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TOXICITY		SAFETY	
MEASUREMENT AND CONTROL OF ASBESTOS DUST EXPOSURE		ENGINEERING STANDARD	
ISSUED		S 4 T	
THIS PAGE REVISED		Page 1 of 5	
Any portion of this or referenced document printed in red is a mandatory requirement of the Williams-Steiger Occupational Safety and Health Act of 1970 (OSHA) as published in the Federal Register.			
1. SCOPE		2.4 Control methods, such as but not limited to, enclosure, vacuum sweeping, and local exhaust ventilation, shall be used to meet the permissible exposure limits, see section 3.	
This standard presents the permissible exposure limits to asbestos dust, general information on methods of controlling asbestos dust exposures, and describes an acceptable method of sampling asbestos dust concentrations in the work area.		2.5 Respiratory protective devices, shall be provided and used where such control methods are not feasible, or do not otherwise reduce the concentrations below the permissible exposure limits, see section 4.	
2. GENERAL		2.6 Hygiene requirements are included in section 5.	
2.1 Asbestosis and lung cancer have long been associated with exposure to asbestos. Historically, the incidence of these diseases has been significantly higher among asbestos workers than among the general population.		2.7 Smoking. For sampling equipment, monitoring, analysis record keeping, and warning signs, see section 6.	
2.2 Principal sources of exposure to airborne asbestos dust in Company operations have been:		2.8 Nonasbestos bearing materials should be substituted where asbestos contributes to a dust concentration exceeding the permissible exposure limits.	
a. Cutting insulation by power saws in fabrication shops		3. CONTROL OF ASBESTOS DUSTS	
b. Opening boxes and removal of new insulation		3.1 Handling Asbestos Insulation	
c. Removing old insulation from lines and vessels		3.1.1 Cartons of block insulation are a potential source of severe dust exposure and should be handled with care. The rough, abrasive nature of the block material creates dust within the cartons.	
d. Mixing asbestos to form cement		3.1.2 Cartons of new insulation should be vacuumed upon opening, and prior to removal of blocks, to remove dust.	
e. Removal of clothing after completing insulating duties		3.1.3 Asbestos blocks must be handled with care at all times to minimize dusting.	
f. Cutting asbestos shingles, Transite, etc.		3.1.4 Purchase of block insulation with a glass coating is recommended. This makes it virtually dust free for handling purposes.	
g. Spraying insulation or fireproofing		2.2 Asbestos Cutting Operations	
h. Ingredient in Company products		3.2.1 All hand-operated or power-operated tools which may produce or release asbestos fibers in excess of the permissible exposure limits shall be provided with a dust collection system, see 3.6.	
2.3 Permissible Exposure Limits. Asbestos dust concentrations in air shall not exceed an 8-hour time-weighted average (TWA) of 5 fibers longer than 5 microns per cubic centimeter (cc) of air. At no time may the concentration exceed a ceiling of 10 fibers longer than 5 microns per cc.		3.2.2 All major power-cutting machines should be isolated in a separate working area.	
2.3.1 The 8-hour time-weighted average (TWA) is the average concentration occurring over a period of 8 continuous hours.		Portions printed in red meet OSHA regulations, Section 1910.93.	
2.3.2 After July 1, 1976, the TWA is reduced from 5 to 2 fibers longer than 5 microns per cc.		Vendors and merchandise designations are given to describe materials and do not include all acceptable products. Substitutions by suppliers are to be made only on approval of the local authority instituting the use of this standard	
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