y			65	< 0.6	1.2	< 0.6	< 0.6	< 0.6	1.3	< 0.9
Chemicals with Olfactory Thresholds - Analyzed by GC/MS														
Benzaldehyde	100-52-7	u					190	4.1	< 2	< 2	5.9	4.7	6.6	2.6
Hexanal	66-25-1	u					58	8.7	< 2	4.4	10	7.8	10	< 2
Hexanoic acid	142-62-1	u					60	< 2	< 2	< 2	< 2	< 2	< 2	3.2
Indene	95-13-6	q					43	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table E5B. Building 225 – Post-Occupancy #1 - VOC Concentrations in μg/m³ (Data Collected on 10-29-02)[148]

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
3-Methyl Butanal	590-86-3	u					8.1	4.6	< 2	< 2	5.2	5.1	6.2	< 2
Nonanal	124-19-6	u					13	7.2	< 2	3.4	10	8	14	15
Octanal	124-13-0	u					7.2	< 2	< 2	2.4	6.2	4.7	7	< 2
Chemicals with Olfactory Thresholds - Analyzed by GC/MS - Analyzed by HPLC (Aldehyde-DNPH)														
Butyraldehyde	123-73-9	q					28	1.2	1.6	2.5	2.4	< 0.6	1.4	< 0.9
Total Volatile Organic Compounds (TVOC)														
Calculated from GC/MS-TIC														
TVOC as Chlorobenzene-d5	n/a							370	1000	130	440	320	510	80
TVOC as Toluene	n/a							120	320	40	140	100	170	23
Abundant Chemicals - Analyzed by GC/MS														
Benzoic Acid	65-85-0	u						< 2	< 2	< 2	< 2	< 2	< 2	6.1
Butylcyclohexane	1678-93-9	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cyclohexanone	108-94-1	q					+	< 2	< 2	< 2	< 2	< 2	2.4	< 2
Decamethylcyclopentasiloxane	541-02-6	u						23	< 2	12	21	20	22	< 2
n-Decane	124-18-5	q					+	2.6	4.7	< 2	3.1	2.4	3.7	< 2
1,3-Diisopropylbenzene	99-62-7	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 2	< 2	< 2	3	< 2	3.3	< 2
1-Ethyl-2-methylbenzene	611-14-3	u						6.9	54	< 2	< 2	< 2	< 2	< 2
1-Ethyl-3-methylbenzene	620-14-4	u						< 2	150	< 2	< 2	< 2	< 2	< 2

Table E5B. Building 225 – Post-Occupancy #1 - VOC Concentrations in μg/m³ (Data Collected on 10-29-02)[148]

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
1-Ethyl-4-methylbenzene	622-96-8	u						8.2	61	< 2	< 2	10	< 2	< 2
n-Heptane	142-82-5	q					+	8.8	8.8	2.6	13	8.7	16	1.7
Indane	496-11-7	u						< 2	12	< 2	< 2	< 2	< 2	< 2
D-Limonene	5989-27-5	u					+	23	13	9.4	15	17	20	< 2
Methylcyclohexane	108-87-2	q						4.8	< 2	< 2	3.6	5.2	6.4	< 2
n-Nonane	111-84-2	q					+	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Propylbenzene	103-65-1	u						< 2	42	< 2	< 2	< 2	< 2	< 2
1,2,3-Trimethylbenzene	526-73-8	u						8.3	58	< 2	5.5	5.8	6.4	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	12	43	2.5	7.2	8.2	2.9	< 2
n-Undecane	1120-21-4	q					+	2.8	3.8	< 2	3	2.5	3.5	< 2
Abundant Chemicals - Analyzed by HPLC (Aldehyde-DNPH)														
Acetone	67-64-1	q					+	11	14	8.4	6.3	7.2	6.5	12

Table E6A. Building 225 – Post-Occupancy #2 - VOC Concentrations in μg/m³ (Sampled on 06-05-03 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m³)	Other Limits (ug/m³)	Olfactory Threshold (ug/m³)	ARB TAC	Prop. 65	site 1-1	site 1-2	site 3-1	site 4-1	site 5-1	site 6-2	oa
Chemicals with Published CRELs													
Benzene	71-43-2	60			y	y	1.0	1.2	1.2	0.9	1.1	0.9	0.8
t-Butyl methyl ether	1634-04-4	8000			y		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon disulfide	75-15-0	800			y		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	56-23-5	40			y		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	108-90-7	1000			y		< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	300			y	y	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dibromomethane	106-93-4	0.8			y		< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	107-06-2	400			y		< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,4-Dichlorobenzene	106-46-7	800			y		0.4	< 1	0.4	0.2	0.2	0.2	< 1
1,1-Dichloroethene	57-35-4	70					< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	100-41-4	2000		13	y	y	1.4	2.0	0.6	0.4	0.4	0.4	0.3
Ethylene glycol	107-21-1	400			y		< 100	< 100	< 100	< 100	< 100	< 100	< 100
n-Hexane	110-54-3	7000			y		1.4	1.0	1.4	1.7	1.3	1.3	0.8
Methylene chloride	75-09-2	400			y	y	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Naphthalene	91-20-3	9		79	y	y	0.2	< 1	< 1	< 1	< 1	< 1	< 1
Phenol	108-95-2	200		430	y	y	7.4	3.5	4.4	3.9	3.9	3.9	0.8
2-Propanol	67-63-0	7000			y		3.2	< 5	1.0	1.5	1.1	2.8	< 5
Styrene	100-42-5	900		630	y		0.6	0.4	0.2	0.2	0.2	0.2	< 1
Tetrachloroethene	127-18-4	35			y	y	0.4	0.2	0.4	0.2	0.2	0.2	< 1
Toluene	108-88-3	300			y	y	9.1	3.5	3.6	3.5	3.1	3.0	1.6
1,1,1-Trichloroethane	71-55-6	1000			y		< 2	< 2	< 2	< 2	< 2	< 2	< 2
Trichloroethene	79-01-6	600			y	y	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m & p-Xylenes	108-38-3/106-42-3	700			y		3.8	5.9	1.4	1.3	1.3	1.3	0.8

