



Standard Practice for Asbestos Exposure Assessments for Repetitive Maintenance and Installation Tasks¹

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1. Scope

1.1 This practice establishes procedures for assessing the exposure of workers to airborne fibers who perform repetitive tasks of short duration where small quantities of asbestos-containing materials must be disturbed in order to perform maintenance and installation activities.

1.2 This practice describes the facilities and equipment for performing the tasks under controlled conditions for the express purpose of collecting personal air samples to determine worker exposure. The tasks are performed on actual asbestos-containing materials during Exposure Assessment tests and precautions are taken for personal protection and avoiding contamination of adjacent spaces.

1.3 This practice describes the air sample collection procedures, the analytical methods for the air samples, and the calculation of worker exposure including the use of statistical confidence limits. This practice differentiates between the test to obtain exposure data and the current job to which the data are applied, and describes the duties of the individuals who conduct these separate activities.

1.4 The results are applied to the current job as defined herein for determining worker protection such as respiratory protection or for other purposes as determined by the competent person responsible for the current job. The results of the tests shall not be applied to current jobs that are expected to differ substantially from the test conditions in work practices, material properties or other factors that might affect the concentration of airborne asbestos fibers.

1.5 This practice is not intended to be used for asbestos abatement work for which the objective is the removal of asbestos-containing materials. It is designed to assess exposures for short-term repetitive tasks. Compliance with regulatory requirements as to the purpose of the work and limits on the quantity of asbestos-containing materials disturbed is the responsibility of the user.

1.6 This practice describes procedures for determining exposure to airborne asbestos fibers. It does not purport to determine the risk of acquiring an asbestos-related disease for any individual, trade or work practice, nor does it represent that compliance with any criterion constitutes a “safe” level of exposure that is free of such risk.

1.7 *Hazards*—Asbestos fibers are acknowledged carcinogens. Breathing asbestos fibers may result in disease of the lungs including asbestosis, lung cancer, and mesothelioma. Precautions should be taken to avoid breathing airborne asbestos particles from materials known or suspected to contain asbestos. See 2.2 for regulatory requirements addressing asbestos.

1.8 The values stated in SI units are to be regarded as standard. The values given in parentheses are mathematical conversions to inch-pound units that are provided for information only and are not considered standard.

1.9 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards*:²

E1368 Practice for Visual Inspection of Asbestos Abatement Projects

E2356 Practice for Comprehensive Building Asbestos Surveys

E2394 Practice for Maintenance, Renovation, and Repair of Installed Asbestos Cement Products

D7712 Terminology for Sampling and Analysis of Asbestos

2.2 *Other Documents*:

29 CFR 1926.1101 Occupational Exposure to Asbestos: Construction Industry Standard, August 10, 1994³

¹ This practice is under the jurisdiction of ASTM Committee D22 on Air Quality and is the direct responsibility of Subcommittee D22.07 on Sampling and Analysis of Asbestos.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from Occupational Safety and Health Administration (OSHA), 200 Constitution Ave., Washington, DC 20210, <http://www.osha.gov>.