

**Table 6: Analytical Results for Simple Simulations Conducted Using 6 Different Vermiculite Products (Phase 1)**

Product	Air Sample Locations <sup>3</sup>	Sample Type	Sample ID	PCM <sup>1</sup> (NIOSH 7400)		TEM <sup>2</sup> (EPA Level II)						
				Results (fibers/cc)	Detection Limits (fibers/cc)	Results (asbestos fibers/cc)				Fiber Type Observed	Analytical Sensitivity	
						<5mm	5-10mm	>10mm	>5mm			total
Background Prior to any Simulation	Inside Containment	Background	AI-001-A	<0.001	0.001					<0.0015	ND	0.0015
		Background	AI-002-A	<0.001	0.001					<0.0015	ND	0.0015
Zonolite Brand Vermiculite; Water Repellent; Masonry Insulation; Purchased in Frederick, MD - Bulk Samples 107232 and 107233	Inside Main Containment	Stationary	AI-006-A	overloaded <sup>4</sup> , residual dust in cartridge		0.0070	<0.0070	<0.0070	<0.0070	0.0070	actinolite	0.0070
		Stationary	AI-007-A	overloaded, residual dust in cartridge						<0.0071	ND	0.0071
		Personal	AI-010-A	overloaded, residual dust in cartridge		0.0502	<0.0502	<0.0502	<0.0502	0.0502	actinolite	0.0502
		Personal	AI-011-A	not analyzed, residual dust in cartridge		<0.0501	<0.0501	0.0501	0.0501	0.0501	actinolite	0.0501
	Outside Containment	Stationary	AI-008-A	<0.006	0.006					<0.0067	ND	0.0067
		Stationary	AI-009-A	<0.006	0.006					<0.0067	ND	0.0067
	Inside Small Containment	Settle	AI-005-A	overloaded						<0.0014	ND	0.0014
Zonolite Vermiculite, Lot# 17K02-1; Obtained from Seattle Public Utilities - Bulk Sample 107231	Inside Main Containment	Stationary	AI-014-A <sup>5</sup>	0.029	0.006	<0.0076	0.0303	0.0228	0.0531	0.0531	actinolite	0.0076
		Stationary	AI-015-A <sup>5</sup>	0.032	0.006	0.0303	0.0227	<0.0076	0.0227	0.0530	tremolite	0.0076
		Personal	AI-018-A <sup>5</sup>	0.248	0.042	0.1493	0.2488	0.1493	0.3981	0.5474	tremolite	0.0498
		Personal	AI-019-A <sup>5</sup>	0.312	0.043	<0.0501	0.1503	0.1503	0.3006	0.3008	tremolite	0.0501
	Outside Containment	Stationary	AI-016-A	<0.006	0.006					<0.0072	ND	0.0072
		Stationary	AI-017-A	0.007	0.006	<0.0072	<0.0072	0.0072	0.0072	0.0072	tremolite	0.0072
	Inside Small Containment	Settle	AI-020-A	overloaded, residual dust in cartridge		0.0015	<0.0015	<0.0015	<0.0015	0.0015	actinolite	0.0015
Zonolite Vermiculite, Lot# 6B03-2; Obtained from Seattle Public Utilities - Bulk Samples 107229 and 107230	Inside Main Containment	Stationary	AI-023-A <sup>5</sup>	0.043	0.007					<0.0080	ND	0.0080
		Stationary	AI-024-A	not analyzed, residual dust in cartridge		Indirect prep, ash, and resuspend for TEM analysis				<0.2659	ND	0.2659
		Personal	AI-027-A	overloaded, residual dust in cartridge		<0.0497	0.2484	0.2484	0.4968	0.4969	actinolite/ tremolite <sup>6</sup>	0.0497
		Personal	AI-028-A	overloaded, residual dust in cartridge		<0.0499	0.1997	0.3495	0.5492	0.5492	actinolite	0.0499
	Outside Containment	Stationary	AI-025-A	<0.006	0.006					<0.0069	ND	0.0069
		Stationary	AI-026-A	<0.006	0.006					<0.0069	ND	0.0069
	Inside Small Containment	Settle	AI-029-A	overloaded		<0.0015	0.0029	0.0102	0.0131	0.0131	actinolite	0.0015

