

## SCOPE & DEFINITIONS

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. Policy requirements for a comprehensive Occupational Health and Safety program are not covered in this chapter. To protect personnel from asbestos exposure, refer to DoDI 6055.1 (DoD Occupational Safety and Health Program) and DoDI 6055.5 (Industrial Hygiene and Occupational Health) and concomitant service instructions.

**Action Limit** – An airborne asbestos concentration of the following, calculated as an 8-hour time-weighted average (TWA) over a 40-hour work week:

- 0.2 fibers/centimeter<sup>3</sup> (f/cm<sup>3</sup>) for chrysotile, or a cumulative dose of 12.0 fiber-days/cc over a 3-month period
- 0.1 f/cm<sup>3</sup> for all other forms of asbestos (including mixtures with chrysotile), or a cumulative dose of 6.0 fiber-days/cc over a 3-month period

**Adequately Wet** – Sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from ACM, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

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

**Asbestos-Containing Material (ACM)** – Any material containing more than 1 percent asbestos by weight.

**Exposure Limit** – An airborne asbestos concentration of 0.6 f/cm<sup>3</sup> for chrysotile or 0.3 f/cm<sup>3</sup> for all other asbestos types (including mixtures with chrysotile) calculated as an 8-hour TWA over 40 hours/week.

**Friable Asbestos** – Any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

**Local National** – An employee hired under Greek employment conditions.

## CRITERIA

### **C15.1 ASBESTOS PROGRAM MANAGER**

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

## C15.2 ASBESTOS MANAGEMENT PLAN

Installations will prepare and implement an asbestos management plan. As a minimum, the plan will include the following:

- C15.2.1 An ACM inventory, conducted by sample and analysis or visual determination.
- C15.2.2 A notification and education program to tell workers, tenants, and building occupants where potentially friable ACM is located and how and why to avoid disturbing the ACM; all persons affected should be properly informed.
- C15.2.3 Regular ACM surveillance to note, assess, and document any changes in the ACM's condition. As part of the surveillance, airborne asbestos emissions must be measured annually. If asbestos fibers could be discharged in wastewater, the wastewater must be sampled and analyzed for asbestos every 6 months. If airborne asbestos emissions exceed  $0.1 \text{ mg/m}^3$  or the wastewater discharge exceeds  $30 \text{ g/m}^3$  of total suspended asbestos particles, the exceedence must be noted in a logbook (see C15.2.6) and an explanation for the exceedence must be provided. The results of the airborne asbestos monitoring (annually) and the wastewater monitoring (every 6 months) must be submitted to the Greek Representative, who may forward the results to the competent Greek authorities (see Chapter 1 for the procedure).
- C15.2.4 Work control/permit systems to control activities that might disturb ACM.
- C15.2.5 Operations and maintenance (O&M) work practices to avoid or minimize fiber release during activities affecting ACM; the following measures must be taken whenever the asbestos action limit is exceeded:
- Isolation of the work area
  - Posting of warning signs
  - Provision and use of protective clothing and respirators
  - Monitoring of the airborne asbestos concentration
  - The use of wet methods where practical
  - Frequent cleaning during the activity to minimize airborne asbestos fibers

The warning signs must be posted in English and Greek and must contain the following information:

Asbestos – Do Not Enter This Area Unless Required for Work  
Inhaling of Asbestos Fibers is Dangerous to Health  
ΑΜΙΑΝΤΟΣ – ΜΗΝ ΕΙΣΕΡΧΕΣΘΕ ΣΤΟ ΧΩΡΟ ΑΝ ΔΕΝ ΕΧΕΤΕ ΕΡΓΑΣΙΑ  
Η ΕΙΣΓΙΝΟΗ ΣΚΟΝΗΣ ΑΜΙΑΝΤΟΥ ΕΙΝΑΙ ΕΠΙΚΙΝΔΥΝΗΓΙΑ ΤΗΝ ΥΓΕΙΑ

The following phrase must be added when the asbestos concentrations are known or suspected to exceed the exposure limit:

Exceedance of exposure limit is probable  
ΓΙΘΑΝΗ ΥΓΙΕΡΒΑΣΗ ΤΩΝ ΟΡΙΑΚΩΝ ΤΙΜΩΝ

C15.2.6 Record-keeping to document O&M activities related to asbestos identification, management, and abatement. The asbestos program manager will also maintain a record (logbook) of any airborne and effluent asbestos emissions sampling and analysis conducted at the installation. The logbook will be available for review by the competent public authority (see Chapter 1 Section 6 for the procedure for access to installations by Greek authorities).

C15.2.7 Training for the asbestos program manager as well as custodial and maintenance staff. At a minimum, the training program must include:

- The potential health hazards from exposure to asbestos
- The asbestos exposure limits
- Preventive measures to reduce those risks (including refraining from smoking)
- The use of appropriate personal protective equipment and clothing

C15.2.8 Procedures to assess and prioritize identified hazards for abatement.

