

studied by highly qualified investigators whose reports were published in 1955,⁽¹⁶⁾ 1965,⁽¹⁴⁾ 1968,⁽²⁴⁾ and 1977.⁽¹⁹⁾ These workers represent the only cohort of asbestos workers in the world in which health effects have been correlated with definitive exposure data defined as fibers per cc. It would be premature and ill advised to change the present OSHA standard of 2 fibers longer than 5 μ m/cc for chrysotile without indications from this study population of the advisability for such change. The same TLV is assigned to other forms of asbestos not specifically named herein.

The exposure level of crocidolite and amosite, particularly of the former, must be sharply lower than that of chrysotile because of their greater potential for disease production. In view of the lack of accurate information of the dose-effect relationship pertaining to these two types of asbestos, the arbitrary assignment of 0.5 fiber/cc longer than 5 μ m appears reasonable and prudent for amosite. Since crocidolite may be more pathogenic than amosite, a TLV of 0.2 fiber/cc longer than 5 μ m is recommended, as well as the A1, proven carcinogen, designation for all types of asbestos.

Tabulation of Significant Findings
in Two Epidemiologic Investigations of
Workers in the Same Hard Rock Gold Mine

Size of Cohort		McDonald et al ⁽²³⁾		Gillam et al ⁽²⁴⁾	
		1321		440	
Number of Deaths		Observed	Expected	Observed	Expected
Respiratory Cancer		17	16.5	10	2.74
Nonmalignant	Pneumoconiosis	39*	0	5	1.85
Respiratory	Respiratory TBC Silico-TBC	39	3.6		
Other Nonmalignant Respiratory Disease		?	?		

*37 of the 39 deaths were ascribed to silicosis.

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