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				Results (fibers/cc)	Detection Limits (fibers/cc)	Results (asbestos fibers/cc)					Fiber Type Observed	Analytical Sensitivity
						<5mm	5-10mm	>10mm	>5mm	total		
Zonolite Vermiculite, Lot# 2111-2; Obtained from Seattle Public Utilities - Bulk Sample 107228	Inside Main Containment	Stationary	AI-032-A	over loaded		0.0076	0.0910	0.0759	0.1668	0.1744	actinolite	0.0076
		Stationary	AI-033-A	0.124	0.006	0.0152	0.0531	0.0455	0.0987	0.1139	actinolite	0.0076
		Personal	AI-036-A	0.537	0.043	0.2310	1.0009	0.4619	1.4628	1.6938	actinolite	0.0770
		Personal	AI-037-A	0.734	0.043	0.6279	0.8791	1.7582	2.6373	3.2652	actinolite	0.1256
	Outside Containment	Stationary	AI-034-A	<0.006	0.006					<0.0071	ND	0.0071
		Stationary	AI-035-A	<0.006	0.006					<0.0070	ND	0.0070
	Inside Small Containment	Settle	AI-038-A	0.020	0.001	0.0210	0.0349	0.0384	0.0733	0.0943	actinolite	0.0035
Zonolite Attic Insulation Obtained from Resident of Wenatchee, WA - Bulk Sample 107237	Inside Main Containment	Stationary	AI-041-A	0.038	0.006	0.0217	0.0507	0.0217	0.0724	0.0941	actinolite	0.0072
		Stationary	AI-042-A	0.034	0.006	<0.0072	0.0290	<0.0072	0.0290	0.0289	actinolite/tremolite	0.0072
		Personal	AI-045-A	0.148	0.043	<0.0501	0.1002	0.0501	0.1503	0.1502	actinolite	0.0501
		Personal	AI-046-A	0.187	0.043	<0.0501	0.2004	0.1002	0.3006	0.3007	actinolite	0.0501
	Outside Containment	Stationary	AI-043-A	<0.006	0.006					<0.0072	ND	0.0072
		Stationary	AI-044-A	0.009	0.006					<0.0072	ND	0.0072
	Inside Small Containment	Settle	AI-047-A	overloaded		<0.0015	0.0105	0.0045	0.0150	0.0151	actinolite	0.0015
Strong-Lite; Attic Insulation; Mica Flakes; Purchased in Arlington Heights, IL - Bulk Sample 107227	Inside Main Containment	Stationary	AI-160-A	0.015	0.006					<0.0071	ND	0.0071
		Stationary	AI-161-A	overloaded		overloaded					-	-
		Personal	AI-158-A	0.050	0.042					<0.0495	ND	0.0495
		Personal	AI-159-A	0.061	0.042					<0.0492	ND	0.0492
	Outside Containment	Stationary	AI-163-A	<0.006	0.006					<0.0067	ND	0.0067
		Stationary	AI-164-A	<0.006	0.006					<0.0068	ND	0.0068
	Inside Small Containment	Settle	AI-162-A	0.007	0.001					<0.0016	ND	0.0016

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Note: Results for samples taken during simulation activities are in shaded rows

1 Phase Contrast Microscopy; Detection limits depend on volume of air sampled

2 Transmission Electron Microscopy, and X-Ray Diffraction; Sensitivity limits depend on several variables including the volume of air sampled, the number of grids read, and the type of filter used. Results and analytical sensitivities are presented as fibers/cc for ambient samples.

3 "Inside Main Containment" refers to air samples collected inside the main 10x10x10 foot containment, during simulation activities

"Outside containment" refers to air samples collected outside of either containment area, during simulation activities

"Personal" refers to air samples collected in the breathing zone of person inside the main 10x10x10 foot containment, during simulation activities

"Inside Small Containment" refers to air samples collected inside the 6x6x10 foot small containment, for 4 hours after simulation activities had ended

4 A note of "overloaded" or "residual dust in cartridge" is an indication that all of the asbestos fibers may not have ended up on the air filter, and results shown may not reflect actual conditions.

5 For Samples AI-014-A, AI-015-A, AI-018-A, AI-019-A, AI-023-A, residual dust was found in the cartridge

6 For Sample AI-027-A, fibers detected that were 5-10mm were both actinolite and tremolite, and fibers detected that were >10mm were actinolite