



0633835

Construction Products Division

GRACE

TO: Vermiculite Hazard
Evaluation File

DATE: July 24, 1985

FROM: S. Venuti

SUBJECT: Program Report #3 a Comparison
of SCA (Standard Product) vs.
SCA with Libby #2 Cyclone
Fines added.CC: R. J. Bettacchi/J. S. Hamilton
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Manufacturing requested that an evaluation of SCA with Libby #2 Cyclone Fines added, be included in the Vermiculite Hazard Evaluation Program. The objective of manufacturing is to find a use for Cyclone Fines which currently represents a costly disposal problem. The actual evaluation involved a comparison of a single lot of standard quality Libby #4 SCA vs. the same lot of product with ~8% (by weight) Libby #2 Cyclone Fines added at the furnace. All product was manufactured at Tampa. Dust exposures were measured at a Commercial Roof Decks job in Pasadena, Florida.

Results

Vermiculite Type	Exposures at job site 8-hour time wgt'd. avgs.	Bulk Vermiculite Respirable Fiber Concentration (Procedure C-46)		
		Fibers**	Total Dust	
Libby #4 SCA/ Standard Product	Mix Charger	0.406f/cc	50mg/m ³ (9 minute sample)	0.9ppm
	Mix Operator	0.050f/cc	—	
	*Material Handler	≤0.166f/cc	—	
Libby #4 SCA/ with ~8% Libby #2 Cyclone Fines added	Mix Charger	0.319f/cc	39.2mg/m ³ (12 minute sample)	7.5ppm
	Mix Operator	0.082f/cc	—	
	*Material Handler	≤0.062f/cc	—	

*NOTE: The Material Handler spent less time deep in the trailer when Material with Cyclone Fines was used. (See Appendix #1).

**NOTE: Dusty conditions made it necessary to change filters after only 2-36 minutes of sampling time. (See Appendix #3) OSHA Guidelines state that filters should be changed only after 1 hour minimum.