Table E6A. Building 225 – Post-Occupancy #2 - VOC Concentrations in μg/m³ (Sampled on 06-05-03 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m³)	Other Limits (ug/m³)	Olfactory Threshold (ug/m³)	ARB TAC	Prop. 65	site 1-1	site 1-2	site 3-1	site 4-1	site 5-1	site 6-2	oa
o-Xylene	95-47-6	700			y		1.8	2.6	0.8	0.6	0.7	0.7	0.3
Acetaldehyde	75-07-0	9		340	y	y	8.0	5.9	7.5	6.7	8.3	9.1	2.3
Formaldehyde	50-00-0	33			y	y	24.0	11.0	24.0	21.0	21.0	23.0	3.5
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists													
2-Butanone	78-93-3				y		1.6	1.4	1.0	1.3	1.3	1.3	1.1
2-Butoxyethanol	111-76-2		20		y		12.9	2.9	2.8	1.9	4.1	9.8	< 2
Caprolactam	105-60-2		100		y		4.2	1.0	5.2	2.4	4.8	4.1	< 2
1,2-Dichlorobenzene	95-50-1						< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-Methyl-2-pyrrolidinone	872-50-4					y	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	75-69-4						< 10	< 10	< 10	< 10	< 10	< 10	< 10
Trichlorotrifluoroethane	27154-33-2						< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2,4-Trimethylbenzene	95-63-6			780	y	y	6.0	13.6	1.0	0.9	0.9	0.9	0.3
Chemicals with Olfactory Thresholds													
Butyl acetate	123-86-4			930			11.3	2.4	4.0	4.3	3.5	4.8	< 2
Hexanal	66-25-1			58			8.2	4.5	3.0	7.3	7.6	8.0	0.8
Nonanal	124-19-6			13			7.6	5.1	6.3	5.2	7.0	6.1	3.2
Octanal	124-13-0			7			3.6	2.9	3.0	3.0	3.3	3.0	1.3
Pentanal	110-64-3			22			2.6	1.4	2.6	2.4	2.4	2.8	< 2
4-Phenylcyclohexene	4994-16-5			2.5			< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Volatile Organic Compounds													
TVOC							298.2	224.0	149.8	137.4	139.7	169.8	48.7
Other Abundant Chemicals													
1-Butanol	71-36-3						3.0	2.2	3.8	3.7	3.9	3.9	< 2
Butylated hydroxytoluene	128-37-0						< 1	< 1	< 1	< 1	< 1	< 1	< 1
C3 Alkylbenzene isomer							4.2	9.2	0.6	0.4	0.4	0.4	< 2

Table E6A. Building 225 – Post-Occupancy #2 - VOC Concentrations in μg/m³ (Sampled on 06-05-03 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m³)	Other Limits (ug/m³)	Olfactory Threshold (ug/m³)	ARB TAC	Prop. 65	site 1-1	site 1-2	site 3-1	site 4-1	site 5-1	site 6-2	oa
C4 Alkylbenzene							1.4	3.5	< 2	< 2	< 2	< 2	< 2
Decamethylcyclopentasiloxane	541-02-6						49.3	10.0	18.1	23.3	24.2	15.0	< 5
n-Decane	124-18-5						1.8	1.6	1.0	0.9	0.9	0.9	0.3
Di(ethylene glycol)butyl ether (DEGBE)	112-34-5						< 2	< 2	< 2	< 2	< 2	< 2	< 2
Dimethyldisulfide	624-92-0						< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Dodecane	112-40-3						3.0	1.0	1.0	0.9	1.1	1.1	< 2
2-(2-Ethoxyethoxy)ethanol	111-90-0						< 20	< 20	< 20	< 20	< 20	< 20	< 20
Ethyl acetate	141-78-6						5.0	1.4	1.8	1.5	1.7	1.7	< 1
2-Ethyl-1-hexanol	104-76-7						2.4	1.0	2.2	1.9	2.0	2.2	< 1
3-Ethyltoluene	620-14-4						8.5	20.0	1.0	0.9	0.9	0.9	< 1
4-Ethyltoluene	622-96-8						3.2	7.9	0.4	0.2	0.4	0.2	< 1
2-Heptanone	110-43-0						1.4	1.0	1.4	1.1	0.9	1.1	< 2
d-Limonene	5989-27-5						14.1	4.9	8.1	5.2	6.3	11.3	< 1
Methylcyclohexane	108-87-2						2.6	0.4	1.8	0.9	0.9	1.5	< 2
3-Methylpentane	108-10-1						< 4	< 4	< 4	< 4	< 4	< 4	< 4
4-Methyl-2-pentanone	96-14-0						4.8	2.2	4.0	3.7	3.5	6.1	0.3
n-Nonane	111-84-2						0.6	0.4	0.4	0.2	0.4	0.2	< 1
n-Octane	111-65-9						1.0	0.6	0.4	0.2	0.2	0.2	< 1
a-Pinene	80-56-8						1.0	0.4	0.8	0.6	0.7	0.7	< 1
2-Propanone	67-64-1						< 5	< 5	< 5	< 5	< 5	1.1	< 5
n-Propylbenzene	103-65-1						2.4	5.9	0.4	0.2	0.2	0.2	< 1
Propylene glycol methyl ether acetate (PGMEA)	108-65-6						< 5	< 5	< 5	< 5	< 5	< 5	< 5
Texanol 1 & 3	25265-77-4						4.2	3.5	3.8	2.4	3.3	4.1	< 2
1,2,3-Trimethylbenzene	526-73-8						3.4	8.3	0.4	0.4	0.4	0.4	< 1

