

Monitoring Asbestos-Containing Material (ACM)

Periodic Visual Reinspections and Air Monitoring

A visual reinspection of all ACM should be conducted at regular intervals as part of the O&M program to help ensure that any ACM damage or deterioration will be detected and corrective action taken.

- EPA's [asbestos regulations for schools \(the Asbestos Hazard Emergency Response Act, "AHERA"\)](#), require that an accredited inspector reinspect school buildings at least once every three years to reassess the condition of ACM. [Read more about training requirements for accredited asbestos control professionals.](#)
- The AHERA regulations for schools also require a routine surveillance check of ACM every six months to monitor the ACM's condition. This surveillance can be conducted by a trained school custodian or maintenance worker.
- While only school buildings are required to have surveillance checks every six months, it is a good practice for other buildings with ACM. The asbestos program manager (APM) should establish appropriate surveillance and reinspection intervals, based on consultation with the building owner and any others involved in the O&M program.
- EPA recommends a visual and physical evaluation of ACM during the reinspections to note the ACM's current condition and physical characteristics. Through this reinspection, it is possible to determine both the relative degree of damage and assess the likelihood of future fiber release.
- Maintenance of a set of visual records (photos or video) of the ACM over time can be of great value during reinspections.

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Additional Prevention Measures

Supplemental Air Monitoring

As part of an O&M program, a carefully designed air monitoring program to detect airborne asbestos fibers in the building may provide useful supplemental information when conducted along with a comprehensive visual and physical ACM inspection and reinspection program. For employees who are, or may reasonably be expected to be exposed to airborne concentrations of asbestos fibers above the permissible limits set by the Occupational Safety and Health Administration (OSHA), regulations require that the employer conduct both initial and periodic air sampling. For more information about the OSHA exposure monitoring requirements, [see the regulations at 29 CFR § 1910.1001\(d\)](#)[Exit Exit EPA website](#).

If the ACM is currently in good condition, increases in airborne asbestos fiber levels at some later time may provide an early warning of deterioration or disturbance of the material. In that way, supplemental air monitoring can be a useful management tool. If an owner chooses to use air monitoring in an "early warning" context, a knowledgeable and experienced individual should be consulted to design a proper sampling strategy.

This air monitoring should supplement, not replace, physical and visual inspection. Visual inspection can recognize situations and anticipate future exposure (e.g., worsening water damage), whereas air monitoring can only detect a problem after it has occurred, and fibers have been released.

Sampling Methods

Note that the collection of air samples for supplementary evaluation **should not use aggressive air sampling methods**. Aggressive sampling methods, in which air is deliberately disturbed or agitated by use of a leaf blower or fans, should only be used at the completion of an asbestos removal project inside the abatement containment area.

Methods of Air Sampling Analysis

The most accurate and preferred method of analysis of air samples collected under an O&M program requires the use of transmission electron microscopy (TEM). Phase contrast microscopy (PCM), which is commonly used for personal air sample analysis and as a screening tool for area air monitoring, cannot distinguish between asbestos fibers and other kinds of fibers which may be present in the air. PCM analysis also cannot detect thin asbestos fibers, and does not count short fibers. TEM analysis is more expensive than PCM analysis. However, the more accurate information on actual levels of airborne asbestos fibers that can be derived from TEM should be more beneficial to the building owner who elects to use supplemental air monitoring in the asbestos management program. TEM analysis is most reliably performed by laboratories accredited by the National Institute of Standards and Technology~~Exit~~ [Exit EPA website](#) and who follow EPA's quality assurance guidelines. (U.S. EPA, Dec. 1989, Transmission Electron Microscopy Asbestos Laboratories: Quality Assurance Guidelines. Washington, DC: EPA 560/5-90-002).