

A. BULK SAMPLES

Definition: Any material containing more than 1% asbestos as determined by PLM (Polarized Light Microscopy).

Methodology – Appendix A Subpart F 40 CFR part 763 section 1

B. AIR SAMPLES

PCM (Phase Contrast Microscopy)

Clearance Criteria – 0.01 fibers/cc or less

Limitation

PCM cannot distinguish asbestos from non-asbestos fibers

PCM does not count fibers sizes less than 5 micron in length

Methodology – NIOSH 7400

TEM (Transmission Electron Microscopy)

Clearance Criteria – 70 structures / sq.mm

TEM can count fiber sizes less than 0.5 micron and can differentiate between asbestos and non-asbestos fibers

Methodology – AHERA

AHERA- (Asbestos Hazard Emergency Response Act) standard is a very stringent indoor standard that is used to determine whether children may re-enter a school building after asbestos has been removed.

EPA and City used this standard because it is most stringent and protective, even though it is unlikely that the public will be exposed to asbestos from WTC site for extended period of time.

C. DUST SAMPLES

EPA or NYS or NYC does not have a standard for sampling dust.

The presence of asbestos in dust is not necessarily a significant hazard. The dust must become airborne and be inhaled for it to cause health problems.

Measurement of asbestos in air are more accurate indicators of the potential for exposure.

Methodology – American Society for Testing and Materials - ASTM D5755

Limitation (As per ASTM document attached)

5.1.1 This test method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with ACM or compliance with federal or state or local regulations or statutes.

5.1.2 At present, a single relationship between asbestos containing dust and potential human exposure does not exist.