Table E6A. Building 225 – Post-Occupancy #2 - VOC Concentrations in μg/m^3 (Sampled on 06-05-03 by Indoor Environmental Engineering)

Compound	CAS Number	CREL (ug/m^3)	Other Limits (ug/m^3)	Olfactory Threshold (ug/m^3)	ARB TAC	Prop. 65	site 1-1	site 1-2	site 3-1	site 4-1	site 5-1	site 6-2	oa
1,3,5-Trimethylbenzene	108-67-8						4.4	10.4	0.4	0.4	0.4	0.4	< 1
TXIB	6846-50-0						0.8	0.4	0.4	0.2	0.2	0.2	< 1
n-Undecane	1120-21-4						3.0	1.8	1.2	1.1	1.1	1.3	0.3

Table E6B. Building 225 – Post-Occupancy #2 - VOC Concentrations in μg/m^3 (Data Collected on 06-05-03)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
Chemicals with Published CRELs - Analyzed by GC/MS														
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 3	< 3	< 3	< 3	< 3
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	100-41-4	q	2000	y	y		13	1.3	1.1	< 1	< 1	< 1	< 1	< 1
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 4	< 4	< 4	< 4	< 4	< 4
Methylene Chloride	75-09-2	q	400	y	y		+	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	1.8	< 1	< 1	< 1	< 1	< 1	< 1
Phenol	108-95-2	q	200	y			430	4	1.9	1.9	2.4	2.2	1.8	1.7
Styrene	100-42-5	q	900	y			630	1.3	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	108-88-3	q	300	y	y		+	3.5	1.2	1.1	1.4	1.3	1.1	1.1
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Table E6B. Building 225 – Post-Occupancy #2 - VOC Concentrations in $\mu g/m^3$ (Data Collected on 06-05-03)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	2.2	1.6	1	1.2	1.2	1	1.1
o-Xylene	95-47-6	q	700	y			+	1.5	1.2	1	1.1	1.1	1	1
Chemicals with Published CRELs - Analyzed by HPLC (Aldehyde-DNPH)														
Acetaldehyde	75-07-0	q	9	y	y		340	10	3.6	4.4	6.4	5.8	3.8	1.8
Formaldehyde	50-00-0	q	33	y	y		+	40	14	23	21	21	13	3.3
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by GC/MS														
Acetophenone	98-86-2	u		y			+	< 1	< 1	< 1	< 1	< 1	< 1	1.4
2-Butoxyethanol	111-76-2	u		y		20	+	13	< 2	< 2	2.7	2.2	2.5	< 2
2-(2-Butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		3.5	< 2	2.6	3.2	3	2.6	< 2
Methyl Isobutyl Ketone	108-10-1	q		y			+	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-Methyl-2-Pyrrolidinone	872-50-4	q			y			< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95-63-6	u		y	y		780	7.5	8.6	< 1	1.8	1.7	< 1	< 1
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by HPLC (Aldehyde-DNPH)														
Propionaldehyde	123-38-6	q		y			65	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chemicals with Olfactory Thresholds - Analyzed by GC/MS														
Benzaldehyde	100-52-7	u					190	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Decanal	112-31-2	u					5.9	5.9	< 3	< 3	2.6	< 3	< 3	< 3
Heptanal	111-71-7	u					23	< 3	< 3	< 3	< 3	< 3	< 3	< 3

Table E6B. Building 225 – Post-Occupancy #2 - VOC Concentrations in μg/m³ (Data Collected on 06-05-03)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
Hexanal	66-25-1	u					58	3.7	< 3	< 3	< 3	< 3	< 3	< 3
Hexanoic acid	142-62-1	u					60	< 3	< 3	< 3	< 3	2.9	< 3	< 3
Indene	95-13-6	q					43	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Nonanal	124-19-6	u					13	14	5.9	5	7.4	5.4	4.7	4.5
Octanal	124-13-0	u					7.2	3.9	< 3	< 3	< 3	< 3	< 3	< 3
Chemicals with Olfactory Thresholds - Analyzed by HPLC (Aldehyde-DNPH)														
Butyraldehyde	123-73-9	q					28	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Volatile Organic Compounds (TVOC)														
Calculated from GC/MS-TIC														
TVOC as Chlorobenzene-d5	n/a							330	100	55	110	87	50	34
TVOC as Toluene	n/a							77	22	12	23	19	11	7.4
Abundant Chemicals - Analyzed by GC/MS														
Benzoic Acid	65-85-0	u						< 3	< 3	< 3	< 3	< 3	< 3	8.3
Butylcyclohexane	1678-93-9	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3
Cyclohexanone	108-94-1	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Decamethylcyclopentasiloxane	541-02-6	u						26	2.9	5	13	11	3.7	< 3
n-Decane	124-18-5	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1,3-Diisopropylbenzene	99-62-7	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3