C15.2.9 Procedures to prevent the use of ACM in new construction.

### **C15.3 DETERMINATION PRIOR TO DEMOLITION OR RENOVATION**

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

### **C15.4 ASSESSMENT FOR REMOVAL / DISTURBANCE OF FRIABLE ACM**

Prior to the demolition or renovation of a facility that involves removing or disturbing friable ACM, a written assessment of the action will be prepared and furnished to the installation commander. A copy of the assessment will also be kept on permanent file.

### **C15.5 REMOVAL OF FRIABLE ACM**

Installations will remove friable ACM when it poses a threat to release airborne asbestos fibers and cannot be reliably repaired or isolated.

**C15.6 REMOVAL OF ACM PRIOR TO DEMOLITION OR DISTURBANCE**

Before disturbing or demolishing a facility or part of a facility, installations will remove all friable ACM, and ACM with a high degree of probability of becoming friable once disturbed during demolition.

Prior to commencing the removal activities, a detailed work plan will be prepared for the project. The work plan must include the following items at a minimum:

- A description of all measures to be taken to protect the health and safety of workers
- The nature, time, possible duration, and location of the activities
- The methods to be used when handling ACM
- The personal protective equipment to be used by the demolition personnel, as well as adjacent workers if appropriate
- Decontamination measures and cleaning of the demolition site (with vacuum techniques if economically feasible)
- Collection, labeling, and disposal of the ACM
- Any additional practicable measure that will be taken to minimize airborne asbestos fibers, such as wetting ACM not planned for removal, covering any openings at the worksite (e.g., covering windows with plastic sheets), etc.

The work plan must be submitted to the Greek Representative, who may forward it to the following Greek agencies for approval and issuance of two corresponding permits:

- The Ministry of Labor's local Labor Inspection Service
- The Ministry of Environment's Town Planning and Public Works (through the competent local Prefect)

During the ACM removal activity, installations must:

- Use trained personnel who are aware of the potential hazards and the corresponding protective measures
- Install warning signs (the language for the signs is discussed in C15.2.5)
- Monitor airborne asbestos concentrations and implement protective measures in accordance with the work plan

**C15.7 MANAGEMENT & DISPOSAL OF ASBESTOS WASTE**

Friable asbestos is classified as a hazardous waste. Non-friable asbestos is classified as a special solid waste. When disposing of asbestos waste, installations will adequately wet all ACM waste and seal it in a leak-proof container labeled in English and Greek:

Danger - Contains Asbestos Fibers  
Inhalation of Asbestos Fibers is Hazardous to Health  
Follow the Safety Instructions

ΠΡΟΣΟΧΗ - ΠΕΡΙΕΧΕΙ ΑΜΙΑΝΤΟ  
Η ΕΙΣΠΝΟΗ ΣΚΟΝΗΣ ΑΜΙΑΝΤΟΥ ΕΙΝΑΙ ΕΠΙΚΙΝΔΥΝΗ ΓΙΑ ΤΗΝ ΥΓΕΙΑ  
ΤΗΡΕΙΤΕ ΤΙΣ ΟΔΗΓΙΕΣ ΑΣΦΑΛΕΙΑΣ

These labeling and containment requirements also apply to asbestos-contaminated protective clothing collected for cleaning.

The transport of asbestos waste on public roads or in-country disposal of asbestos waste must be conducted by authorized companies who hold permits from the competent Greek authorities. Asbestos waste must be disposed as follows:

- Non-friable ACM can be disposed in a municipal landfill, if covered by other solid waste
- Friable ACM must be disposed in an authorized hazardous waste landfill and must be covered by layer (at least 25 cm thick) of stabilized soil or other material capable of preventing the release of asbestos fibers to the environment

Permanent records documenting the disposal action and site will be maintained. Additional record-keeping requirements and manifesting requirements for friable asbestos waste are established in Chapter 6. Additional record-keeping requirements for non-friable asbestos waste are established in Chapter 7.

### **C15.8 DOD SCHOOLS**

DoD schools will comply with applicable requirements 15 U.S.C. Chapter 53 Section 2643(l) and implementing regulations in 40 CFR Part 763, Subpart E.

### **ADMINISTRATIVE ITEMS**

1. The results of the C15.2.3 airborne asbestos monitoring (annually) and the wastewater monitoring (every 6 months) must be submitted to the Greek Representative, who may forward the results to the competent Greek authorities (see Chapter 1 for the procedure).
2. A work plan must be prepared for all ACM abatement/removal actions. The work plan must be submitted to the Greek Representative prior to commencement of the work. The Greek Representative may forward the work plan to the following Greek agencies for approval and issuance of two corresponding permits:
  - The Ministry of Labor's local Labor Inspection Service
  - The Ministry of Environment's Town Planning and Public Works (through the competent local Prefect)