

**CHAPTER 15****ASBESTOS****15-1 SCOPE**

This Chapter contains criteria to control and abate threats to human health and the environment from asbestos, and describes management of asbestos during removal and disposal.

**15-2 DEFINITIONS**

15-2.1 Asbestos. Generic term used to describe six distinctive varieties of fibrous mineral silicates, including chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any other types of these materials that have been chemically treated and/or altered.

15-2.2 Asbestos Containing Material (ACM). Any material containing more than one (1) percent asbestos by weight as determined by the polarized light microscopy/dispersion staining method.

15-2.3 Friable Asbestos. Any ACM that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.

15-2.4 Permissible Exposure Limit (PEL). An airborne concentration of one tenth of any or combination of asbestos fiber per cubic centimeter (0.1 f/cc) as an eight hour time-weighted average and/or 1.0 f/cc averaged over a 30-minute sampling period.

15-2.5 Assessment. A process conducted for each occurrence of asbestos that determines the potential for environmental release and the associated risks to human health and environment .

15-2.6 Clearance Sampling. An aggressive air sampling done at the completion of an asbestos removal, renovation, or repair project to ensure the work area is free of asbestos fibers.

**15-3 CRITERIA**

15-3.1 Installations shall appoint an asbestos program manager to serve as the single point of contact for all asbestos related activities.

15-3.2 Installations shall prepare and implement an asbestos management plan. As a minimum, the plan shall address the following:

- a. An installation-wide survey of all structures to determine the location, extent, and condition of all ACM;
- b. A notification and education program to tell workers, tenants, and building occupants where ACM is located, and how and why to avoid disturbing the ACM; all persons affected should be properly informed;
- c. Regular surveillance or monitoring procedures to note, assess, and document any changes in the ACM's condition;
- d. Work control/permit systems to control activities which might disturb ACM;
- e. Operations and maintenance work practices to avoid or minimize fiber release during activities affecting ACM;

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- f. Record keeping to document operations and maintenance activities related to asbestos identification management and abatement;
- g. Medical and respiratory protection programs, as applicable;
- h. Training for the asbestos program manager as well as custodial and maintenance staff, and
- i. Procedures to assess and prioritize identified hazards for abatement;

15-3.3 Installations shall not expose employees, visitors, or contractors to airborne asbestos concentrations above the PEL without appropriate personal protective equipment.

15-3.4 Prior to the demolition or renovation of a facility, the installation shall make a determination whether or not the activity shall remove or disturb ACM, and shall record this determination on the project authorization document (e.g., work order).

15-3.5 Prior to the demolition or renovation of a facility that involves removing or disturbing friable ACM, a written assessment of the action shall be prepared and furnished to the installation asbestos program manager. A copy of the assessment shall also be kept on permanent file.

15-3.6 Installations shall remove ACM when it poses a threat to release airborne asbestos fibers and cannot be reliably repaired or isolated.

15-3.7 Before disturbing or demolishing a facility or part of a facility, installations shall remove all ACM. Because ACM has a high degree of probability of becoming friable once disturbed during demolition.

15-3.8 Before and during removal of asbestos, installations shall as a minimum:

- a. Prior to removal, all workers involved in the removal should receive training for asbestos abatement;
- b. Ensure signs are posted and visible at all approaches to asbestos work areas. Signs shall be bilingual and state the following: Danger. Asbestos. Cancer and lung disease hazard. Authorized personnel only. Respirators and protective clothing are required in this area.
- c. Establish air monitoring programs during asbestos removal operations to document exposure levels for assuring that the quality of the air environment is maintained at satisfactory levels throughout the entire operations;
- d. Ensure that all workers involved in the removal are medically qualified and use properly fitted respiratory protection and personal protection equipment; and
- e. Use engineering controls and work practices to contain and control asbestos fiber releases for all asbestos removal that has the potential to release airborne asbestos fiber greater than the PEL. Conduct visual survey to ensure that all dust and debris were cleaned up prior to the final clearance air sampling.

15-3.9 Following the completion of clean-up operations but before removal of the enclosure of the asbestos control area, final clearance air sampling shall be taken. All final clearance samples at all locations shall indicate concentrations of airborne fibers less than 0.01 f/cc.

15-3.10 Small scale, short-duration maintenance or renovation activities that use glove bags to enclose the work area will not require air monitoring programs during performance of work unless deemed necessary by the installation safety and health officials.

15-3.11 Project designers, inspectors, management planners, supervisors and workers involved in repair, removal, maintenance, and disposal of ACM will be trained and certified in accordance with U.S. regulatory standards. For local workers, as a minimum, they shall present valid Japanese accreditation or permit for asbestos removal/abatement. All Local contractors shall comply with JEGS standards and requirements which must be stated in the asbestos bidding/contract document.

15-3.12 Disposing of Asbestos Waste. Installations shall dispose of asbestos waste through DRMO or in accordance with Japanese regulatory laws. Permanent records documenting the disposal action and site shall be maintained. In Japan, asbestos wastes can be melted and disposed of in a municipal solid waste landfill. If not melted, the asbestos waste shall be handled in the following procedure:

- a. Pre-treatment: Wetted and contained in double high strength plastic bags or solidification by cement.
- b. Labeled in English and Japanese: "DANGER - ASBESTOS WASTES," and "AVOID CREATING DUST-CANCER AND LUNG DISEASE HAZARD."
- c. Disposed in a Government of Japan approved vault or impervious type landfill.

15-3.13 DOD schools will:

- a. Identify friable and non-friable ACM in elementary and secondary schools;
- b. Sample all suspect materials that are not confirmed to be ACM;
- c. Analyze samples by appropriate techniques;
- d. Attach bilingual warning labels immediately adjacent to any ACM in routine maintenance areas (such as boiler rooms);
- e. Have an accredited DOD inspector provide an assessment of all friable, known or assumed, ACM in school buildings;
- f. Select and implement in a timely manner appropriate response actions sufficient to protect human health and the environment;
- g. Ensure all maintenance and custodial persons, who may work in a building containing ACM receive awareness training regarding asbestos, its uses and forms, locations in school buildings, and recognition of ACM;
- h. Develop and maintain a master registry of ACM detailing the location, condition, and status of each identified ACM, and records of O&M activities related to asbestos training, identification, management, removal, and abatement; and
- i. Develop an asbestos management plan for each school, including all leased or owned facilities;

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