Table E6B. Building 225 – Post-Occupancy #2 - VOC Concentrations in $\mu g/m^3$ (Data Collected on 06-05-03)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 3-1	Site 4-1	Site 5-1	Site 6-2	OA
2-Ethyl-1-Hexanol	104-76-7	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1-Ethyl-2-methylbenzene	611-14-3	u						5.8	5.5	< 3	< 3	< 3	< 3	< 3
1-Ethyl-4-methylbenzene	622-96-8	u						6.3	5.7	< 3	< 3	< 3	< 3	< 3
n-Heptane	142-82-5	q					+	< 1	< 1	< 1	< 1	< 1	< 1	< 1
D-Limonene	5989-27-5	u					+	18	< 3	2.9	3.4	3.3	3.8	< 3
Methylcyclohexane	108-87-2	q						< 3	< 3	< 3	< 3	< 3	< 3	< 3
n-Nonane	111-84-2	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Propylbenzene	103-65-1	u						< 3	4.4	< 3	< 3	< 3	< 3	< 3
Texanol 1 & 3	25265-77-4	u						< 3	< 3	< 3	2.9	2.7	< 3	< 3
1,2,3-Trimethylbenzene	526-73-8	u						11	5.7	< 3	< 3	< 3	< 3	< 3
1,3,5-Trimethylbenzene	108-67-8	q					+	2.9	2.7	< 3	< 3	< 3	< 3	< 3
n-Undecane	1120-21-4	q					+	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Abundant Chemicals - Analyzed by HPLC (Aldehyde-DNPH)														
Acetone	67-64-1	q					+	95	25	57	20	14	11	10

Table E7. Building 225 – Post-Occupancy #3 - VOC Concentrations in μg/m³ (Data Collected on 10-23-03)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 3	AHU 4	OA
Chemicals with Published CRELs - Analyzed by GC/MS																					
Benzene	71-43-2	q	60	y	y		+	< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1
Chloroform	67-66-3	q	300	y	y		+	< 3	< 3	< 4	< 3	< 3	< 3	< 3	< 3	< 5	< 3	< 3	< 3	< 3	< 3
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 0.9	< 1	< 0.9	< 1	< 1
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 4	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 0.9	< 1	< 0.9	< 1	< 1
Ethylbenzene	100-41-4	q	2000	y	y		13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 0.9	< 1	< 0.9	< 1	< 1
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10	< 20	< 10	< 10	< 10	< 20	< 10	< 30	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
n-Hexane	110-54-3	q	7000	y			+	< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1	3.7	< 1	< 1	< 1	< 1	< 1
2-methoxyethanol	109-86-4	q	60	y	y		+	< 4	< 4	< 5	< 4	< 4	< 4	< 4	< 4	< 7	< 4	< 4	< 4	< 4	< 4
Methylene Chloride	75-09-6	q	400	y	y		+	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 4	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 0.9	< 1	< 0.9	< 1	< 1
Phenol	108-95-2	q	200	y			430	3.5	3.6	6.7	4	5.5	4.9	4.7	< 1	10	4.8	4.5	4.7	4.5	3
Styrene	100-42-5	q	900	y			630	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 0.9	< 1	< 0.9	< 1	< 1
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 0.9	< 1	< 0.9	< 1	< 1
Toluene	108-88-3	q	300	y	y		+	< 1	2.2	3.3	1	3.1	2.5	1.8	< 1	6.9	3.1	2.5	2.4	3.8	< 1
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 0.9	< 1	< 0.9	< 1	< 1

Table E7. Building 225 – Post-Occupancy #3 - VOC Concentrations in $\mu g/m^3$ (Data Collected on 10-23-03)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 3	AHU 4	OA
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	< 1	3.6	1.9	< 1	1.7	1.2	1.2	< 1	4.1	2	1.7	1.4	2.9	< 1
o-Xylene	95-47-6	q	700	y			+	< 1	1.2	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 0.9	< 1	< 0.9	< 1	< 1
Chemicals with Published CRELs - Analyzed by HPLC (Aldehyde-DNPH)																					
Acetaldehyde	75-07-0	q	9	y	y		340	5.3	5.6	5.2	6.2	4.5	7.6	7	11	8.6	6.4	5.6	6.1	6.9	2
Formaldehyde	50-00-0	q	33	y	y		+	15	17	18	30	17	31	30	39	32	24	21	24	15	4.5
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by GC/MS																					
2-Butoxyethanol	111-76-2	q		y		20	+	< 2	< 2	2.7	2	3.3	2.7	1.9	< 2	5.3	2.3	2.1	8.8	3.5	< 2
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2
Caprolactam	105-60-2	q		y		100		< 2	< 2	7.1	< 2	5.2	4.2	2.7	< 2	9.6	2.4	< 2	2.7	< 2	< 2
Cumene	98-82-8	q		y			120	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 0.9	< 1	< 0.9	< 1	< 1
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 0.9	< 1	< 0.9	< 1	< 1
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	< 1	9	< 1	< 1	1	< 1	< 1	< 1	2.6	1.3	1.4	< 0.9	2.9	< 1
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by HPLC (Aldehyde-DNPH)																					
Propionaldehyde	123-38-6	q		y			65	1.8	1.7	< 2	1.8	< 1	1.3	2.1	3	< 2	1.9	< 1	1.4	1.5	< 1
Chemicals with Olfactory Thresholds																					
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by GC/MS																					
Benzaldehyde	100-52-7	q					190	< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
Decanal	112-31-2	q					5.9	< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2

Table E7. Building 225 – Post-Occupancy #3 - VOC Concentrations in $\mu g/m^3$ (Data Collected on 10-23-03)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 3	AHU 4	OA
Hexanal	66-25-1	q					58	< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
Nonanal	124-19-6	q					13	< 2	< 2	3.4	2.8	3.1	2.5	4.1	< 3	6.1	< 2	< 2	2.4	< 2	6.3
Octanal	124-13-0	u					7.2	< 2	< 2	3.9	< 3	< 3	< 2	< 3	< 3	5.1	2.4	< 2	2.4	2.5	< 2
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by HPLC (Aldehyde-DNPH)																					
Butyraldehyde	123-73-9	q					28	< 1	< 1	< 2	1.9	< 1	3.2	2.2	4.6	< 2	33	2.3	1.6	1.9	< 1
Total Volatile Organic Compounds (TVOC)																					
Calculated from GC/MS-TIC																					
TVOC as Chlorobenzene-d5	n/a							59	230	230	95	210	160	150	4.9	500	180	160	170	230	47
TVOC as Toluene	n/a							36	150	150	58	130	100	90	2.9	320	120	100	110	150	28
Abundant Chemicals - Analyzed by GC/MS																					
Benzoic Acid	65-85-0	u																			3
Butylcyclohexane	1678-93-9	q						< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
Cyclohexanone	108-94-1	q					+	< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
Decamethylcyclopentasiloxane	541-02-*6	u						8.4	3.3	23	6.6	25	18	8.7		60	20	11	14	14	< 2
n-Decane	124-18-5	q					+	< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-hexanoic Acid	149-57-5	q						< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
n-Heptane	142-82-5	q					+	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	5	< 1	< 1	< 1	< 1	< 1
d-Limonene	5989-27-5	u					+	3.3	13	9.4	2.9	7.1	5.4	6.1		21	10	9	6.9	39	< 2

