



University of Hawaii EHSO 2040 East-West Rd. 808-956-8660 [www.hawaii.edu/ehso](http://www.hawaii.edu/ehso)

## University of Hawaii EHSO Frequently Asked Questions Regarding Asbestos Removal<sup>1</sup>

### **Q. Is it safe to be doing asbestos abatement inside an occupied building?**

A. Yes. Asbestos abatement contractors must follow strict regulations when performing asbestos abatement to ensure that asbestos fibers are not dispersed outside the work area, particularly during indoor projects. The abatement area is segregated from occupied/non-abatement areas using plastic sheeting and in some cases, plywood. Only the abatement contractors are allowed to enter the abatement area once the project begins. During the removal process, the contractors take several precautions to minimize dispersal of asbestos fibers, which includes wetting the materials. A "negative air" machine draws air from the abatement area through a series of filters, including a High Efficiency Particulate Air (HEPA) filter, to remove asbestos fibers and dusts that may contain asbestos. This ensures that the abatement area is "negative" with respect to the uninvolved area, such that air does not flow out of the abatement area into occupied areas, except through filters. The filtered air is exhausted to the exterior of the building. A third-party Industrial Hygienist conducts testing outside of the abatement area to confirm that there are no elevated fiber levels outside the work area. Given these precautions, people outside of the abatement area are not at risk for exposure to asbestos from these abatement projects.

### **Q. What is the difference between friable and non friable asbestos?**

A. **Friable** asbestos-containing material (ACM) is any material containing more than one percent (1%) asbestos that, when dry, **can** be crumbled, pulverized, or reduced to powder by hand pressure (an example material would be popcorn ceiling on older buildings). **Non-friable** ACM is any material containing more than one percent (1%) asbestos that, when dry, **cannot** be crumbled, pulverized, or reduced to powder by hand pressure. It is possible for non-friable ACM to become friable when subjected to unusual conditions, such as demolishing a building or removing ACM that has been glued into place without using control methods.

### **Q. It looks like there is an air hose coming out of the abatement area. Is there asbestos coming out of it?**

A. In most asbestos abatement containment areas, a "negative air" machine draws potentially contaminated air across a series of filters, with a High Efficiency Particulate Air (HEPA) filter, to remove any asbestos fibers and dusts that might contain asbestos. The exhaust from this machine may be placed outside of the abatement area. The air coming from it has been pulled through filters that are proven to trap asbestos fibers. Typically, air samples to monitor asbestos fibers are placed near the filter/exhaust to confirm no release occurs outside of the abatement areas.

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<sup>1</sup> Reference: NYU Frequently Asked Asbestos Questions

[https://www.nyu.edu/content/dam/nyu/environmentalHealthSafety/documents/Freq\\_Asked\\_Quests\\_Asbestos\\_Removal.PDF](https://www.nyu.edu/content/dam/nyu/environmentalHealthSafety/documents/Freq_Asked_Quests_Asbestos_Removal.PDF)

**Q. During the abatement, can asbestos travel to other areas through the ventilation system?**

A. For interior projects, during the preparation of the abatement area, all vents connected to the building's ventilation system are sealed. In most cases, the ventilation system is turned off to the work area during the abatement. Thus, protective measures are taken to prevent asbestos from traveling to areas outside of the containment area. For rooftop projects, the location of the air intakes is considered. Regardless, planning for ventilation systems is considered in the work plan and based on the type of asbestos material being removed (friable vs non-friable - see below).

**Q. How do we know that asbestos is not coming out of the abatement area?**

A. Asbestos abatement regulations require the University to hire a third party Industrial Hygienist to conduct air testing for asbestos outside of the abatement area. Testing is conducted on-site. Test reports are available to the abatement firm, the UH Facilities project manager, and EHSO.

**Q. How do we know that the area is safe after an asbestos abatement?**

Asbestos abatement projects utilize a third-party Industrial Hygienist to conduct clearance testing after the area has been cleaned up and before the area may be reoccupied. Testing is conducted on-site and test reports are available to the abatement firm and the Facilities project manager. A work area will not be released to the building until successful final air clearance in the work area has been achieved.

**Q. Are the people removing the asbestos University employees?**

A. No. University faculty, staff and students are prohibited from intentionally disturbing asbestos-containing material and from removing such materials. The University hires certified, licensed, asbestos abatement contractors. Each abatement worker and asbestos project manager (site supervisor) has been independently trained and certified with the State of Hawaii, Department of Health.

**Q. How do we know that the asbestos abatement contractors are doing their job correctly?**

A. Regulatory inspectors can conduct unannounced inspections of many abatement projects that take place on campus. Also, the University's Project Manager follows up on all projects on a daily basis. In addition, a third party environmental consultant (Industrial Hygienist) ensures that the contractor is performing work per applicable regulations.

**Q. What happens to the asbestos that is removed?**

A. While still in the abatement area, the contractors place the wet asbestos debris in specially marked bags. Before bringing them out of the abatement area, the sealed bags of debris are washed and then placed in secondary bags that are also marked "Asbestos-Containing Materials". The sealed bags are placed in locked dumpsters before being transported to a secure landfill that accepts asbestos waste.

**Q. How do the asbestos abatement contractors avoid bringing asbestos out of the abatement area on their clothing?**

A. Asbestos contractors wear disposable suits, hoods, gloves, shoe covers and respirators. Between the abatement area and the non-abatement area, there is a clean-up/decontamination area where the contractors remove their protective clothing before entering the clean zone. At no time does a worker exit the abatement area without properly decontaminating himself/herself.

In all cases, the regulations require air monitoring outside the abatement area, which confirms that there is no contamination outside the abatement area.

**Q. What type of air tests are conducted for asbestos abatement projects and when and where are tests taken?**

A. 1) *Baseline* - before the start of the abatement in the asbestos area. 2) *During Abatement* - inside AND outside of containment areas for duration of the abatement project. 3) *Final Clearance* - for indoor projects, after completion of abatement plus visual inspection.

Additional Resources:

UH EHSO Occupational Health and Safety Program

<https://www.hawaii.edu/ehso/occupational-health-safety/>

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State of Hawaii Department of Health - Indoor and Radiological Health Branch

Asbestos Program

<https://health.hawaii.gov/irhb/asbestos/>

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State of Hawaii, Division of Occupational Health and Safety

<http://labor.hawaii.gov/hiosh/>

830 Punchbowl Street #423

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OSHA Asbestos in Construction: <https://www.osha.gov/SLTC/asbestos/construction.html>