

JSC Safety and Health Requirements	JPR No.	1700.1L
	Effective Date:	12/20/2018
	Expiration Date:	12/20/2023
	Page Number	Page 11.4-1 of 3

Chapter 11.4 Asbestos Control Regulations

11.4.1. Introduction

Medical evidence linking asbestos to chronic disease has led to efforts to control or reduce asbestos exposure, particularly in environmental and occupational settings where exposure can be prolonged. Both OSHA and the EPA have published regulations concerning asbestos exposure. State regulatory agencies, TDSHS, and the Texas Commission on Environmental Quality (TCEQ) have become involved in administering certain aspects of the regulations. Failure to follow regulations and apply adequate standards of care in asbestos-related activities may result in unnecessary risk to employees and building occupants.

11.4.2. Occupational Safety and Health Administration

11.4.2.1 OSHA has issued two separate asbestos standards that cover the vastly different conditions in general industry and construction workplaces. These standards were established in the Code of Federal Regulations, Title 29, Part 1910, Section 1001 for general industry (29 CFR 1910.1001) and in the Code of Federal Regulations, Title 29, Part 1926, Section 1101 for the construction industry (29 CFR 1926.1101). These standards establish permissible exposure limits (PELs) and numerous requirements that employers need to meet. Asbestos workers shall use these standards in conjunction with Part 11 to ensure compliance with federal regulations. OSHA regulations cover the following:

- a. Both regulations establish requirements for protecting employees and recordkeeping.
- b. The OSHA PEL for asbestos exposure is 0.1 f/cc of air as an 8-hour Time-Weighted Average (TWA); OSHA also has a 30-minute TWA excursion limit of 1.0 f/cc. These limits apply to workers performing operations involving asbestos products and to construction workers performing abatement, demolition, or renovation involving ACM.
- c. Additionally, 29 CFR 1926.1101 defines the classes of asbestos-related construction work. These classes are:
 - (1) **Class I asbestos work.** Activities involving the removal of thermal system insulation (TSI) or surfacing material that has been identified as ACM or is presumed to be ACM (PACM).

NOTE: From 29 CFR 1926.1101(b) – surfacing material means material that is sprayed, troweled on, or otherwise applied to surfaces of ceilings, structural members, and other surfaces for fireproofing, acoustical, and other purposes.

- (2) **Class II asbestos work.** Activities involving the removal of ACM that is not TSI or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard systems, floor tiles and sheeting, ceiling tiles, roofing and siding shingles, and construction mastics.

NOTE: From 29 CFR 1926.1101(a)(8) – the OSHA Construction Industry Standard does not apply to asbestos-containing asphalt roof coatings, cements, and mastics.

- (3) **Class III asbestos work.** Repair and maintenance operations where ACM, including TSI and surfacing ACM and PACM, is likely to be disturbed.

JSC Safety and Health Requirements	JPR No.	1700.1L
	Effective Date:	12/20/2018
	Expiration Date:	12/20/2023
	Page Number	Page 11.4-2 of 3

NOTE: From 29 CFR 1926.1101(b) – Disturbance means activities that disrupt the matrix of ACM or PACM, crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM. Disturbance includes cutting away small amounts of ACM and PACM, no greater than the amount that can be contained in one standard-size glove bag or waste bag, to access a building component. The amount of ACM or PACM disturbed shall never exceed that which can be contained in one glove bag or waste bag, not to exceed 60 inches in length and width.

(4) **Class IV asbestos work.** Maintenance and custodial activities during which employees contact but do not disturb ACM and activities to clean up dust, waste, and debris from Class I, II, and III activities.

- d. In addition to the asbestos standards, OSHA has also issued other standards related to specific safe work practices. Most notable of these is 29 CFR 1910.134, “Respiratory Protection.” Both 29 CFR 1910.1001 and 29 CFR 1926.1101 reference this standard. Any employer requiring workers to wear respiratory protection shall meet the requirements of 29 CFR 1910.134. This includes a written Respiratory Protection Program plan reviewed by the NASA-JSC Occupational Health Officer or his or her designated representative.

11.4.3. Environmental Protection Agency

11.4.3.1 Two sets of EPA regulations affect activities at JSC involving ACM:

- a. In the first, the EPA regulates asbestos as a hazardous pollutant under the Clean Air Act. The standard, National Emissions Standard for Hazardous Air Pollutants (NESHAP), was established in the Code of Federal Regulations, Title 40, Chapter 1, Subchapter C, Part 61, Subpart M, paragraphs 140 through 157 (40 CFR 61 Parts 140–157). Both building owners and asbestos-removal operators are responsible for complying with the standard.
- b. This EPA regulation focuses on the removal of ACM during demolition and renovation activities in buildings, emission of asbestos fibers, and disposal of asbestos waste. The standards are related to environmental controls, not to worker protection. This EPA standard, which governs emission of asbestos fibers into the atmosphere, stipulates that there shall be no visible emissions from any asbestos-using operation, waste disposal site, or sanitary landfill. It also requires a variety of dust-suppressing procedures. Special procedures relating to roof removal may be found in 40 CFR 61, Appendix A— Interpretive Rule Governing Roof Removal Operations.
- c. The second set of EPA regulations is “Asbestos-containing Materials in Schools” (40 CFR 763), which was promulgated under the Toxic Substances Control Act. While this regulation was aimed primarily at ACM in schools, it has become a standard for accepted practice. This regulation also states that response actions are completed when clearance air samples have fiber concentrations of ≤ 0.01 f/cc of air. Changes to this regulation in 1994 modified training requirements and added applicability to public and commercial buildings, including government-owned buildings. The OSHA regulations refer to 40 CFR 763 in some of their criteria, especially for training requirements.

JSC Safety and Health Requirements	JPR No.	1700.1L
	Effective Date:	12/20/2018
	Expiration Date:	12/20/2023
	Page Number	Page 11.4-3 of 3

11.4.4. Texas Department of State Health Services

Texas has enacted an asbestos contractor licensing law that can be found in the Texas Administrative Code (TAC). You can find these requirements in Title 25, Part 1, Chapter 295, paragraphs 31 through 73 (25 TAC 295.31–295.73), also known as the Texas Asbestos Health Protection Rules (TAHPR). This regulation requires contractors performing asbestos-related work in public buildings to have appropriately trained and licensed personnel for planning, supervising, and conducting asbestos work. The TDSHS also has primary responsibility within the state for enforcement of EPA NESHAP regulations under authority delegated by the EPA.

Note: The TAHPR has limited authority over the buildings at JSC as they fall under the definition of “commercial building” because they are owned by the federal government. For example, personnel performing asbestos work in JSC buildings must meet the training requirements of 25 TAC 295.31-295.73 but do not need to have licenses issued by the TDSHS. Other provisions of this regulation may also not apply to JSC.

11.4.5. Texas Commission on Environmental Quality

The TCEQ has established requirements for the disposal of asbestos waste. Texas has designated ACM as a Class I waste. You can find this designation in Title 30, Part 1, Chapter 335, subchapter R, paragraphs 501 through 521 (30 TAC 335.501–335.521). Dispose of any ACM waste generated at JSC per all Texas requirements found in 30 TAC 335, “Industrial Solid Waste and Municipal Solid Waste.”

11.4.6. Harris County

The Harris County Health and Environmental Department has issued no asbestos control regulations.

11.4.7. City of Houston

The City of Houston has issued no asbestos control regulations that apply to activities on federal property.