Table E7. Building 225 – Post-Occupancy #3 - VOC Concentrations in $\mu g/m^3$ (Data Collected on 10-23-03)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 3	AHU 4	OA
Methylcyclohexane	108-87-2	q						< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
n-Nonane	111-84-2	q					+	< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
alpha-pinene	80-56-8	q					+	< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
Texanol 1 & 3	25265-77-4	q						< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	5.3	2.9	< 2	2.6	< 2	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 2	6.6	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	< 2	< 2	< 3	< 3	< 3	< 2	< 3	< 3	< 5	< 2	< 2	< 2	< 2	< 2
Abundant Chemicals - Analyzed by HPLC (Aldehyde-DNPH)																					
Acetone	67-64-1	q					+	5.1	5.3	7.6	8.2	5.2	28	15	14	9.9	9.7	6.1	7.1	5.8	3.4

Table E8. Building 225 – Post-Occupancy #4 - VOC Concentrations in μg/m^3 (Data Collected on 03-10-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
Chemicals with Published CRELs - Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	< 2	< 0.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1
Chloroform	67-66-3	q	300	y	y		+	< 4	< 2	< 2	< 2	< 3	< 3	< 2	< 2	< 2	< 3	< 3	< 3	< 3	< 2	< 2
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 1	< 0.8	< 0.9	< 0.9	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 0.8	< 0.9
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 1	< 0.8	< 0.9	< 0.9	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 0.8	< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	1.6	< 0.8	< 0.9	< 0.9	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 0.8	< 0.9
Ethylene Glycol	107-21-1	q	400	y				< 20	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isopropanol	67-63-0	q	7000	y			+	11	< 1	< 1	< 1	< 2	< 2	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 1	< 1
n-Hexane	110-54-3	q	7000	y			+	< 2	< 0.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1
2-Methoxyethanol	109-86-4	q	60	y	y		+	< 5	< 3	< 3	< 3	< 4	< 4	< 3	< 3	< 3	< 4	< 4	< 4	< 4	< 3	< 3
Methylene Chloride	75-09-2	q	400	y	y		+	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Naphthalene	91-20-3	q	9	y	y		79	< 1	< 0.8	< 0.9	< 0.9	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 0.8	< 0.9
Phenol	108-95-2	q	200	y			430	8.1	2	3	2.7	2.3	3.1	2.1	4.2	2.8	3.4	3.5	3.2	3	2.1	1.7
Styrene	100-42-5	q	900	y			630	< 1	< 0.8	< 0.9	< 0.9	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 0.8	< 0.9
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 1	< 0.8	< 0.9	< 0.9	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 0.8	< 0.9
Toluene	108-88-3	q	300	y	y		+	11	1.4	2.4	2	< 1	2.1	< 0.9	3.5	1.7	3.1	3.3	2	2	1.9	< 0.9
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 2	< 1	< 1	< 1	< 2	< 2	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 1	< 1

Table E8. Building 225 – Post-Occupancy #4 - VOC Concentrations in μg/m^3 (Data Collected on 03-10-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
Trichloroethylene	79-01-6	q	600	y	y		+	< 1	< 0.8	< 0.9	< 0.9	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 0.8	< 0.9
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	7.4	1.2	1.2	1	< 1	1.1	< 0.9	2.4	< 0.9	1.6	1.7	1	1.1	1.6	< 0.9
o-Xylene	95-47-6	q	700	y			+	2.5	< 0.8	< 0.9	< 0.9	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 0.8	< 0.9
Chemicals with Published CRELs - Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	18	4.1	7.6	6.9	4.7	8.2	4.3	9	5.6	7.8	2.9	6.7	6.2	6	1.3
Formaldehyde	50-00-0	q	33	y	y		+	60	8.1	24	20	18	26	17	30	17	23	7.9	20	19	11	2.6
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by GC/MS																						
2-Butoxyethanol	111-76-2	q		y		20	+	7.8	< 1	1.5	1.6	< 2	2.9	< 1	4.1	< 1	2.2	2.3	< 2	< 2	< 1	< 1
2-(2-Butoxyethoxy)-ethanol	112-34-5	q		y				< 2	< 1	< 1	< 1	< 2	< 2	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 1	< 1
Caprolactam	105-60-2	q		y		100		5.8	< 2	3.2	2.5	2.4	2.8	< 2	4.1	2	< 2	2.1	< 2	< 2	< 2	< 2
Cumene	98-82-8	q		y			120	< 1	< 0.8	< 0.9	< 0.9	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 0.8	< 0.9
Methyl Isobutyl Ketone	108-10-1	u		y			+	< 1	< 0.8	< 0.9	2.1	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	1.2	1.3	1.5	< 0.8	< 0.9
1-Methyl-2-Pyrrolidinone	872-50-4	q			y			< 1	< 0.8	< 0.9	< 0.9	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 1	< 1	< 0.8	< 0.9
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	5	1.5	< 0.9	< 0.9	< 1	< 1	< 0.9	0.98	< 0.9	< 0.9	< 0.9	< 1	< 1	2	< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by HPLC (Aldehyde-DNPH)																						
Propionaldehyde	123-38-6	q		y			65	4.3	< 1	2.2	< 1	< 1	< 1	< 1	2.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chemicals with Olfactory Thresholds - Analyzed by GC/MS																						

