

METHODS

Airborne Asbestos Structures (TEM)

Air sample analysis was performed in accordance with Asbestos Hazard Emergency Response Act (AHERA) methods set forth at 40 CFR Part 763, Subpart E, Appendix A. Air samples were analyzed by Transmission Electron Microscopy (TEM). The presence of asbestos structures was determined using the morphological characteristics, Selected Area Electron Diffraction (SAED) patterns and Energy Dispersive X-ray Micro-analysis (EDXA)

Settled Dust Characterization

Four (4) representative samples were collected using an adhesive medium and/or collected from an exposed surface area, were removed and placed in a plastic bag and then submitted for composition analysis.

Dust characterization was performed in accordance with: (1) procedures described in "Method for the determination of asbestos in bulk building materials" published by the U.S. Environmental Protection Agency, EPA-600/R-93/116, July 1993; and (2) standard procedures using polarized light microscopy (PLM).

For samples analyzed at Ambient Group (NVLAP # 101618), the sample is first examined under a low power stereo microscope for morphology, homogeneity, macroscopic and semi-quantitation of constituents can be made at the point. A representative subsample is removed and mounted in a series of high dispersion refractive index liquids and stains to identify fibers, minerals, pollen, spores and human skin flakes. The prepared subsample is placed on the stage of a polarizing light microscope and is examined under plane polarized light for color, morphology and refractive indices. The Bertrand lens is then inserted to obtain the optical signs of minerals particulates. The polars are then crossed and the optical properties such as birefringence, sign of elongation and extinction characteristics are observed and noted. The polars are then uncrossed and McCrone Central stop dispersion staining objective is inserted to determine dispersion colors.

Airborne Dust Characterization

Sampling for dust components was accomplished with a Zefon Air-O-Cell sampler cassette. Particles in the air stream are accelerated to a minimum velocity of approximately 35 mph (at a flow rate of 15 liters per minute) through a tapered slit and aimed directly at an adhesive and optically clear sampling substrate by inertial impaction.