



Case Study - Asbestos Popcorn or Acoustical Ceilings

Project Description: Hotels, Libraries, Schools, Theaters, Commercial Buildings and Residential Homes.

AET Experience: Popcorn ceilings are decorative spray-applied finish coatings used to dampen sound; and to hide surface imperfections in buildings constructed between the 1950's and 1980's. The underlying substrate below the popcorn coatings can be plaster, drywall or concrete. The application of spray-on asbestos containing coatings were banned in 1998.

The popcorn coating is textured up to 1/4" thick and can contain between 3-8% chrysotile asbestos. This coating is friable and classified as Regulated Asbestos Containing Materials (RACM) and must be removed before building demolition. OSHA controls removal of popcorn ceilings as Class I asbestos work and must be completed by a licensed asbestos contractor inside of a negative pressure enclosure. Costs to remove popcorn ceilings usually range from \$3.00-\$5.00 per square foot.

Proper Identification: Popcorn ceilings are classified as surfacing material by the EPA and require 3, 5, 7 or 9 samples (depending on quantity) to be collected to rebut asbestos content. Asbestos fibers/content in popcorn ceilings is not uniform and can vary significantly between sampling locations. EPA AHERA protocol states "if any 1 sample contains more than 1% asbestos by weight, the entire ceiling is assumed to contain asbestos" Bulk samples are analyzed by Polarized Light Microscopy (PLM) in an NIST accredited laboratory.



Intact vs. Damage: Intact (undisturbed) popcorn ceilings can be managed in-place in an Operations and Maintenance program and do not pose significant health risks. Where disturbed or debris is observed, the asbestos containing coatings may be repaired or removed and surface contamination properly cleaned up. Disturbance is often caused by:

- Window treatments (blinds, curtains, etc) rubbing up against coatings
- Direct contact by outside contractors or building maintenance staff installing, repairing, maintaining or adjusting ceiling mounted items.
- Water damage to ceilings caused by leaks

When you need professional help or advice, email Alan Sutherland, CIH, CHMM at a.sutherland@aetinc.biz or call 610-891-0114. We provide nationwide services; phone consultations are free. Check out the full range of environmental contracting/consulting services we provide at our website www.aetinc.biz.