Table E8. Building 225 – Post-Occupancy #4 - VOC Concentrations in μg/m^3 (Data Collected on 03-10-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
Benzaldehyde	100-52-7	q					190	< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decanal	112-31-2	q					5.9	< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Heptanal	111-71-7	q					23	< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Hexanal	66-25-1	q					58	< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Hexanoic Acid	142-62-1	u					60	< 3	< 2	< 2	3.8	< 3	4.1	< 2	< 2	3.3	2.7	2.5	3.6	3.4	< 2	< 2
Nonanal	124-19-6	q					13	5.2	< 2	2.4	2.1	< 3	3.2	< 2	4	< 2	< 2	2.9	< 2	3.6	< 2	7.5
Octanal	124-13-0	u					7.2	< 3	< 2	2.4	< 2	< 3	< 2	< 2	3.4	< 2	3.2	3.1	< 2	2.4	< 2	< 2
Octanoic Acid	-648486	u					23															7.9
Chemicals with Olfactory Thresholds - Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	4.9	< 1	2	2.6	< 1	< 1	< 1	2.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Volatile Organic Compounds (TVOC)																						
Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a	u						1100	150	190	160	82	180	93	320	140	220	210	170	160	160	58
TVOC as Toluene	n/a	u						880	100	140	120	56	130	66	250	99	170	160	120	110	110	40
Abundant Chemicals - Analyzed by GC/MS																						
alkyl aromatic HC (20.3 min)		u						14	4.1	< 2	< 2	< 3	< 2	< 2	2.7	< 2	< 2	2.4	< 2	< 2	< 2	< 2
alkyl aromatic HC (22.7 min)		u						< 3	< 2	< 2	< 2	< 3	< 2	< 2	2.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table E8. Building 225 – Post-Occupancy #4 - VOC Concentrations in μg/m^3 (Data Collected on 03-10-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
Benzoic Acid	65-85-0	u						< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	11
Butylcyclohexane	1678-93-9	q						< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-10 branched HC (19.0 min)		u						13	3.8	< 2	< 2	< 3	< 2	< 2	< 2	< 2	2.4	< 2	< 2	< 2	3.8	< 2
C-11 branched HC (20.5 min)		u						40	5.6	2.2	< 2	< 3	< 2	< 2	3.3	< 2	2.8	2.8	< 2	< 2	5.6	< 2
C-11 branched alkane HC (20.7 min)		u						19	2.6	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	8.9	< 2	2.8	< 2
C-11 branched HC (20.9 min)		u						55	10	3.3	2.9	< 3	3.1	< 2	4.9	2.3	4.3	4.2	3.5	< 2	10	< 2
C-11 branched HC (21.3 min)		u						14	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-11 branched HC (21.4 min)		u						43	6.7	2.6	2.2	< 3	< 2	< 2	3.9	< 2	3.4	3.3	2.6	< 2	6.8	< 2
C-11 branched HC (21.5 min)		u						45	5.9	2.5	< 2	< 3	< 2	< 2	3.9	< 2	3.2	3.2	< 2	< 2	5.9	< 2
C-12 branched alkane HC (22.05 min.)		u						8.8	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-12 Unstaturated HC (22.3 min)		u						12	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
C-14 branched alkane HC (27.3 min)		u						< 3	< 2	< 2	2.8	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cyclohexanone	108-94-1	q					+	< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Decamethylcyclopenta	541-02-6	u						90	9.1	28	23	8.9	33	12	62	17	34	31	21	21	10	< 2

Table E8. Building 225 – Post-Occupancy #4 - VOC Concentrations in μg/m^3 (Data Collected on 03-10-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
siloxane																						
n-Decane	124-18-5	q					+	12	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Dodecane	112-40-3	u					+	59	< 2	< 2	< 2	< 3	< 2	< 2	3.3	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Ethyl-3-ethoxypropionate	763-69-9	u																				2.9
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1-Ethyl-2-methylbenzene	611-14-3	u						3.7	2.9	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3.4	< 2
n-Heptane	142-82-5	q					+	3.4	< 1	2.5	< 1	< 1	< 1	< 1	1.4	< 1	1.6	1.8	< 1	< 1	< 1	< 1
Hexadecane	544-76-3	u						< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	2.5	< 2	< 2	< 2	< 2
d-Limonene	5989-27-5	q					+	72	2.6	10	7	4.2	8	4.6	20	4.9	15	12	9	7.9	2.7	< 2
Methylcyclohexane	108-87-2	q						< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Nonane	111-84-2	q					+	< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
alpha-Pinene	80-56-8	q					+	< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
beta-Pinene	127-91-3	q						< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Propylbenzene	103-65-1	u						< 3	2.4	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.6	< 2
Propylene Glycol	57-55-6	u						< 3	< 2	< 2	< 2	< 3	< 2	< 2	3	< 2	2.5	< 2	< 2	< 2	< 2	< 2
Tetradecane	629-59-4	u						< 3	< 2	< 2	< 2	< 3	< 2	< 2	2.6	< 2	< 2	< 2	< 2	< 2	< 2	< 2

Table E8. Building 225 – Post-Occupancy #4 - VOC Concentrations in μg/m^3 (Data Collected on 03-10-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
Texanol 1 & 3	25265-77-4	q						3.7	< 2	< 2	< 2	< 3	< 2	< 2	2.4	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Tridecane	629-50-5	u						9.7	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
n-Undecane	1120-21-4	q					+	39	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Unidentified (rt: 26.95 min)		u						4.2	< 2	< 2	< 2	< 3	< 2	< 2	2.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Abundant Chemicals - Analyzed by HPLC (Aldehyde-DNPH)																						
Acetone	67-64-1	q					+	40	6.8	14	14	11	17	9.7	18	11	15	4.3	13	13	9.7	4.6

Table E9. Building 225 – Post-Occupancy #5 - VOC Concentrations in $\mu g/m^3$ (Data Collected on 05-19-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
Chemicals with Published CRELs - Analyzed by GC/MS																						
Benzene	71-43-2	q	60	y	y		+	< 0.9	< 0.9		< 1						< 0.6	< 0.9		< 0.6		< 1
Chloroform	67-66-3	q	300	y	y		+	< 2	< 2		< 2						< 1	< 2		< 1		< 2
1,4-Dioxane	123-91-1	q	3000	y	y		+	< 0.8	< 0.8		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
2-Ethoxyethanol	110-80-5	q	70	y	y		+	< 2	< 2		< 2						< 1	< 2		< 1		< 2
2-Ethoxyethyl acetate	111-15-9	q	300	y	y		+	< 0.8	< 0.8		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
Ethylbenzene	100-41-4	q	2000	y	y		13	< 0.8	< 0.8		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
Ethylene Glycol	107-21-1	q	400	y				< 10	< 10		< 10						< 7	< 10		< 7		< 10
Isopropanol	67-63-0	q	7000	y			+	< 1	< 1		< 1						< 0.8	< 1		< 0.8		< 1
n-Hexane	110-54-3	q	7000	y			+	< 0.9	< 0.9		< 1						< 0.6	< 0.9		< 0.6		< 1
2-methoxyethanol	109-86-4	q	60	y	y		+	< 3	< 3		< 3						< 2	< 3		< 2		< 3
Methylene Chloride	75-09-6	q	400	y	y		+	< 2	< 2		< 2						< 1	< 2		< 1		< 2
Naphthalene	91-20-3	q	9	y	y		79	< 0.8	< 0.8		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
Phenol	108-95-2	q	200	y			430	2.3	< 0.8		2.1						1.1	2		1.1		1.3
Styrene	100-42-5	q	900	y			630	< 0.8	< 0.8		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
Tetrachloroethylene	127-18-4	q	35	y	y		+	< 0.8	< 0.8		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
Toluene	108-88-3	q	300	y	y		+	3.4	1.9		2.1						1.1	2.3		1.2		< 0.9
1,1,1-Trichloroethane	71-55-6	q	1000	y			+	< 1	< 1		< 1						< 0.8	< 1		< 0.8		< 1
Trichloroethylene	79-01-6	q	600	y	y		+	< 0.8	< 0.8		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9

Table E9. Building 225 – Post-Occupancy #5 - VOC Concentrations in μg/m^3 (Data Collected on 05-19-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
m/p-Xylene	108-38-3/106-42-3	q	700	y			+	3.4	3.4		2.2						1.2	2.3		1.3		2.2
o-Xylene	95-47-6	q	700	y			+	0.97	0.99		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
Chemicals with Published CRELs - Analyzed by HPLC (Aldehyde-DNPH)																						
Acetaldehyde	75-07-0	q	9	y	y		340	11	7.4	7.5	8.4	9.8	9.3	9.5	9	9.8	4.9	8.8	9.5	4.9	11	1.5
Formaldehyde	50-00-0	q	33	y	y		+	27	11	24	26	27	25	29	25	24	12	23	26	13	22	2.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by GC/MS																						
Acetophenone	98-86-2	u		y			+	< 0.9	0.99		< 1						< 0.6	< 0.9		< 0.6		2.1
2-Butoxyethanol	111-76-2	q		y		20	+	5.4	3.1		2.5						1.2	1.8		1.5		< 1
2-(2-butoxyethoxy)-ethanol	112-34-5	q		y				< 1	< 1		< 1						< 0.8	< 1		< 0.8		< 1
Caprolactam	105-60-2	q		y		100		2.6	< 2		2.8						1.2	2		1.2		< 2
Cumene	98-82-8	q		y			120	< 0.8	< 0.8		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
Methyl Isobutyl Ketone	108-10-1	q		y			+	< 0.8	< 0.8		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
1-methyl-2-pyrrolidinone	872-50-4	q			y			< 0.8	< 0.8		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
1,2,4-Trimethylbenzene	95-63-6	q		y	y		780	1.4	3.1		< 0.9						< 0.5	< 0.8		< 0.5		< 0.9
Chemicals on the California Proposition 65 and/or the CARB-TAC Lists - Analyzed by HPLC (Aldehyde-DNPH)																						
Propionaldehyde	123-38-6	q		y			65	2.7	< 1	2	2.6	< 1	2.5	2.7	< 1	< 1	< 0.7	2.6	< 1	< 0.7	3.7	< 1
Chemicals with Olfactory Thresholds - Analyzed by GC/MS																						
Benzaldehyde	100-52-7	q					190	< 2	< 2		< 2						< 1	< 2		< 1		< 2
Decanal	112-31-2	q					5.9	< 2	< 2		< 2						< 1	< 2		< 1		< 2

Table E9. Building 225 – Post-Occupancy #5 - VOC Concentrations in μg/m³ (Data Collected on 05-19-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
Heptanal	111-71-7	q					23	< 2	< 2		< 2						< 1	< 2		< 1		< 2
Hexanal	66-25-1	q					58	< 2	< 2		< 2						< 1	< 2		< 1		< 2
Hexanoic Acid	142-62-1	u					60	2.1	< 2		4.9						1.3	2.5		2.4		< 2
Nonanal	124-19-6	q					13	2.8	< 2		2.6						1.3	2.5		1.4		< 2
Octanal	124-13-0	q					7.2	< 2	< 2		< 2						< 1	< 2		< 1		< 2
Pentanal	110-62-3	q					22	< 2	< 2		< 2						< 1	< 2		< 1		< 2
Chemicals with Olfactory Thresholds - Analyzed by HPLC (Aldehyde-DNPH)																						
Butyraldehyde	123-73-9	q					28	2.7	< 1	3.3	< 1	< 1	2.3	2	< 1	2.7	< 0.7	< 1	< 1	< 0.7	3.4	< 1
Total Volatile Organic Compounds (TVOC)																						
Calculated from GC/MS-TIC																						
TVOC as Chlorobenzene-d5	n/a	u						470	230		250						120	240		130		56
TVOC as Toluene	n/a	u						170	82		100						45	89		50		19
Abundant Chemicals - Analyzed by GC/MS																						
alkyl aromatic HC (20.3 min)		u						< 2	< 2		3.4						1.7	< 2		1.8		< 2
Benzoic Acid	65-85-0	u						< 2	< 2		< 2						< 1	< 2		< 1		11
Butylcyclohexane	1678-93-9	q						< 2	< 2		< 2						< 1	< 2		< 1		< 2
C-10 branched HC (19.0 min)		u						6	3.4		5						2.4	3.9		2.3		< 2
C-11 branched HC (20.5 min)		u						8.8	4.5		3.9						2.1	3.9		2.3		< 2
C-11 branched alkane HC (20.75 min)		u						5.4	2.4		3.2						1.5	3		1.7		< 2

Table E9. Building 225 – Post-Occupancy #5 - VOC Concentrations in $\mu g/m^3$ (Data Collected on 05-19-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
C-11 branched HC (20.9 min)		u						15	7.4		5.8						3.1	5.7		3.3		< 2
C-11 branched HC (21.4 min)		u						11	5.6		4.7						2.5	4.5		2.6		< 2
C-11 branched HC (21.5 min)		u						10	4.9		4.3						2.2	4		2.4		< 2
Cyclohexanone	108-94-1	q					+	< 2	< 2		< 2						< 1	< 2		< 1		< 2
Decamethylcyclopentasiloxane	541-02-6	u						66	14		31						14	31		16		< 2
n-Decane	124-18-5	q					+	< 2	< 2		< 2						< 1	< 2		< 1		< 2
Dodecane	112-40-3	u					+	5.2	< 2		< 2						< 1	< 2		< 1		< 2
Ethyl Acetate	141-78-6	u					+															< 2
2-Ethyl-1-Hexanoic Acid	149-57-5	q						< 2	< 2		< 2						< 1	< 2		< 1		< 2
2-Ethyl-1-Hexanol	104-76-7	q					+	< 2	< 2		< 2						< 1	< 2		< 1		< 2
1-Ethyl-2-methylbenzene	611-14-3	u						3.5	6.9		< 2						< 1	< 2		< 1		< 2
1-Ethyl-3-methylbenzene	620-14-4	u						< 2	18		< 2						< 1	< 2		< 1		< 2
1-Ethyl-4-methylbenzene	622-96-8	u						3.4	7.8		< 2						< 1	< 2		< 1		< 2
n-Heptane	142-82-5	q					+	< 1	< 1		1.3						< 0.7	< 1		< 0.7		< 1
Hexadecane	544-76-3	u						3.8	< 2		< 2						< 1	< 2		< 1		< 2
d-Limonene	5989-27-5	q					+	21	2		5.5						3.6	7.8		2.8		< 2
Methylcyclohexane	108-87-2	q						< 2	< 2		< 2						< 1	< 2		< 1		< 2
n-Nonane	111-84-2	q					+	< 2	< 2		< 2						< 1	< 2		< 1		< 2
n-Octane	111-65-9	q					+	< 2	< 2		< 2						< 1	< 2		< 1		< 2

Table E9. Building 225 – Post-Occupancy #5 - VOC Concentrations in $\mu g/m^3$ (Data Collected on 05-19-04)

Compound Name	CAS Number	Quant	CREL	ARBTAC	Prop 65 Chemical	Other Limits	Olfactory Threshold	Site 1-1	Site 1-2	Site 2-1	Site 3-1	Site 3-2	Site 4-1	Site 4-2	Site 6-1	Site 6-2	AHU 1	AHU 2	AHU 2-Dup	AHU 3	AHU 4	OA
Pentadecane	629-62-9	u						9.6	< 2		< 2						< 1	< 2		< 1		< 2
alpha-pinene	80-56-8	q					+	< 2	< 2		< 2						< 1	< 2		< 1		< 2
beta-Pinene	127-91-3	q						< 2	< 2		< 2						< 1	< 2		< 1		< 2
Propylbenzene	103-65-1	u						< 2	5		< 2						< 1	< 2		< 1		< 2
Tetradecane	629-59-4	u						7.6	< 2		< 2						< 1	< 2		< 1		< 2
Texanol 1 & 3	25265-77-4	q						< 2	< 2		< 2						< 1	2.4		< 1		< 2
1,2,3-Trimethylbenzene	526-73-8	q						< 2	< 2		< 2						< 1	< 2		< 1		< 2
1,3,5-Trimethylbenzene	108-67-8	q					+	< 2	4.4		< 2						< 1	< 2		< 1		< 2
n-Undecane	1120-21-4	q					+	< 2	< 2		< 2						< 1	< 2		< 1		< 2
Abundant Chemicals - Analyzed by HPLC (Aldehyde-DNPH)																						
Acetone	67-64-1	q					+	18	12	17	18	21	17	19	21	19	11	17	21	10	19	5.2